

# **Initial Experiments Investigating the Nature of Hypnosis**

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## **INTRODUCTION**

During the 1923-24 formal Seminar on Hypnosis at the University of Wisconsin under the supervision of Clark L. Hull, the author, then an undergraduate student, reported for the discussion by the postgraduate students of the psychology department upon his own many and varied experimental investigative findings during the previous six months of intensive work and on his current studies. There was much debate, argument and discussion about the nature of hypnosis, the psychological state it constituted, the respective roles of the operator and the subject, the values and significances of the processes employed in induction, the nature of the subjects' responses in developing trances, the possibility of transcendence of normal capabilities, the nature of regression, the evocation of previously learned patterns of response whether remote or recent, the processes involved in individual hypnotic phenomenon and in the maintenance of the trance state, and above all the identification of the primary figure in the development of the trance state, be it the operator or the subject. The weekly seminars were scheduled for two hours each, but usually lasted much longer, and frequently extra meetings were conducted informally in evenings and on weekends and holidays, with most of the group in attendance.

No consensus concerning the problems could be reached, as opinions and individual interpretations varied widely, and this finally led the author to undertake a special investigative project in October 1923. This special study has remained unpublished, although it was recorded in full at the time, as were many other studies. One of the reasons for the decision not to publish at that time was the author's dubiousness concerning Hull's strong conviction that the operator, through what he said and did to the subject, was much more important than any inner behavioral processes of the subject. This was a view Hull carried over into his work at Yale, one instance of which was his endeavor to establish a "standardized technique" for induction. By this term he meant the use of the same words, the same length of time, the same tone of voice, etc., which finally eventuated in an attempt to elicit comparable trance states by playing "induction phonograph records" without regard for individual differences among subjects, and for their varying degrees of interest, different motivations, and variations in the capacity to learn. Hull seemed thus to disregard subjects as persons, putting them on a par with inanimate laboratory apparatus, despite his awareness of such differences among subjects that could be demonstrated by tachistoscopic experiments. Even so, Hull did demonstrate that rigid laboratory procedures could be applied in the study of some hypnotic phenomena.

Recently published papers concerning the realities of hypnosis have led to a rereading and analysis of the author's notebooks in which numerous unpublished studies were fully recorded. (Credit for this practice should be given to Dr. Hull, and the author often wonders what happened to the bookshelves of notebooks which Dr. Hull himself maintained, full of his own unpublished studies.) The rereading of this material produced the data upon which this paper is based, permitting this report on experimental investigations into some of the apparent misunderstandings of hypnosis which are still variously accepted without careful critical thinking.

## **EXPERIMENTAL PLAN**

As originally planned and executed, this early experiment to secure some of the answers to the intriguing questions confronting the seminar group was so organized that it did not involve the use of hypnosis. Rather, it was based upon a consideration of the concepts of introspection developed by E. B. Titchener, Wilhelm Wundt, W. B. Pillsbury, and others, and was organized as a direct inquiry into these concepts as a possible initial approach to a later identification of hypnosis or of some of its phenomena. A central consideration in the proposed experimental project was suggested by the well-known Biblical saying, "As a man thinketh in his heart, so is he," a point made in the seminar discussions by several of the discussants. Professor Joseph Jastrow, who was then head of the psychology department, aided and advised the author in his plan of experimentation. Jastrow himself was only slightly interested in hypnosis, but he was interested in the author as a student. Hull was not consulted, nor did he know of the experiment until it was completed.

## **SUBJECT SELECTION**

The securing of subjects was relatively easy, since any college population offers a wealth of volunteers. Two elements of selectivity were employed. All students taking psychology were excluded. All students who were acquainted with the author were excluded for the reason that they might know that he was interested in hypnosis. Both male and female undergraduates were employed, most of them by mere chance being sophomores. Among them there was a predominance of agricultural, home economics, engineering, commerce, and liberal art students, with an approximately even distribution of sex, and of comparable ages.

To these students individually, using prepared typewritten material, a plausible, somewhat interesting, but definitely superficial explanation was given of the concept of "introspection." A comparably carefully worded invitation was extended to each of them to participate in an experiment; this embraced the idea that the experimenter proposed to do research consisting of "discovering the processes of thought in thinking through from beginning to end any specified task." As an illustrative example, it was pointed out that people know the alphabet and can recite it fluently. However, the majority of those same people cannot recite the alphabet backward correctly from Z to A except by a slow "back-and-forth process of thinking." To those who promptly demonstrated that they could recite the alphabet backward easily, a second example was offered, namely, the

extreme difficulty that would be encountered in reciting backward the entire nursery rhyme of, "Mary had a little lamb —."

It was then explained that a much simpler task was in mind for them to do, and they were earnestly asked not to do any reading of Titchener's "work on thought processes" (Titchener's name was repeatedly mentioned to discover any previous awareness of his work, to emphasize "thought processes," and to distract their attention from the word "introspection").

They were individually apprised of the possibility that the task might take from one half to two hours, and a clock was indicated in full view, running silently, located directly in front of them on a shelf on the laboratory wall. The experimenter, it was explained, would sit quietly behind a screen some 12 feet to the rear and would not be visible; he could be spoken to or questioned if the desire or need arose, but it was preferred that the task once begun be done in complete silence, so that there would be no distractions or interferences.

What the subjects did not know or observe was that a mirror was so arranged carelessly among odds and ends in a jumble of laboratory apparatus so that the author had a full view of the subjects' faces by means of an obscure peephole concealed by the patterned design on the screen.

From a typewritten copy each subject was separately given the following instructions:

"You are to seat yourself in this chair comfortably, just looking straight ahead. With your eyes open you are to imagine that there is a small table standing beside the right (left in the case of those left-handed) arm of the chair. Your arms are to be resting comfortably in your lap. On that imaginary small table you will imagine that there is a large fruit bowl filled with apples, pears, bananas, plums, oranges, or any other kind of fruit you like, but do not turn your head to look in that direction. All of this imaginary fruit you can imagine as being in easy reach of your hand resting in your lap.

Next you are to imagine a table of normal height on the bare floor just in front of you, just far enough away so that you would have to lean a little forward to place anything on it.

Now the task to be done is for you to sit in the chair looking straight ahead and *mentally go through the processes step by step and in correct order* of thinking at a mental level only of the task of lifting your hand up from your lap, of reaching up over the arm of the chair, of feeling elbow and shoulder movements, the lateral extension of your arm, the slight lowering of your hand, the touching of the fruit, the feel of the fruit, the selection of any one piece, of closing your fingers on it, lifting it, sensing its weight, moving your hand with the fruit up, back over the arm of the chair and then placing it on that imaginary table in front of you. That is all you have to do, just imagine the whole thing. If your eyes get tired or if you

can think your thought processes out more clearly with them shut, just close them. You should expect to make errors in getting each step in the right order, and you will have to pause and think back just as you would in trying to think the alphabet (or the nursery rhyme) backward, and it is only reasonable that you will make mistakes and have to go back and start over again. Just take your time, and do it carefully, silently, really noting each of your thought processes. If you wish, I will reread these instructions, and you may realize that perhaps you might have such a thought as first picking up an apple and then changing your mind and deciding to pick up an orange. [All subjects wanted a second reading, some a third.]

Now that the instructions are clear, let's look at the bulletin board on the wall over there, and when the minute hand of the clock is directly on one of the numerals of the clock face, we will both take our positions and the experiment will begin."

## **THE EXPERIMENTAL RESULTS**

There were three general types of results obtained from a total of 63 subjects. These may be classified for the purpose of discussion into three general categories: none; fright reactions; and full participation.

Concerning the first category, which included 18 subjects, they became restless, demanded further repetitions of instructions, and finally declared their total disinterest in the entire project, declaring that they could not do it, that it did not seem to make any sense, or simply that they were no longer interested in participating. Engineering and agriculture students predominated in this group. The author's tentative conclusion was that such students preferred concrete realities to abstract imagining.

The second category, including 13 students, was much more interesting. They became frightened even to a state of panic, interrupted the experiment to demand reassurance, and finally refused to continue. (Unfortunately no personality studies had been done on them, nor did the author then have enough clinical experience to appraise them as personalities.)

Their reactions were described variously by them, but usually concerned uncontrollable and involuntary upward movements of the dominant hand; peculiar numb sensations of the legs, a feeling of rigidity of the body, and a blurring or closing of the eyes that they felt they could not control. To all of this they reacted with a frightened feeling, which alarmed them, this alarm then allowing a freedom of action, which led to an emphatic demand to be excused. The experimenter accompanied his dismissal of them by elaborately expressed gratitude for the clarity of their demonstrations of "one of the aspects of intense mental concentration." This proved to be a most reassuring manoeuvre, so much so that three subjects then volunteered to repeat the experiment. The offers were not accepted, assurance being given that the experimenter was already satisfied with their contribution.

The third group, numbering 32, manifested to varying degrees some remarkably similar forms of behavior. These may be listed as (1) slow loss of the blink reflex; (2) altered respiratory rhythm; (3) loss of swallowing reflex; (4) development of ideomotor activity in the dominant hand; (5) exceedingly slow movement of the hand and arm up and over the arm of the chair; (6) slow closing of the eyes, usually at some point preceding or during the ideomotor movement of the hand and arm; (7) groping movements of the fingers, as if selecting an object at the site of the imaginary fruit bowl; (8) a lifting movement involved in picking up an object, and a slow leaning forward, seemingly placing the object upon the imaginary table; and (9) then leaning back in the chair and *continuing to rest quietly*.

The experimenter was at a loss as to how to proceed the first time that this succession of events occurred, which was with the third subject. The first two subjects had rejected the task. Intense study of the quietly resting subject's face indicated that a deep trance had been induced. Yet there had been no mention of hypnosis; the author's then naiveté and inexperience with human behavior in a rigid, circumscribed, experimental situation did not permit him to grasp the significance of the situation immediately. The entire purpose had been to study behavior in two *presumably* different circumscribed situations; in one of these, designated as a hypnotic situation, the author felt that it was distinctly possible that the operator was the dominant and effective active figure; and the second, presumably different form of behavior was characterized by the non-participation of the operation with the subject as the active person.

The subject passively waited, while the experimenter considered that there had been a foundation for genuine hypnotic rapport because the original joint participatory activity concerned in the giving and receiving of instructions, the looking at the bulletin board while awaiting the minute hand of the clock to reach a numeral, and the separate but joint taking of respective positions. Acting upon this tentative assumption, and still remaining behind the screen, he remarked, "I think you have certainly worked on this concentrating long enough now, so it will be all right if you leave, because I have to stay and write this up."

Slowly the subject awakened in the manner characteristic of the hypnotic arousal pattern of behavior, commented, as he looked at the clock, that the time had seemingly passed remarkably rapidly, and then departed.

The previous two subjects who had failed were engineering students; this one was an English major. It was reasoned again that the engineers were more interested in concrete realities, and that the student of literature was interested in abstractions of thought. Despite this early significant experimental occurrence with the third subject, and thence the expectation of similar possibilities in the experimenter's mind thereafter, a total of 31 subjects failed in random order, three of them being among the final five, and the very last subject was a failure in a fashion similar to the first two subjects.

The 32 subjects who manifested hypnoticlike behavior showed various degrees of what could be regarded as trance states, and some spontaneously made comments aloud about

their behavior. Thus one subject made the accurate observation, "I not only talk with my hands, I think with them." Another, a music student, remarked similarly, "Every time a little old melody runs through my head, I just can't help beating time to it with my foot, and now with thoughts running through my head, I'm moving my arm." Both appeared to be commenting only to themselves.

Even more noteworthy was the behavior of some other subjects. One such subject, judging from his finger movements "picked up" an apple or an orange which he "placed on the table" and then he deliberately "reached" again into the "fruit bowl," apparently selected and ate two hallucinatory bananas, going through the motions with both hands of peeling them, and then dropping the "peelings" into an apparently hallucinated wastebasket on the other side of the chair. Another subject, after apparently "placing" a banana on the "table," asked the author if she might have an orange to eat. Consent was given; she leaned over and, with open eyes, selected an orange as if visually, went through the motions of picking it up, peeling it, and apparently putting the peelings on the arm of the chair, and eating it, and then, seemingly at a loss how to dispose of the peelings, finally leaned forward and placed them on the imaginary table slightly to one side of where she had previously placed the banana. When she had finished this hallucinatory activity, she opened her handbag and dried her mouth and hands with her handkerchief.

Another subject asked if he might take an apple home with him, specifying "that big red one there," explaining that he wanted to take it to his room to eat while be studied. Consent was given, and he went through the motions of picking it up and putting it in his jacket pocket.

The same procedure was followed in arousing these apparently hypnotized subjects as had been employed with the third subject. This unprovided-for variation in the planned procedure had of necessity been improvised by the experimenter with the third subject, and since the first two subjects were uncooperative and had been dismissed, its introduction was not considered to be an undue variation in procedure.

The same words of reassurance were used for each of the group manifesting "fright reactions," thus making that enforced alteration of experimental procedure a constant factor in the experiment.

A variation of procedure involved a half-dozen subjects who apparently did not completely arouse from the trance state immediately upon instruction. This situation was met by walking with these subjects out of the laboratory and outside the building through a nearby side-door, making the comment "Well, before I write up my report, I'll have a breath of fresh air." This proved to be a sufficient procedure to arouse the subjects completely.

Some subjects who revealed only a partial or no amnesia for what they had done were surprisingly noted to continue to hallucinate after awakening the fruit bowl and its contents and the large and small tables, as actual objects and some even commented with

curiosity, remarking that they had not seen those objects when they first entered the room. These comments were always evaded by the expedient of pleading pressure of work in writing up immediately the account of the experiment.

But there were 12 subjects who demonstrated a total amnesia from the moment of sitting down in the chair as they looked at the clock until the close of the session. Several, upon arousing, were startled by the length of time that had passed, as noted by again regarding the clock. The passage of time was obviously a surprise to them, and this confused several, each of whom declared, "But I'm just ready to begin." Others looked bewildered, glanced at the clock, and asked what had happened. None of this group continued to hallucinate either the large or small tables or the bowl of fruit, but one subject remarked that his mouth felt and tasted as if he had eaten a banana.

In no instance was any explanation given to or by the subjects except to say that they had "really concentrated."

### **CONTINUATION OF EXPERIMENTAL STUDY**

Some three months later the 31 subjects who did not complete the experiment—that is, the 18 who had not been willing or able to begin and the 13 who had been frightened away—were again approached individually with a new request.

This request was that they participate in a new experiment—namely, that of being hypnotized. All but one agreed, this one being in the first category of complete non-participation, and several agreed but seemingly reluctantly. (These included some of those who had been frightened.)

In a different room, but comparable to the first, subjects were met individually, and it was explained that they were to seat themselves comfortably with their hands in their lap in a chair before a writing table on which was a pad of paper and a pencil. They were to look continuously at the pencil until their hand picked it up and started to write involuntarily. They were to concentrate secondarily on the lifting of the hand and primarily on seeing the pencil begin to write, and to do nothing more.

Again the experimenter retired to watch through the peephole in the previously prepared screen at the full-face mirror view of the subject which was afforded by several mirrors spaced so as to give full views from different angles. These mirrors were all obscurely and inconspicuously placed in stacks of laboratory apparatus.

Of the 30 subjects, 10 gave up. These were again all agricultural and engineering students, and none was from the frightened group. The remaining 20 all developed trance states of varying depths. Of the 18 who had originally walked out during the first experiment without more than a semblance of cooperation, seven remained. Of these, three developed a somnambulistic trance, three a medium trance, and one a light trance. The criteria at that time employed to classify these subjects as somnambulistic were simply the presence of open eyes, automatic writing, and a total subsequent amnesia. The

criteria for a medium trance were a partial or a selective, but not total, amnesia. Thus there might be a memory of reading what had been written, but it was regarded as the hand, not the subject, that picked up the pencil and wrote. Light trances were so classified when adequate ideomotor activity occurred, but when there was full recollection of the events and an expressed description, "I could feel and see it happening to me, but I couldn't help it. It didn't seem to be me doing the movements."

All of the previously frightened group, 13 in number, developed trance states, four of whom were somnambulistic, seven medium, and two light. Of significance was the fact that the seven medium- and the two light-trance subjects spontaneously volunteered the information that going into hypnosis was "exactly like introspection and concentration." They described in detail the terrifying sensations they had felt originally, and the re-experiencing of the same feelings again, but with the comforting knowledge that they had been told that they were to be hypnotized, an idea that had evidently reassured them and effectively abolished their fears. They expected to feel different when hypnotized, and this understanding was reassuring. It served to allow them to accept the experience, not to effect it.

The somnambulistic subjects were subsequently questioned directly in the trance state for their feelings as they had developed the hypnotic state. They all reported having the same subjective feelings that they had experienced in the "introspection and concentration experiment" and volunteered the information that they now knew that they had then developed a trance state, but did not so realize it at the time. The four somnambulistic subjects, who had also previously reacted with alarm, explained that the "unexpectedness of strange feelings" had frightened them. Knowing now that hypnosis was being employed, they had available an understanding of their subjective experiences, and hence there had been no alarm.

The original experiment of "introspection" was again repeated with all of the previously successful subjects, with the result that all except seven developed somnambulistic trances, and those seven all developed medium trances. The subjects previously manifesting light trances now developed medium or somnambulistic trances.

The experiment with pencil and paper was then repeated with the subjects who had been successful in the "introspection experiments," this time as an experiment in hypnosis. Hypnotic trances were induced in all subjects very quickly, and practically all were somnambulistic.

All of these subjects were used by Clark L. Hull's graduate students and also by the author during the second semester's continuation of the seminar, particularly in the conduction of various studies for publication in Hull's book and elsewhere, in replicating the author's reports during the first semester, and in the demonstration of the elicitation of other hypnotic phenomena.

## **ADDITIONAL EXPERIMENTATION**

When the above-described experiments were almost completed, a particular event occurred during a seminar meeting. Some of the graduate students had been pursuing the hypothesis that "suggestions" constituted no more than a point of departure for responsive behavior, but that the manner and fashion in which these hypnotic suggestions and commands served as points of departure for complex hypnotic phenomena which were not encompassed by either the apparent or implied meaningfulness of the words employed seemed to be inexplicable problems. Out of the unsatisfying and divergent views and the more or less relevant discussions the author seized upon, for an immediate experiment, the narration of her anger pattern by Miss O, whom he knew fairly well as a group member but not as a person, although he knew a lot about her family history.

Miss O's long-established anger pattern was of a temper-tantrum character. Whenever angered or frustrated by her father or mother, she, an only child, would turn away suddenly, rush upstairs to her bedroom, slam the door, throw herself on her bed, and burst into angry sobbing. She consented to accept the following "suggestion": "Go down the flight of stairs just beyond this seminar room, step outside the building through the side door at the foot of the stairway, look over the campus briefly, come back inside the building, look about briefly, then rush upstairs with increasing speed, rush in here slamming the door behind you, and fling yourself into your seat at the conference table."

With obvious embarrassment she consented, and a few minutes later, while the group waited expectantly, Miss O could be heard running up the stairway. She rushed into the room, flushed of face, slammed the door behind her, threw herself into her chair, resting her face on her arms on the table, and to the bewilderment and amazement of the group including the experimenter, burst into uncontrollable sobbing.

After some minutes of sobbing Miss O straightened up and furiously berated the experimenter for his "outrageous suggestion," and then turned her wrath on the entire group for their "shameful conduct." Then, with equal suddenness, her anger left her, and in a bewildered and startled fashion she asked, "Why did I get so angry?"

There followed much excited discussion and questioning until someone asked Miss O at what point her anger had developed. To this she could reply only that she had no idea, and she then readily and interestedly agreed to repeat the experiment with the addition that this time she was "to note exactly where you are when you develop anger."

As she left the room, she remarked with calm interest that it seemed to her that she had become angry on the way upstairs, but that she was not certain.

There followed an exact repetition of her previous behavior but with the exception that when she again began to berate the experimenter and the group, she suddenly recognized her reality situation, stopped, laughed through her tears, and said, "Why, I did the same thing again." She then explained, "I was thinking that I had been about halfway upstairs before, but then I suddenly got so angry I couldn't think until just now. But please don't

talk to me because I still feel angry and I can't help it." Her facial expression and tone of voice confirmed her statement.

Shortly, however, evidently recovering her composure, she joined in the discussion of her behavior with interest and without embarrassment.

Later in the discussion she was asked again by the experimenter if she were willing to repeat the experiment. She hesitated a moment and then agreed. As she walked toward the seminar room door, she commented that it would not be necessary to go through the entire procedure, but that she could just mentally review the whole task, step by step. As she completed this comment she opened the door to leave the room, but immediately slammed it shut and whirled on the experimenter screaming, "You—you—you!" She then burst into tears and collapsed in her chair, sobbing. Shortly she again composed herself and asked to be excused from further participation in such experimentation.

A few seminars later, when the experimenter had completed his study as described above, Miss O was asked again about her previous demonstrations. She manifested embarrassment but reluctantly expressed a willingness to discuss them.

At once the author explained, "I don't want you to go downstairs or to get angry. All you need to do is sit right there, rest your head on your arms on the table and quietly, very quietly, and very comfortably, remember every step you made going downstairs, opening the side door, looking over the campus, coming back inside, and looking up and down the hallway as you did before you started for the stairway. *Then when you have got that far in your thinking, sit up straight and look at me.*"

Miss O readily acceded to the request, and shortly straightened up and looked at the author, who was sitting directly opposite her at the conference table. As she did so, it was apparent to everyone that she was in a deep somnambulistic trance, and she was found to be in rapport only with the experimenter, being completely out of touch with her actual surroundings. She did not respond in any way to the group members, was passively responsive to the experimenter, and catalepsy, ideosensory phenomena, dissociation, apparent regression, and anaesthesia could be demonstrated. When she was asked to develop hand levitation, she apparently failed. Previous experience with other subjects led the experimenter to suggest hand levitation with the other hand. Apparently again she failed.

The experimenter then carefully stated, "I want to start hand levitation with you again, *doing so from the very beginning.* When you are ready, nod your head to let me know." Shortly she nodded her head, whereupon the experimenter slowly and systematically suggested right-hand levitation to be continued to a level higher than her head. As the author gave his suggestions, the group watched her hand. There was no upward movement. The experimenter, watching her head and neck for muscle tension, finally remarked, "That's fine. Now place slowly and gently and deliberately your left hand on the back of your right hand." Slowly, she lifted her left hand upward above her head, slowly moving it across the midline, then lowering it slightly and letting it come to rest,

while the rest of the group stared in silent wonderment. At the cessation of the movement of her left hand she was asked if it were on top of her right hand. She slowly nodded her head affirmatively. This was only the third time the experimenter had encountered hallucinatory hand levitation, and the first instance had bewildered him immensely. Comparable hallucinatory hypnotic behavior of other forms has since been encountered occasionally in the author's subjects and those of others. Unfortunately lack of critical observation or inexperience sometimes leads to the inference that the subjects are unresponsive rather than the realization that they are most responsive in a more complex fashion than was intended, and that the requested hypnotic behavior is being subjectively experienced on a hallucinatory level.

In this instance, in demonstrating hypnotic phenomena with Miss O, hand levitation had been left as the final demonstration for one certain reason. Miss O, in the previous experiment dealing with her anger reaction, had been asked to run *up* the stairway. Hence the experimenter was being very cautious about a renewed use of the word *up* or a word of similar meaning because of the possible association with the previous use of the word. He had expected only likelihood of anger development, but with the failure of beginning levitation he had visually checked her neck muscles for evidence of tension which had been noted in the two previous subjects who had hallucinated hand levitation.

Indicating silence to the group, he asked Miss O to rest her hands comfortably in her lap and indicate if she were willing to answer a few general questions about the time she manifested anger for the experimenter. She nodded her head affirmatively.

She was then asked, "Are you now just like you were then, or perhaps I should say, Are your present mental state and your mental state at that time the same or identical?" Her face developed a thoughtful expression, and then slowly she nodded her head affirmatively. She was asked, "Will it be all right for me to ask you now to feel those feelings that you then developed?" Her reply was a verbal, "Please don't." "Why not?" "I don't want to get angry." She was asked if she wanted to do anything more. After a few moments she replied, "No." Accordingly she was asked to put her arms on the conference table, to rest her head upon them, and then "straighten up, just like you were when I first asked you to do this same thing." This she did, becoming fully awake with a seemingly total amnesia for the entire trance experience.

One of the group asked her if she could be hypnotized, to which she answered that she never had been but thought she would like to be, and she expressed an immediate willingness to act as a subject.

She was asked by the author to place her hands palm down on her thighs and to watch her *right hand*. Essentially similar hand-levitation suggestions were given as before, but this time, because of the instruction to *watch* her right hand which actually remained immobile on her lap, her visual hallucinating of the slow continuous rise of her right hand was apparent, until the direction of her gaze indicated that the hand was above her head level. Several of the group tried to question her, but she proved to be in rapport only with the experimenter.

She was asked by him if she had ever been in a trance before, the intended meaning being only during that day. Her answer was a simple "Yes." "How many times?" Instead of the expected answer of "Once?" she replied, "Four times." "When?" "Today, that other day." "What other day?" "When I got angry."

She was awakened, and an apparently total amnesia was demonstrated by the expedient of asking her again if she had ever been hypnotized, which elicited the previous negative reply and offer to volunteer.

Instead of overtly accepting her offer, a member of the group asked her if she thought she could do hand levitation. She replied, "I don't know but I'd like to try," immediately settling herself in position and duplicating without any further remarks or suggestions her previous hallucinatory ideomotor behavior and trance development. The member of the group who had put the question proved to be the only person in rapport with her.

She was asked to awaken from the trance state. Again she manifested amnesia. The next few hours of the seminar were spent discussing her behavior to which was added a discussion of the author's private experimentation. The entire sequence of events was disturbing and obviously displeasing to Dr. Hull, since he felt that the importance of suggestions and suggestibility and the role of the operator in trance induction were being ignored and bypassed, with the result that this approach to a study of hypnosis was then abandoned in the University of Wisconsin seminars.

## **FURTHER CONSIDERATIONS**

Since then, particularly after the author had received his doctoral degree and was finally officially permitted to resume experimental work at the Worcester State Hospital in Worcester, Massachusetts, much use was made of these learnings in developing the author's various techniques of indirect and permissive hypnotic induction.

In addition, and by way of contrasting their respective values, the author has done much experimentation on direct and authoritative techniques and on traditional, ritualistic, repetitive verbal techniques.

In general his findings, based upon experience with many thousands of subjects, have been that the simpler and more permissive and unobtrusive is the technique, the more effective it has proved to be, both experimentally and therapeutically, in the achievement of significant results. Also, his experience has been that the less the operator does and *the more he confidently and expectantly allows the subjects to do*, the easier and more effectively will the hypnotic state and hypnotic phenomena be elicited in accord with the subjects' own capabilities and uncolored by efforts to please the operator. However, it must be borne in mind that subjects differ as personalities, and that hypnotic techniques must be tailored to fit the individual needs and the needs of the specific situation.

Therefore users of hypnosis should be fully cognizant with all types of hypnotic techniques and fully appreciative of the subjects as personalities. They should bear ever in mind that the role of the operator is no more than that of a source of intelligent

guidance while the hypnotic subjects proceed with the work that demonstrates hypnotic phenomena, insofar as is permitted by the subjects' own endowment of capacities to behave in various ways. Thus the color-blind person can not be given visual receptors to receive color stimuli, but the person with normal color vision may be enabled to block the utilization of visual receptors of a specific type—just as happens in the common experience in ordinary everyday life, when a book with a certain clearly visible title cannot be found in the bookcase because it is blue-covered and the search has been made in a mistaken belief that it is red-covered, thereby utilizing a different frame of reference and thus defeating the effort to find the book.

It should also be kept in mind that moods, attitudes, and understandings often change in the subjects even as they are undergoing trance induction, and that there should be a fluidity of change in technique by the operator from one type of approach to another as indicated.

Unfortunately much experimentation is done in only rigid terms of the operator's limited understandings and abilities. Perhaps this may best be exemplified by such typical experiments as naively demonstrating such "antisocial behavior in hypnosis" as persuading a subject to open a new lipstick or to appropriate a dollar bill in a strict laboratory setting, in ignorance of the later demonstrated fact that the laboratory setting and the experimental situation alone, with no utilization of hypnosis whatsoever, may be so demanding as to elicit behavior contrary to the subjects' wishes, backgrounds, training, better judgments and even moral sense (Milgram, 1963). Further, such ignoring of the subjects' understandings in preference to the experimenter's belief that he is controlling conditions may lead to "experiments" in which the equivocation of waking and trance responses may actually be a product of the development of an identity of the subjects' supposedly different conscious states rather than the evocation of similar responses in genuinely different states.

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This experimental work was done long before any studies were being done on so-called simulation of hypnosis, in which subjects are asked by the experimenter to "simulate" hypnotic behavior. Many such reports have been made by various authors, who seem to be unaware that the best simulation is an actualization. Additionally in these so-called controlled experimental studies the simulating subjects often have had hypnotic experience, have witnessed hypnosis, and certainly have some preconceptions of hypnosis. Hence experimentation with such subjects leads to a doubt of the experimenter's scientific sophistication or integrity.

The above experiments were not done to determine if there could be a simulation of hypnosis and the achievement of comparable behavior. Rather, the experiment was designed for the purpose of determining the role importance of operator and subject. However, quite unintentionally it was discovered that if a non-hypnotic subject is innocently (the author admits his naiveté at that period in his scientific career) asked to perform, at a waking level, the same sort of behavior that can be used to induce a hypnotic trance, although no mention of hypnosis is made, a hypnotic state can

unmistakably result. There is no need to ask for simulation, since the task itself can lead to hypnosis. Hence one can only wonder at the scientific acumen of those who endeavor to demonstrate that requested “simulated hypnotic behavior” is otherwise than actual hypnotic behavior.

Additionally, the findings of this early experimentation have been confirmed throughout the years in the experience of this author and many of his colleagues. The operators or experimenters are unimportant in determining hypnotic results regardless of their understandings and intentions. It is what the subjects understand and what the subjects do, not the operators' wishes, that determine what hypnotic phenomena shall be manifested. Hence hypnotic experimentation which is evaluated in terms of the experimenters' plans, wishes, intentions, and understandings is invalid unless communicated to the subjects' understandings and so accepted. Evaluation should be purely in terms of the subjects' performances, and it is behavior, not the experimenters' words, that should be the deciding factor in appraising experimental work. Many clinicians have had the experience of weighing the advisability of hypnosis for a patient who requests it, only to find that the matter is entirely out of their hands because of a spontaneous trance. Not only this, the clinician may carefully suggest relaxation and have the patient respond with catalepsy and anaesthesia. Or the clinician may suggest anesthesia and discover that the patient is manifesting dissociation or even regression. At best operators can only offer intelligent guidance and then intelligently accept their subjects' behaviors.

# **Further Experimental Investigation of Hypnosis: Hypnotic and Nonhypnotic Realities**

Milton H. Erickson

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## **PRELIMINARY OBSERVATIONS**

The rejective attitude of Clark L. Hull toward the author's first experimental study of the nature of hypnotic phenomena (Erickson, 1964b) stimulated still further investigation intended to discover what tasks could be accomplished by the use of hypnosis in such areas as conditioned responses, anaesthesia, sensory changes, ideomotor activity and regression, among other fields of inquiry. All of this latter served to form a background of experience in regard to the intriguing question of what hypnosis is and what the hypnotic state really constitutes.

Of significant importance to the author in furthering his awareness that waking state realities were quite different from the realities of the hypnotic state was the following startling occurrence. Miss O had volunteered for continued experimental work with the author, and various hypnotic phenomena had been studied with her aid. Then one afternoon the author endeavored to discover what could or would happen when the wording of a suggestion was changed without there being any seeming significance to the alteration of the wording. Experimentally Miss O had been trained to hallucinate visually by opening her eyes, seeing nothing, then to become aware of a visual haziness and fogginess in which lines and shadows would appear slowly, and then progressively become clearer and more definitive until a complete, even elaborate, visual hallucination would result. To this could be added a faint suggestion of sound properly graduated suggestions that would become progressively clearer until elaborate auditory hallucinations could be elicited. (At that time the author's experience had not taught him that hallucinations could be induced more rapidly and easily.) The author was much interested in the nature and wording of suggestions that would be most effective and was very much under the mistaken impression that all hypnotic phenomena depended upon the induction of a somnambulistic trance state. (Undoubtedly this was a fortunate error, since it led the author to spend from four to 20 hours to train subjects to insure profoundly somnambulistic trance states for his experimental studies, especially those that involved possible extensive neurological and physiological alterations of bodily functioning, instead of the two to 10 minutes so frequently reported in the literature on hypnotic experiments, where if the work were to be done in the waking state, a much longer time would be allotted. Unfortunately even among those endeavoring to do scientific work, the attitude that hypnosis is miraculous and minimizes time requirements is still prevalent.)

Miss O had been worked with in the somnambulistic state so extensively that it was discovered that she could respond with a positive hallucination to the simple suggestion of "There is a nice pretty brown dog over there." She had learned to easily develop both negative and positive visual and auditory hallucinations to other comparable suggestions. On this particular occasion the author, intending to elaborate a complicated hallucinatory response, said with slow emphasis, "*THERE* is a nice pretty little *doggie* over there," and paused to elaborate further suggestions.

To his utter astonishment, during this pause Miss O replied in a childish tone of voice, "Uh huh, he's mine." Then as if speaking to the hallucinated dog, she spoke again in a definitely childish tone of voice, "Come to Alwis, doggie. Come here. Come here wight now."

For the next two hours the author bewilderedly and cautiously explored the situation and tried to correlate it with the suggestion given above and with previous comparable suggestions. The findings and conclusions reached were that:

1. Miss O had spontaneously regressed to a childhood state because of the childish implication of the word "doggie" instead of "dog."
2. The suggestion to induce a visual hallucination uttered in such a fashion may have been at a moment when a possible fortuitous train of thought in Miss O's mind served to evoke a revivification of childhood memories resulting in a spontaneous regression.
3. The author soon found that he had become transformed into a grownup cousin of hers and that the laboratory had become the front yard of her home.
4. Further suggestions to "create" the rest of her environment were unnecessary, since she talked freely in a childish fashion and pointed out various things on the "lawn" and "acwoss the stweet."
5. She used a vocabulary befitting her "seven" years of age, and she manifested typical childish failure to understand words beyond her vocabulary. Her behavior and manner and even movements were suggestive of a small child, and she seemed to see herself not as she was dressed at the moment, but presumably as she had been at the age of seven. (A wealth of data was easily secured, since she proved to be a most sociable and talkative "little girl.")
6. Extreme efforts were made by the author to avoid offering suggestions, but this proved unnecessary, since apparently Miss O was reliving item by item the events of a day in her eighth year.
7. Finally the author realized that he was confronted by a technical problem of reestablishing the original hypnotic situation—a most frightening (to him then) problem.
8. Finally the idea occurred of reestablishing the situation as it had been when the hallucinatory dog was first visualized by Miss O. Much painful thought was given to this problem while Miss O sat on the laboratory floor "paying with the fowers." (Subsequent inquiry disclosed that her extremely indulgent mother had purposely encouraged a continuance of "baby talk" long after the

- time it is usually outgrown. This baby talk seemed most inconsistent with the regressed age of seven in the laboratory situation and had distressed the author greatly.)
9. Discovery was made, as time passed in the laboratory, that the "doggie" had wandered away. Miss O leaped to her feet, called to the dog, manifested a violent temper tantrum, childishly sobbing and stamping her feet and clenching her fits. In frightened desperation the author gently suggested that "maybe the doggie is coming now." She burst into happy smiles, squatted on the floor, and seemed to be hugging the dog. The moment seemed to be propitious for the suggestion, "And now, just remember how everything was just a few minutes before you saw the doggie the first time."
  10. Miss O blinked her eyes, was obviously still in a somnambulistic state, but not regressed. Instead she was in good visual contact with the laboratory setting. Her immediate bewildered facial expression at finding herself sitting on the laboratory floor was followed by an angry, explanation-demanding look at the author, rendering the situation crystal-clear as betokening trouble for the author.
  11. She was asked if she wanted a full explanation. Her emphatic "Yes" left no doubts. Previous experience in restoring memories enabled the author to effect a complete recollection by her while she was still in the trance state and while she was still sitting on the floor.
  12. Miss O was obviously delighted and pleased with the whole course of events, going over them several times and affirming them as a revivification of a past reality.
  13. Still sitting on the floor, she asked that she be awakened from the trance, "Just tell me to wake up." The author hurriedly and unthinkingly acceded to her request.
  14. At once the author realized he was again in trouble. Miss O awakened at once, found herself sitting on the floor, glared angrily at the author, and demanded an explanation of the situation. However, her anger was so great that she gave the author a thorough verbal excoriation before she got up off the floor, when she again emphatically demanded an explanation. It was painfully realized that a full memory in the trance state did not necessarily continue into the waking state.
  15. Despite her angry demands, it became possible to relate bit by bit the events of that afternoon in their correct order, with the author repeatedly managing to throw in the suggestions of "And you remember, next—", "Remember how that led to," and "Now maybe you can remember the next thing—."
  16. Finally Miss O dropped her hand on the author's wrist in a friendly fashion and said, "Be still—I'm getting it all now."
  17. There followed, delightful for both the author and Miss O, a remarkably complete recall by her of all of the events of the afternoon, including the anger episodes.
  18. Miss O made an extensive list of her memories, later queried her parents, alarmed them greatly, but subdued them with a temper tantrum, and confirmed to the author the validity of that afternoon's regression experience.

19. In further "regression experiments" both she and the author had a strong desire to tread carefully. Limits of time, place, situation, and circumstances were always placed on regression as a primary procedure. All of which, in the opinion of both Miss O and the author, tended to circumscribe and limit results, while spontaneity of behavior led to more extensive findings and even more reliable results.
20. Working together and testing possibilities, a general type of permissive technique was elaborated to give rise to spontaneity of behavior by the subject. This was found to lead to more informative, reliable, and extensive results, not only for Miss O, but for other subjects as well. During the course of this work Miss O asked to be allowed to write out instructions for regression to a specific time. These were not to be known by the author, but, she explained, after she had been hypnotized, she was to be handed the typewritten instructions enclosed in an envelope with the directions from the author to read them and to act upon them. Additionally she added verbally that if she manifested any emotional distress, she was to be told by the author to awaken in the current time. She was asked to type these additional understandings and directions as a concluding part of her secret instructions. The reason was that in a self-induced regression state, it was considered possible that there might be a loss of rapport.

She developed a trance readily, opened the envelope, read the contents, and then began yelling at the author, "Get out, get out" while she cowered and cringed. At once the author yelled at her, "Awaken, awaken." She did so, short of breath, panting, shuddering and trembling, greatly puzzled about her "peculiar frightened condition." She asked aid in finding out what was wrong with her. She was handed the secret instructions, read them, remarked, "Yes, I know I wrote them out and added to them those additional instructions you suggested. But what has that got to do with the awful way I'm feeling?" This question led to the conclusion by the author that she had an amnesia for her recent trance state and self-induced regression. Accordingly she was asked if the induction of a trance and the execution of those secret instructions for which she might have an amnesia could account for her "peculiar condition." Immediately she demanded, "Tell me to remember; hurry, tell me to remember." She was so instructed. Her response was to sit down weakly in a chair and to gasp, "It did happen, it really did happen, and I wasn't sure it could, and I wanted to find out how real things were. I'll never do that again." She then read the special typewritten instructions and nodded her head affirmatively. Not until months later did she disclose to the author what she had attempted experimentally with such startling results. She explained with much embarrassment that she had happened to recall two summers previously during a vacation trip her practice of going for a swim at a private beach and then removing her bathing suit and stepping into the enclosed bathhouse for a shower. She had decided to regress to one such occasion but "to interpolate" the author into it as present at the beach. Her success in her venture

had appalled her and left no doubt in her mind about the subjective realities of hypnotic regression.

This particular work with Miss O was strongly influential in governing the course and development of the author's investigation of the hypnotic state and its phenomena, and rendered him exceedingly curious about the nature of the hypnotic state. The work with Miss O was repeated with variations added, with other subjects, both male and female. The results obtained from these other subjects were fully in accord with those obtained from Miss O.

### **PROBLEMS OF AWARENESS: INITIAL INVESTIGATIONS**

In general the author tended to follow his own patterns of working with hypnosis, but in the privacy of his own personal experimentation, he followed more and more the understandings gained from Miss O (who did not return to the university the next year because of her marriage) and which were confirmed by the other various highly instructive special experiences with male and female subjects, with whom the author continued his studies of hypnotic phenomena. This in turn led to an ever-increasing interest in the nature of hypnosis, the methods by which the hypnotic state of awareness could be differentiated from ordinary waking awareness, and the possible methods of procedure by which such a study could be made.

It was soon realized that one could not ask a subject in an ordinary state of awareness to simulate hypnosis, nor could one use as a subject one with hypnotic experience to differentiate between hypnotic and waking awareness, since the better the simulation, the greater would be the actualization. Nor could one be certain that an entirely naive subject would not unpredictably develop hypnosis as had been so well learned in the initial experiment on the nature of hypnosis cited above.

At first it was thought a reliable inquiry could be done by the seminar group by having some volunteer who knew nothing at all about hypnosis to demonstrate how a hypnotic subject, in a deep trance, would walk around the table at which the members of the seminar were seated while his behavior was observed. Several such subjects were secured, and they were informed after they entered the seminar room of what was desired of them. The result was always the same. The subjects would say, "You want me to walk around this table like a hypnotic subject in a deep trance when I don't even know what a hypnotic subject acts like, while you watch me pretending to be a hypnotized subject? The only way I can walk around this table while you watch me is to walk my own way unless you tell me how a hypnotized subject walks. Does he walk fast? Slow? Does he keep still? Does he speak to each of you? What does he do?" Repeated urging resulted only in further requests for information. Finally it was decided that a simpler approach be made by asking the subjects possessed of no personal knowledge of hypnosis to walk around the table as if they were in a light trance. The results were entirely the same as with the first group of subjects. After much discussion, it was decided that some member of the seminar group who had not been hypnotized but who had seen hypnosis, as all of them had, be asked to perform specific acts to simulate a hypnotic performance—but *in*

*so doing to remain in a state of conscious awareness*, giving his attention very carefully to the simulation of an agreed-upon list of tasks of which the subject would be unaware until he was asked to perform the acts. It was also agreed by the entire group that all the other members of the group would observe and note the adequacy of the simulation and the continuance of the waking state, and all agreed that any instructions to simulate hypnotic behavior would necessitate instructions for the maintenance of conscious awareness. Only in this way could there be any possibility of differentiating hypnotic behavior from simulated hypnotic behavior.

The first subject chosen was Miss O, who had demonstrated her capability to enter the hypnotic state spontaneously. She was asked to walk around the table simulating the somnambulistic state, since all the group knew she was capable of this behavior.

An unexpected development occurred. Miss O declared, "But I don't really remember how I moved or looked at things when I was in a somnambulistic state. I have seen other subjects in a somnambulistic state, and I know their pupils are dilated; I know they do not seem to hear anybody unless instructed to hear by the one who did the hypnosis; I have seen a detached manner, a dissociated way of behavior that indicated that they were out of touch with much of the surrounding reality. I don't know how to stay out of a trance and simulate that. I don't know how to dilate my pupils. I don't know how to hold my arm in an extended position and not feel a fatigue in my shoulder. I don't know how to inhibit my hearing so that I make no visible response to someone outside of the immediate hypnotic situation who is speaking to me. I don't even know how to freeze my face the way I see somnambulistic subjects do this kind of thing. From hearing the group discuss my somnambulistic behavior, I know that I can do all these things; but these things that are discussed do not seem real to me or even understandable unless I go into a trance."

At this point another member of the group who had been in a deep hypnotic trance and somnambulistic on several occasions stated, "I agree with Miss O. I can discuss somebody else's behavior objectively and observe it objectively, but when any of you start discussing what I did in the trance state, I lose my objectivity and drift into a trance state. I can feel what is being mentioned, but I am not then in the state of conscious awareness. I don't think it is possible to simulate without feeling the simulated behavior subjectively. I think it is like acting. Any good actor, whenever he acts out a scene of anger, feels angry. If he doesn't, he isn't a good actor. Poor actors just go through the motions, but they don't get another acting part because they haven't really sensed what they try to portray. I have taken part in various plays, and when I portray amusement, I feel it. When I portray interest in what another member of the cast is saying, I feel the interest. In fact the play becomes a reality to me, and I just don't think about the audience until the right time comes to be aware of the audience. I just simply get lost in the play, and it becomes very real to me. I don't think about what I am doing as portraying a part; I think of being that part. I know that if I tried to simulate hypnotic behavior in a real sort of way, I would go into a trance."

There was much discussion of Miss O's comments and the other speaker's remarks. (Digressive discussion of the various schools of thought concerning how one enacts a theatrical role were not considered pertinent to the question at hand.)

The question arose as to what observations would enable one to recognize hypnotic behavior. Various specific items of hypnotic behavior were discussed, one of them being automatic writing.

Miss O said, "Ordinarily I write like this [demonstrating], but if I tried to write automatic writing—." She ceased speaking at this point, and everybody in the group realized that she had unexpectedly developed a somnambulistic state of hypnosis.

The question arose at once about rapport. The author, who was out of Miss O's visual range, held up his hand and indicated that the entire group leave Miss O alone in the room and adjourn to an adjacent room to decide the order in which each of the group should speak to her. It was suggested that, since the author had hypnotized her repeatedly, he should be the last one. The group returned to the seminar room, where Miss O was still in the somnambulistic state. She made no response to anybody until the author asked her the same question everybody else had put to her, namely, "Would you like to awaken now?" She nodded her head affirmatively but remained in the trance while the entire group waited silently for over five minutes. There was no change in her behavior, no alteration of her expression. She seemed to be totally unaware that anyone was waiting. After a lapse of that time the author said, "All right, wake up now." She did so very promptly, with an amnesia for having been in the trance. She disclosed this by saying, "What I mean is I usually write like this, but if I tried to do automatic writing—." She repeated her previous behavior, and the author again awakened her with a continuing amnesia for her hypnotic behavior. Before she could say anything, the author asked her if she would like to hear some comments by the seminar member who had spoken about her feelings in playing dramatic roles, a comment expected by the author to be related to Miss O's behavior. However, the subject said, "I have been in a trance for three members of this group, and I wonder with which one of them I would show rapport if I developed a spontaneous trance while trying to simulate hypnosis and levitation." She paused, her hand slowly lifted, and she was observed to be in a trance. Beginning at the right, the first of the seminar group spoke to her without eliciting a response. The author, who was next in order, had the same results. The third person was found to be in rapport with her; so were the fifth and eighth persons. These three had been the ones who had hypnotized her previously.

### **PROBLEMS OF SIMULATION: INITIAL INVESTIGATIONS**

There were many hours spent discussing the various evidences manifested by the subjects in the trance state. It was agreed finally that one could go through the motions of simulating hypnotic behavior and retain full conscious awareness, but any "real portrayal of hypnotic behavior" resulted in the spontaneous development of a trance. Additionally it was found that inexperienced, uninformed subjects could not simulate hypnotic behavior unless they were told directly or indirectly what to do. Of even greater

importance it was discovered that experienced hypnotic subjects would simulate hypnotic behavior by going into a trance state, thereby manifesting actual hypnotic behavior, but that they could learn to simulate the behavior of the waking state. When this was done, an observant person could then point out minor discrepancies in behavior that betrayed the actual state of affairs. This was reported on in a much later experiment (Erickson, 1944).

As a result the author attempted a large number of experimental projects to secure simulated hypnotic behavior from both inexperienced and experienced subjects. The results obtained were always the same. The inexperienced, unsophisticated subjects simply did not know what to do but could easily learn to go into a trance state by being told how to simulate hypnosis. This has become a technique much used by this author, particularly with resistant subjects and patients who fear hypnotic states. Long experience has shown this author that it is a technique that can be used easily and quickly, especially with patients who respond to hypnotic psychotherapy but who are otherwise resistant to psychotherapy.

During these discussions of the simulation of hypnotic behavior, which took place during the scheduled and unscheduled meetings of the seminarians, there was also another type of occurrence which, to this author's knowledge, has not been reported in the literature. One such event, about which the author did not learn until later, concerned a graduate student in psychology who had been asked by a group of professors of biology and philosophy to give a private lecture-demonstration of hypnosis. This graduate student was not a member of the seminar group, but he had seen hypnosis demonstrated several times by the author. Accordingly he arranged with an experienced hypnotic subject to act as his subject for the evening demonstration. As was related to this author, there occurred a startling sequence of events. Approximately an hour before the lecture and demonstration the graduate student learned that his experienced subject would not appear, and he knew of no one else upon whom to call. He felt that he himself knew too little about hypnosis to undertake hypnotizing a novice, and he felt extremely distressed at the thought of disappointing this very special audience by failing to meet their wishes. In discussing this catastrophic (to him) development with his wife, in some way there arose the question of having someone pretend to be hypnotized. The graduate student refused this idea very strongly as being "scientifically dishonest," but he felt himself increasingly on the horns of a dilemma. Finally he decided to perpetrate this subterfuge on his audience, realizing that his honest discussion of hypnosis would not be invalidated by the subject's pretense of being hypnotized. The only pretense subject available was his wife, and the graduate student gave her a hurried description of the hypnotic phenomenon that she was supposed to pretend to develop. He was rather fearful that his own lack of experience might make it impossible for him to describe adequately the hypnotic behavior he wanted his wife to pretend to manifest. Furthermore he was most distressed by making his wife an "accessory" to "scientific dishonesty." His wife, who had never seen hypnosis nor had ever been hypnotized, assured him that she would put forth her very best efforts to enable him to give a satisfactory lecture and demonstration.

During the course of that rather long evening he was rather astonished and pleased with his wife's capability as an actress, but he was constantly fearful that he had not described

the various phenomena correctly and hence that she might make a mistake. At the close of the lecture, when the last of the professors had left, he sat down, extremely fatigued, dried the perspiration on his face with a handkerchief, and expressed his relief that "the whole thing was over with." He then made, half to himself and half to his wife, various statements about the inadvisability of "scientific dishonesty" for any purpose whatsoever. Receiving no comment from his wife, he looked up at her and slowly realized that she was still in a somnambulistic trance, since he had overlooked awakening her. This rather frightened him and led him to make cautious tests of his wife's hypnotic state, finally convincing himself that she was actually and unquestionably in a somnambulistic, hypnotic trance. Thereupon he asked her to awaken in accord with the procedures that he had seen demonstrated by this author.

He discovered that his wife had a total amnesia for all the events of the evening, that she still thought it was 7 p.m. and that they were awaiting the arrival of the professors. He tried to explain to her that she had been in a trance, had demonstrated hypnosis without his recognition of the fact that she had been in a trance, and that the lecture and demonstration had taken place. She disputed him and was convinced to the contrary only by looking at the clock, her watch, his watch, and the bedroom clock. (The lecture had been in his home.)

The narration of this event and of his wife's incredulity about what she had done that evening, and her amazement at her unawareness of having demonstrated hypnotic behavior to a group of professors toward whom she felt a feeling of awe, resulted in the conclusion that simulation of hypnotic behavior could not reliably be used as an objective test of hypnotic phenomena.

A member of the seminar group had had a similar but intentionally planned experience with similar results; whether this has been published is not known to this author, although it was privately related to him the next day and later to the seminar group. As in the first instance, despite the concerted, deliberate planning, the resulting trance had not been expected.

Another type of occurrence at about the same time as the above instances happened to the author. He was invited to demonstrate hypnosis to a group of undergraduates in psychology and to utilize as subjects volunteers from the group. Three members of the group, as a prank at the expense of the author and the others of the audience, arranged with a student who was studying drama and who had seen hypnotic demonstrations to perpetrate a fraud upon the author. The drama student was asked by the three students to be the first volunteer and to "fake going into hypnosis." During the demonstration one of them would ask the author if a hypnotic subject could respond in the trance state to a suggestion that he would sneeze. At this point the volunteer subject was to disclose to the audience how he had "faked the whole demonstration" and thus embarrass the author. This entire plan was based on the fact that the drama student could sneeze voluntarily and often developed episodes of sneezing to avoid answering questions in his classes.

Quite innocently the author instructed the subject to sneeze whenever the

author tapped on the table with a pencil and to sneeze once, twice, or more times in accord to the number of taps. The subject responded as the author suggested. One of the three students called the subject by name and asked him to "do as planned." The subject made no response to that student, who angrily came up and demanded that the subject "make good for the five dollars paid you." The subject was obviously in a trance and made no response, since no rapport existed with that student.

In the resulting confusion the student embarrassedly disclosed the secret arrangement with the subject. With this clarification, the subject was awakened with a suggested amnesia for all trance events. It became immediately apparent that the subject was spontaneously reoriented to the moment when he had sat down in front of the audience as a volunteer subject. He was asked if he really wanted to be hypnotized or if he wanted to "fake being hypnotized." With marked discomfort he asked the reason for "such an odd question." Reply was made that he was being paid five dollars to "fake hypnosis" and to disclose this fact when a request was made to him that he sneeze. After a resentful look at his fellow conspirators he ruefully remarked that apparently the plan was to embarrass him and not the author, and he started to return to his seat in the audience. Questioning of him by the audience soon disclosed his amnesia for trance events and the lapse of time.

He was re-hypnotized and asked to recall, in slow chronological order, when aroused, the events of the first trance, the events of the state of conscious awareness following it, and then the experience and suggestions of this second trance, and to report upon them verbally to the audience. His report was most instructive both to the author and the audience.

### ***SCOPE OF INVESTIGATION AND EXPERIMENTATION; NATURE, EXTENT, AND ILLUSTRATIVE MATERIAL***

Various experiments were conducted with naive subjects, and the conclusion was repeatedly confirmed that neither the subjects nor the experimenter could be at all objective in such experiments. The attempts to investigate the nature and character of hypnotic phenomena would depend upon limiting such investigation to situations where undirected, unsuggested, completely spontaneous hypnotic behavior was manifested and where the unhypnotized subjects could respond with equally spontaneous waking behavior without any effort to alter or to falsify such spontaneous waking behavior. This discussion led the author into numerous experimental efforts to discover a possible situation in which reliable experimentation could be done. During the course of this experimentation it was realized that a "light trance" and a "medium trance" could not be employed for such experimentation, since both such states offer a possibility for some degree of ordinary waking behavior. Thereupon it was realized that only somnambulistic subjects could be employed to manifest their own natural, spontaneous, completely undirected (so far as the experimenter was concerned) behavior. Such spontaneous somnambulistic behavior could be manifested in situations where, unwittingly and unknowingly, hypnotic subjects would demonstrate their somnambulistic state and where unhypnotized subjects would make their own normal, natural, spontaneous behavior

manifestations in accord with their own waking understandings. The experimenter would become merely an objective observer of the behavior of the somnambulistic hypnotic subjects, and the behavior manifested would be in relation to a reality situation to which both types of subjects could react without being directed or influenced in their behavior. In other words merely a simple, ordinary problem would have to be presented for an ordinary, simple solution to both types of subjects.

The various findings reported above led to the early realization that in the development of the proposed experiment it should not be constructed to be used as a method of defining the existence of a state of hypnosis, nor of detecting a simulation of the hypnotic state. It would have to be constructed solely to determine if there were differences in the apprehension of realities by subjects in the ordinary state of conscious awareness, and by subjects in the somnambulistic hypnotic state.

As a measure of recognizing somnambulistic hypnotic behavior there was a systematic appraisal by the group of the various manifestations that were likely to occur in the behavior of such subjects, but which could vary from subject to subject. However, they would be manifestly apparent to the experienced observer, but in varying degrees (from subject to subject). These criteria were:

Pupillary dilation or altered eyeball behavior.

Changes in muscle tone and altered patterns of body movements with a peculiar economy of movement.

Literalness of response to verbal stimuli; a capacity to wait without effort and without seeming to experience the passage of time when a long pause was interjected into the middle of a situation.

An absence of ordinary startle responses.

An absence of physical adjustments to stimuli, such as the lack of a turning of the head toward the speaker, inattentiveness to distracting visual stimuli, and unresponsiveness to many physical stimuli.

An apparent inability to perceive external stimuli included in the immediate situation, and the frequent spontaneous ability to misperceive the surrounding realities as the realities experienced or imagined possible in the past of the individual subject, often with peculiar restrictions or alterations in the actual perception of reality.

These criteria, it was agreed by the seminar group, were reasonably descriptive of the somnambulistic hypnotic trance; but it was also agreed that each subject could vary in an individual manner in meeting them. This has been the author's experience since his participation in that seminar of 1923-24.

It was finally decided, after much study and after recalling the fruit-eating episodes in a study previously reported (Erickson, 1964b), to attempt to differentiate between waking

and hypnotic states of awareness by some type of behavior that could occur naturally and easily in either state of awareness. Such behavior, it was reasoned, could in no way be dependent upon the state of awareness, should in no way be hindered in its performance as such by the state of the subject's awareness, must be as easily elicited in the trance state as in the waking state, and yet in some way must be separately definitive of the nature, limits, attributes, or other not yet realized qualities of the two states of awareness.

When the problem was first considered, the question of sensory changes, ideo sensory activity, memory changes, and transcendence of usual neurophysiological behavior and responses were all considered. However, the question of the experimental subjects knowing what was wanted at some level of awareness and responding complaisantly always came to mind and led to the discarding of such naive and profoundly unscientific approaches. The question was one in which the answer would have to be obtained without the knowledge of the subjects or any kind of intentional or knowing participation at any level of understanding. *In other words the differentiation of the waking and hypnotic states of awareness would have to derive from some quality or attribute of the performance inherent in the task but in no way specified to the subjects but which would be dependent wholly upon the experimental subjects' kind of awareness, whether waking or hypnotic.* Thus there could then be no invalidation of the experimental results so attendant upon the deliberate effort to have subjects offer counterfeit behavior as a means of differentiation, as so often has been done. (See numerous studies in the literature on "simulation behavior.")

The nature of such an experimentation was conceived as requiring no recognizable experimental procedure, as requiring an indefinite period of time with a multitude of subjects, a large variety of experimental situations, and an actual experimental procedure that would have to be, in most if not all instances, an incidental part of another formal or perhaps informal situation or experimental study. It was also recognized that it would also be essential to formulate some kind of a controlled experimental procedure in which the task could be done with a minimal, if any, risk involved of the possibility of the experimental subjects becoming aware of the experimentation. Extensive thought was given to this contingency as well as to others that were considered as possibly arising. Almost from the beginning it was recognized that the task would require long-continued study, experimentation, and extensive experience, probably extending over several years, before any attempt at a definitive study could be made, and then only out of the continued acquisition of a knowledge of hypnosis.

Throughout medical school, internship, and the first years of psychiatric practice the intriguing question of how to differentiate experimentally between hypnotic and waking states of awareness was kept in mind. Clinically the author felt certain that he experienced no great difficulty in differentiating between the two states of awareness. But how to establish such a differentiation objectively with no awareness of what was being done by the experimental subjects was a most difficult question to answer. Innumerable projects were begun, only to be abandoned as unsuitable for definitive results.

Serving to affect the eventual experiment were a multitude of separate experiences in which subjects in somnambulistic states have interjected into the intended hypnotic situation items alien to the operator, but belonging either to their experiential past or their comprehension and understandings of possible occurrences.

Repeatedly, since this experiment was first considered, the author has encountered in teaching situations before university students, medical, nursing, social service, dental, and psychological groups a certain significant phenomenon upon which this experimental study was based, even though its full significance was not appreciated in formulating the experiment at that time, becoming clear only as the experimental studies progressed in the first dozen efforts. This finding will be summarized first, and then a detailed account of one such instance will be given.

In demonstrating hypnosis before professional groups, naive subjects have often been employed, the purpose being to illustrate the technique of hypnotic induction and to demonstrate various hypnotic phenomena of the deep trance. In using these naive subjects to demonstrate negative visual hallucinations, the author has asked such subjects, gesturing toward the audience, "What do you see there?" In reply he would be given the answer, "Your hand." "I mean back of my hand." "Oh, part of the ring on your finger is back of your hand." "I mean further back." "Nothing." Suggestion would be offered to them that they see the speaker's platform on which they sat, and they would be asked what they saw beyond that. In several hundred such instances the answer was that they saw nothing, that they "stopped seeing" where the platform ended. When instructed to see the audience, they would do so, and simple inquiry about what was behind the audience would elicit the reply of "nothing." When they were questioned why they saw nothing beyond the audience, they would explain that they had looked at the audience but had "stopped seeing farther." They could then be asked to see the persons standing in back of the audience. This they would do, but in several hundred cases they "stopped seeing" before they could see the back wall of the auditorium behind the persons standing behind the audience, as illustrated by the tape recording cited above—a manifestation which was expected by the author because of his understandings. Just what this "stoppage" of the linear extent of the vision means is difficult to comprehend. Yet naive subjects, ranging in education from the eighth grade to doctoral degrees in medicine, dentistry, or psychology, have given the remarkable reply signifying that there had occurred for them, from a trance induction resulting in somnabulism with the eyes open, definite linear limitations of vision.

Following is an almost verbatim account of one such completely unexpected occurrence. (The omitted material pertains to answered and unanswered inquiries and comments from the audience.)

At a lecture-demonstration before the staff of a psychiatric hospital a social service worker with an MSW degree in psychiatric social work volunteered as a demonstration subject. She had never seen hypnosis demonstrated, nor had she ever previously thought of volunteering as a subject. A simple direct eye fixation and a lifting of her right hand in

the manner described previously (Erickson, 1964c) served to induce a somnambulistic trance within one-half minute.

Immediately the following series of questions was asked and answered:

Do you think you can be hypnotized?

I do not know. I want to find out.

Will you know when you are hypnotized?

I really don't know.

Are you hypnotized right now?

Oh no, I just volunteered.

Why?

I don't know, I just want to know what it is like.

As you can see, you are sitting at my immediate left and facing me. Is there someone sitting to my right? [A nurse was sitting at my immediate right, facing toward me and toward her.]

I don't know.

Why?

I haven't looked that far.

Can you see my right arm? [Resting it across the arm of the chair in which the nurse was sitting]

Yes.

Do you see anything else?

No.

Why not?

I haven't looked any farther.

Is there anything to see if you look farther?

I don't know, I haven't looked.

Just review these questions I have been asking you and the answers you have given me and tell me what you think of the questions and the answers.

[After a pause] I know I'm not in a trance because you didn't put me in one. You ask odd questions, and my answers are just as odd. I really don't understand.

Why is your hand lifted up in the air?

Why, [noticing it] what is it doing there? It's just staying there.

Did you put it there?

I'm not keeping it there, it's just staying there.

Does that reply make sense to you?

[Laughingly] No, it doesn't. This whole conversation doesn't make sense, and I don't know what's happened to my hand and arm.

Oh, it's right there, isn't it?

Yes, but why?

Are you in a trance?

No. Are you going to put me in one?

Before I answer that question, may I ask you a few questions and secure your answers?

Yes.

What is your name? Your first name?

Lucy.

Where are you?

Here.

Where is "here"?

Right to your left and a little in front of you.

But in general, where are you?

Here in a chair.

Who owns the chair?

[She looked at the chair curiously] I don't know.

Where is the chair besides "here"?

Well, I'm on the chair and the chair is on the floor.

What floor is it?

I don't know.

Don't you recognize it?

No, I just see the floor the chair is on.

You say you are not hypnotized, and you give answers like the one you just offered, and your arm remains in the air—what does this all mean?

Well, I'm not hypnotized.

Well, in the ordinary, waking, non-hypnotized state a person asked, Where are you? replies with an informative answer. Hence I will ask you, Where are you?

I-I-I-I don't know.

Can you look around, and what do you see?

I see you, the chair I'm sitting in, and the floor the chair is on.

Can you see anything else?

No, that's as far as I can see. Do you want me to see farther?

Do you see farther?

No, I just see so far.

Would you say that your behavior is that of someone who is not hypnotized?

Well, it's very odd behavior when I think about it, but I know you didn't hypnotize me.

What about your seeing just "so far?"

Well, I look at you and my vision just stops. I can't explain it. It has never stopped before.

What do you see beside me or behind me, and what do you think of your answer?

I don't see anything beside you or behind you because I don't see that far, and I think that is a very queer answer. I don't understand it.

Is there anything else you don't understand?

Yes.

Much?

Yes.

Start telling me the things that are not understood.

Well, my hand. Why does it stay there without moving? I know it is my hand, but I don't understand why it doesn't seem like my hand. It's different in some way.

What else?

Well, there's you. I know you are a doctor and I know your last name, but I don't know why you are talking to me or what we are doing or even where we are.

What do you mean?

Well, usually when two people are together they have to be somewhere, and you are sitting there and I have to try hard to see the chair you are in. And I'm here in a chair and that is as far as I can see and there isn't anything around—nothing at all just like in science fiction, just you and me and two chairs and a bit of wooden floor—oh, there is some floor under your chair too just the two of us and empty space. There is something awfully different here that I don't understand. I feel comfortable. I'm not alarmed or worried. When I look at you, I see you, but my vision stops. It's very peculiar. Yet I have a comfortable feeling that you can explain everything.

Are you hypnotized?

I really don't know what that word means. It has something to do with one's mental state, and as I think about the way my hand behaves, the way my vision

just stops, this just being alone with you in empty space with nothing around and still feeling comfortable, I would have to deduce that I am hypnotized. Am I?

You are, and how do you feel about it?

Well, it's a nice feeling but a strange feeling. I just can't understand my eyes or my hand. My eyes see you, but I don't look any farther, and that is my hand, but I don't feel it to be my hand.

Would you like to know the whole set of attendant circumstances accounting for you and me being here?

Well, yes, very much.

All right, remain in the trance, be responsive and aware of the immediate past and the current present.

Oh, my goodness! The whole staff is here—now I remember. But I'm in a trance, but how did you hypnotize me? I still can't move my hand. You did something to my hand and everything changed. Everything except you vanished. How is that possible? Somebody must have talked, but I didn't hear any sound except your voice. Did anybody talk, because they must have stayed right here. They couldn't really vanish, but they did, even the walls, everything. Please, could I do that again?

Yes, if you watch the hand that is up slowly lower and the other hand slowly lift up to a comparable height, it will happen again.

She watched her hands, and when the first was lowered and the other was fully lifted, she looked up in a puzzled fashion, apparently awaiting some remark.

Accordingly she was asked:

Do you think you can be hypnotized?

I don't know. I want to find out.

Thereupon various aspects of the previous procedure was repeated with the same results.

Privately the psychiatrist in charge of the course of lectures was told that the continuous tape recording that had been made should be released for those in attendance to discuss at their leisure but not in his presence nor in that of the author. This was done, and the social worker was completely astonished when she heard her voice responding to the author's inquiries. She was greatly amazed at her replies and could not understand their meanings. Neither did she have any conscious recollection of the experience. She was also astonished to discover from the tape recording that she had no full memory at the close of that experience of having been hypnotized. She was also amazed that in the state of conscious awareness she still had no conscious memories of the experience.

No recording was made of these discussions, but the author was assured that she had been subjected to many probing questions and that there had been much theorizing. On the morning of the day preceding the conclusion of the course, she was asked by the author

how she felt about the experience of hearing the tape recording and thereby learning that she had been hypnotized. In summary her statement was:

The most that I can say is that I apparently did not place any meaning upon stimuli other than those coming from you. I simply do not know how one can stop seeing or hearing, and it amazes me that I do not yet know of my own experience: that I was hypnotized and talked to you in the trance state. Neither do I remember having recalled, in the trance state, that I had been hypnotized and that I was talking to you in the trance state. Apparently I excluded any meaningful perceptual experiences other than those disclosed on the tape recording, which disclosed also that not only were you and I talking but others had talked and questions were asked. But I still have no memory of the experience.

I asked if she were aware that a tape recording was being made of the present conversation. She stated that everybody was aware that all sessions were being tape-recorded. She was asked if she would like to be hypnotized, and she asserted that she most certainly would and immediately came up and sat down in a chair beside the author. As the author asked her if she were sitting comfortably, he gently touched her wrist and "lifted" her hand as he had done several days previously. It was apparent to everybody that she had again developed a somnambulistic trance instantly. The same questions were put to her as reported above, and the same replies were given. Finally it was suggested that she remain in the trance state but become aware that she was in a trance state. She was again questioned in the same fashion that she had been on that previous day. Then the suggestion was offered that she recall in full the previous experience. She was greatly amazed to discover that she was repeating her behavior of several days previously. She compared it with her present behavior of going into a trance state. She did not know how she went into the trance, and she still could give no satisfactory explanation of why or how she "looked just so far and no farther." The suggestion was offered that she might be interested to recall her conscious experiences while listening to the tape recording and to comment upon what she experienced while listening. She stated that at first she found it difficult to believe that it was her voice on the tape recorder. She could not, in that separate conscious experience, understand the course of events. She stated that she had struggled hard to effect a conscious recovery of the entire experience, but had failed. She agreed that in some way unknown to her she "simply arrested the reception or perception of the stimuli that she undoubtedly had been receiving," and had limited her perceptual awareness and memories completely to the immediate situation of herself and the author. She was then gently awakened with a total amnesia, which included coming up to the front of the audience and returning to her seat. Later that day this new recording was played back. She was most astonished by it and began comparing it aloud with her conscious memories of the previous recording that she had discussed with her associates. She was again amazed to realize that she had no conscious memory of either experience. Again she offered the uninformative explanation comparing it aloud with her conscious memories of the previous recording that she had discussed with her associates. She was again amazed to realize that she had no conscious memory of either experience. Again she offered the information that she had in some peculiar way made no responses to the auditory stimuli recorded on the tape that had come from the audience and that she still could not understand how she could limit her reception and perception of visual stimuli

by "not looking any farther, and being unaware of the sounds from the audience." Early that evening she and her associates listened to both tape recordings, and she found that she still lacked any conscious memories and understandings of the two experiences.

The next morning, at the beginning of the day's work, she was asked if she would like to volunteer to be a hypnotic subject. She replied, "I certainly would like to, but would it be possible for me to know that I am being hypnotized?" She was told that this was possible. As she sat expectantly in the chair, she became aware slowly of changes occurring within her. Her first statement was, "I still see everybody in the audience, but the walls have disappeared and everything is getting quieter. The audience is getting smaller. I don't know how I am doing this, but very slowly everything except you and me and your voice and my voice is leaving. Now here we are sitting on these chairs, with these chairs on the floor . . . we're all alone. In some way I know that this really isn't so, but this is the way I am experiencing everything. There is my hand up in the air. I know it's my hand, but I am not holding it there; I'm just letting it be there. It is something like being in a very real dream—swimming, socializing, driving a car, skating, skiing, and enjoying it all—with no knowledge about being sound asleep in bed. That is the best explanation I can give."

She was told that after awakening she could recall all three experiences in order that she could listen to and recognize *as her own experiences* the events of the first two tape recordings and then of the present tape recording, which would be played back to her; she would remember the present experience fully and be interested in and anticipating the next remarks that she would hear as the tape recording was played back.

She was awakened with full conscious memories of all three experiences and she declared her eager interest in listening to the present tape recording. She later reported how, upon listening to the first two tape recordings, each of them had suddenly been sensed as her own experience, as was the third experience.

This is but one of many such tape-recorded experiments. It was selected because the subject was so highly intelligent, sophisticated psychiatrically, and subjected to so much pressure by colleagues to break down her amnesias.

## **DEFINITION AND EXPLANATION OF PROBLEM TO BE INVESTIGATED**

It was eventually realized that the fundamental problem centered around the intriguing question of the significances of *the reality situation in and out of the hypnotic trance: that is, Do hypnotized people apprehend or perceive or sense their surrounding realities in the same fashion as do people not in the trance state?* Hull was emphatic in his statement, even emotionally so, that a somnambulistic hypnotic subject who was told to look, for example, at Person A (actually present, not a hallucination), saw Person A in exactly the same way as he did in the ordinary state of awareness. The author, for reasons he had not clearly formulated at that time but which he related to the hypnotized subject's different attitudinal behaviors in the trance state, disagreed with Hull, but was puzzled by

the question of how one's waking apprehension of a person might differ from one's trance state apprehension of the same person. The author regarded the trance state as colored by what is called "rapport," and as marked by such rigidities of behavior as those deriving from catalepsy and other alterations of physical behavior and by the reality detachment, dissociation, and ideomotor and ideo sensory manifestations that appear to be important, but which are not always consistently present, characteristics of the somnambulistic state. Also characteristic of the trance state are the subjects' apparent unawareness of items of reality and stimuli which are not pertinent to their trance or to the potentiation of other mental frames of reference. Perhaps the best analogies can be found in the persistence of visual illusions in the waking state, as for example the well-known persistent recognition of a vase and the non-discovery of the two facial profiles that form the outline of the vase. Another example employed for psychotherapeutic purposes for many years by the author has been to write plainly the number 710 on a piece of paper and to ask a patient to "read what I have put on the paper in all possible ways." There would be a persistence of the numerical frame of reference by *reading* the number by various permutations of the digits even when the paper was turned upside down. Sometimes the rigidity of the numerical frame of reference could not be altered by even the measure of printing the word S-O-I-L above, adding the letter *B* as a prefix to the "upside down number" of O-I-L, and then printing beneath it the word R-O-I-L. The author has encountered such rigidity of frames of reference that while the upper and lower words were recognized properly, the person, normally well-adjusted, would continue to read the middle word as "B, zero, one, and an upside-down seven."

Giving consideration to all the points just enumerated, the author considered it probable (Erickson, 1938) that the hypnotic subjects sensed reality objects and other stimuli which are out of context with the trance state in some different fashion than would be the case in the waking state; and (Erickson, 1943a) that this same phenomenon would also be true for all types of stimuli within the framework of the trance itself because of the ease with which hypnotic subjects can apparently vary their perceptions of objects or stimuli by substitution, at the hallucinatory level, of memory images for actualities. This process of substituting corresponding memory images for sensory stimuli in the trance state is both a possible and a frequent manifestation of hypnosis, but it certainly is not a part of the ordinary waking apprehension of reality, nor even an ordinary variation of it. It appears, however, to be remarkably characteristic that somnambulistic subjects who can, for example, readily see a reality object, can then subsequently hallucinate it vividly with appropriate physiological consequences (Erickson, 1943a). Hull strongly contended that all sensory stimuli continued to be constant in effect or conditional upon the degree of attention, but that a blocking occurred in hypnosis which affected only the communication of experience on the part of the subject to the experimenter but did not alter the subject's actual perception of reality experiences. In this same connection the author had done considerable work upon hypnotic deafness and conditioned responses in which an auditory stimulus was involved. The results of this study (Erickson, 1933) had made the author doubtful of the identity of hypnotic with waking realities. Discussion on this matter led to considerable estrangement between Hull and the author, since Hull regarded the author's views as unappreciative disloyalty and willful oversight of Hull's

views. (It should not be forgotten that the author at the time of the original discussions was only a student and that Dr. Hull was a professor.)

In any case, as the outcome of these personal discussions with Dr. Hull, (sometimes acrimonious on the part of both), the author, bearing in mind his attempt to devise separately his own private experimental investigation of what constituted the hypnotic state, was aided in his understandings of scientific experimental procedure by Professor Joseph Jastrow, then head of the psychology department; by Dr. William F. Lorenz, professor of psychiatry; and by Dr. A. Loefenhart, professor of pharmacology and a most enthusiastic experimentalist extremely rigid in his insistence upon completely controlled scientific procedures. Later Dr. William Blackwenn of the psychiatric department and Dr. Hans Rees, professor of neurology, who had used hypnosis extensively in the German Army in World War I, offered much advice, encouragement, and instruction regarding the scientific procedure for this project to the author. These advisors all approved the need of extreme care in formulating concepts of procedural methodology and emphasized the importance of not attempting direct contrasts, but of letting experimental procedures be an incidental part of a larger framework of hypnotic work. They emphatically agreed that any discovery of a difference in behavior between nonhypnotic and hypnotic states, to be valid, would have to be a natural or spontaneous manifestation and not a response to direct intervention or suggestion. They could offer no suggestions of how to solve the problem, but they did discuss at great length the difficulties confronting the author, and their counsel has been kept in mind throughout the years.

The questions which continued to concern the author in this investigation centered around:

1. Do hypnotic subjects in the trance state perceive or apprehend a reality object in the same fashion as in the nonhypnotized state?
2. Do the hypnotized persons in some manner "abstract," "extract," and "remove from context" or "apprehend" in some different fashion reality items in the environment of which those items are a part when they are not a part of the hypnotic situation?
3. Is a specific reality object which is perceived by the hypnotized subjects apprehended, sensed, or understood in some fashion alien to or differing from their ordinary waking experience?
4. How does this perceived or apprehended reality object or the hypnotic subjects' reality environments become altered so that their relationships are lost or altered in some way, as is so often indicated by hypnotic subjects whose behavioral responses suggest most strongly such changes?
5. What is there about apprehended reality experience in hypnosis that allows or permits ready substitution of memory images of another kind or counterparts for environmental reality objects?
6. Is the actual environmental reality the same for a person in a hypnotic trance as it is in the waking state?

7. Is there some manner or kind of exclusion or alteration of reality actualities in the hypnotic state which constitutes a part of the state of being in hypnosis?

There were no expectations of securing answers to all of these questions nor even of securing a definitive answer to any one of them. These questions also led to the realization of the importance of an experiential situation wherein the subject could react in accord only with himself *uninfluenced by the responsive behavior of other experimental subjects, and without becoming complaisant in his responses*. Only thus would there be an actual opportunity to discover possible differences between the hypnotic state of awareness and that of waking awareness rather than learned or attempted similarities.

To illustrate roughly the considerations upon which these questions were based the following example may be given: Persons A and B in the ordinary state of awareness are sitting at a desk discussing a complex mathematical formula. However intent they may be on the significance of the mathematical formula, there is a full actual, and available, but secondary continuous knowledge and awareness of the desk at which they sit, the overhead light, the telephone on the desk, the four walls of the room, the day of the week, the approximate time of day, the impending conclusion of the discussion, knowledge of X's opinions, and so on. People in the non-trance state do not lose complete general awareness of the immediate reality surroundings nor of the general context of thinking and speaking; and should they do so in partial fashion, they "come to" with a start, explaining (usually without a request to do so), "For a moment or two there I absentmindedly forgot everything except what I was thinking," reorienting themselves as they so speak to their general environment. But it is to the actual reality environment that they orient themselves.

This is not so with deeply hypnotized somnambulistic subjects, even though it may be their first experience with hypnosis, and eyes may have been continuously wide open, and they may have been hypnotized by some ritualistic verbalized technique of suggestions, or by any other method that had been written out in full or recorded and that could then be examined for hidden or implied meanings of the words employed. Yet, without suggestions of any sort, as subjects sit quietly and passively in the chair in a somnambulistic state, they can be asked simply, "What are you looking at?" to which they can reply in terms of their own past experience, "The mountains" (trees, lake, dog, boat, etc.). Yet mountains have not been mentioned, there are no pictures suggestive of mountains on the walls, but the subjects not only readily describe them but disclose that they have in some manner oriented themselves to the environs of their hunting shack and that the laboratory is nonexistent. All sensory intake apparently has lost its value except the awareness of the presence of the experimenter as a part of the hypnotic situation; and the reality stimuli have been replaced in the subjects' experiential behavioral responses by memory images unrelated to the actual reality situation.

Similarly the non-trance state of concentration can be contrasted with a deep somnambulistic trance suddenly induced in willing subjects by measures not consciously recognizable by them. For example a woman intensely concentrating on her own

understandings aggressively mounted the speaker's platform and interrupted the author's lecture by assertively declaring, "I dare you to put me into a trance because there is no such thing as hypnosis." The author replied with complete simplicity, "Oh, I wouldn't dare. *That's what you will have to do all by yourself,*" and turned back to the audience and continued his lecture, thereby rendering the woman completely vulnerable psychologically by virtue of the fact that his reply had left her with no target for her aggression except herself. As a result, in a few moments the woman developed a deep, recognizable, somnambulistic trance as was apparent to the various observant students of hypnosis present; it was apparent immediately that only the lecturer was aware of the audience, the podium, the pitcher of water on the table, sounds from the audience, etc. The woman, however, apparently did not perceive her surroundings except for the mere presence of the lecturer, nor did she seem to hear what the author was saying to the audience. Neither did she seem to be aware of the passage of time. As the author continued his lecture, she merely stood immobile, eyes unblinking, totally unresponsive until the author turned to her and asked her if she were willing to demonstrate hypnotic phenomena. She agreed readily and proved to be an excellent demonstration subject. When aroused from the trance, she expressed bewilderment at her presence on the speaker's platform, but added, "It doesn't matter, I just have some kind of an inner feeling; that I have learned a great deal and it is very satisfying." She was subsequently informed of the sequence of events by friends present at that lecture. She expressed simple unconcerned disbelief in their accounts, neither arguing nor protesting, not even asking for any further information. She simply dismissed their jointly proffered information by stating that she would like to be hypnotized some time.

During the demonstration of hypnotic phenomena for that audience, she appeared oblivious of everything until the author addressed her directly. He could then direct her attention to any reality item in that situation, and she could identify it as an isolated reality object, without associated reality significance, either temporal or physical. It would be identified at request in terms of the reality situation, if this were indicated, but spontaneously only in her own special hypnotic frame of reference, whatever that might have been. For example, she could see an indicated chair but could as easily identify it as a chair in her own home as she could see it as a lecture-room chair. What had become of the audience in her apprehension of reality was then and still is to this author a bewildering question. What had become of all the stimuli of which the author was so aware?

Numerous other comparable instances of the sudden development, neither expected nor intended, of profound hypnotic somnambulistic trance states have been observed since Miss O's hypnotic trance behavior in 1923 and the experience just recounted, which occurred in 1930. These events bewildered the author greatly, since they led him to the conclusion that their development signified inner processes of great portent to the subject. This conclusion led the author to the understanding that when he induced a trance, his purposes not being of great inner significance to the subject, it would require prolonged and intensive labor on the author's part to give the subject an awareness that the intended work possessed intrinsic value.

One particular instance seemed to confirm this understanding. A psychologist working for a doctoral degree had been laboriously trained to be a "good" somnambulistic subject. In 1932, in an informal group discussion about the nature of hypnosis interspersed with casual unrelated remarks, this subject had commented upon the coldness and disagreeableness of the weather and stated that she wished it were spring and that she were at home. The author remarked "If wishes were horses, beggars might ride." Almost instantly the group became aware that she had developed a profound trance and had assumed the position of resting her chin on her hands and her elbows on her knees.

It was immediately discovered that she was out of rapport with everybody and that she seemed to be communing with her own thoughts and deeply engrossed in them. Shortly she began to slap at various parts of her body, suggestive of the author's memories of his own spring experiences. Shortly she murmured to herself, "Damm mosquitoes—have to go inside," but there occurred only a lifting of her head and shoulders and a different appearance of her eyes, and the direction of her gaze seemed altered. Since the author was in direct range of her vision, he asked, "Mosquitoes bad?" "Uh huh! You waiting for my father? He's always a little late." She was answered, "What interests you at college?" She replied, "Hypnosis. . ." paused, looked puzzled, and stated "the thought of being at home on the back porch, sitting in the moonlight thinking, and the mosquitoes being so bad that I had to go in the house, and I saw one of my father's clients waiting for him—all that passed through my mind so vividly that I can still feel the mosquito bites."

Highly interested questioning by the group disclosed that she had no awareness of the entire experience as such, the passage of time, the various efforts to make contact with her until the author's fortuitous remark fitted into her own mental frame of reference she was experiencing.

The above examples of totally unexpected, unplanned, and not understood experiences with hypnosis have been encountered many times in the author's career, and the cumulative effect has been to make the author ever-increasingly aware that the hypnotic state is an experience that belongs to the subject, derives from the subject's own accumulated learnings and memories, not necessarily consciously recognized but possible of manifestation in a special state of non-waking awareness. Hence the hypnotic trance belongs only to the subject—the operator can do no more than learn how to proffer stimuli and suggestions that evoke responsive behavior based upon the subject's own experiential past.

This sort of experience, encountered so repeatedly from the very beginning of the author's hypnotic experimentation, led to much speculative thinking. What could be meant or what was implied when a deeply hypnotized somnambulistic subject with a Ph.D. degree in psychology, his eyes open, would reply simply, "Here," when asked "Where are you?" When asked, "What do you mean?" he would reply again simply, "Here, just here." "Elaborate further." "Here with you." "Where am I?" "Right in front of me." "Where is that?" "Here." If one then flicked his eyes at the subject's chair and again asked, "Where are you?" the answer might be, "Here in the chair." One could continue such futile questioning concerning the chair until a flick of the eyes, a tone of

voice, or a more specific question indicated the expectation of more elaborate and comprehensive replies, but it would be truly necessary to do something to alter the somnambulistic state of reality. Only by specific instruction by words, tone of voice, manner, or behavior could the somnambulistic subject be led to include nonhypnotic realities, and this could be done only by recognizable intent on the part of the operator, as was so well illustrated by the tape recording given in detail in relationship to the psychiatric social worker.

Numerous such interrogations of highly educated subjects would elicit no comprehensive information from them if leading or suggestive questions were not asked. Yet the same questions in the waking state before or in the waking state after hypnosis would yield markedly different replies, including perhaps annoyance with the questioner and expostulatory responses such as, "Why tell you? You are here and know as well as I do. Your questions are senseless." It is true that somnambulistic subjects can include the operator in their hallucinated reality and they may even suggest that the operator take a seat on the adjacent stump there beside their hunting shack. Both the nonhypnotic and the hypnotic subjects perceive the experimenter in their environment, but in the case of the nonhypnotic subjects it is a reality environment common to both and verifiable by others. With the somnambulistic subjects they may "insert" the experience of being in a trance into an environment compounded of memory images into which stimuli from surrounding reality are excluded or, if admitted, may be, but not necessarily, subject to transformation. Thus a knock on the laboratory door could be responded to by the subjects as footsteps on the pathway. (All of the illustrative examples cited and to be cited will be from actual instances.) The meaningfulness of numerous such experiences intrigued the author greatly but left Hull uninterested, since he was interested in laboratory procedures for the study of planned and deliberately elicited responses, and he did not have an interest in field observation and the study of spontaneous behavioral manifestations.

However, this type of behavior has continued to be one of challenging interest to the author in all of his experimental and clinical work to the present day, since this paper does not constitute a final explication of what and how and why hypnotic realities are so different from waking state realities.

In general as time passed it was recognized that any satisfactory experimental procedure formulated would have to involve the presentation of an item of reality to as many subjects as possible in both waking and somnambulistic trance states, as well as to a large number of subjects in the waking state who might or might not become hypnotic subjects; and that this item of reality would have to be perceptible to both somnambulistic and waking subjects, and the experimental results entirely dependent upon the understandings belonging to the subjects in special state of awareness, whether waking or somnambulistic.

This item of reality was to be dealt with in relation to the surrounding reality environment as experienced by each subject in his own manner, but this fact was not to be so specified. It was to be only inherent in the task proposed. The experimental procedure

derived from understandings achieved from repeated hypnotic experiences observed over a period of 10 years, and which were apprehensible only as signifying a satisfactory somnambulistic trance state. A chance realization led to the recognition of the experimental potentialities which those observed manifestations offered for the differentiation of the realities of the hypnotic state and of those of the state of ordinary awareness.

## **FORMULATION OF EXPERIMENT**

The experiment as finally formulated centered simply around the task of relating an item of reality to the surrounding reality of the experimental situation. No explicit instructions regarding the exact performance were offered. Instead, all subjects, hypnotic and nonhypnotic, were confronted with a simple task in which there was an implicit need to meet the reality of the experimental situation as it was apprehended by them at the time of execution of the task. The actual performance of the hypnotic subjects was not expectable to the experimenter nor even comprehensible for any of the experimenter's assistants. The performance of the subjects not in a state of hypnosis was fully expectable, and an entirely similar performance was at first fully expected of the hypnotic subjects. In no instance did the experimenter's expectations influence the hypnotic subjects, nor were the expectations of the experimenters influential for the nonhypnotic subjects. The nature and simplicity of the task performance itself excluded the experimenters as factors having an influence upon the results.

All of the hypnotic training for the subjects employed for this study was entirely in connection with projects completely unrelated to this study. The other projects served only to disclose incidentally what subjects could spontaneously develop somnambulism or who could learn to develop the somnambulistic state.

In this study there was no difference in the results obtained from subjects who developed a somnambulistic state during the first experience of being hypnotized, those who developed the somnambulistic state spontaneously while observing hypnosis in other subjects without expectation of becoming hypnotized by their own intense interest in observing hypnosis, and those subjects who were repeatedly hypnotized with the purpose of being trained to learn to develop the hypnotic state.

Nor did results differ for this study obtained from somnambulistic subjects who were employed to perform the experiment central to this report by this author's assistants, who in turn were selected sometimes because of their inexperience with hypnosis, and did not know that some subjects with whom they were dealing were in a somnambulistic state.

As a further control of the experimental study the same subjects were tested by differently oriented assistants of the author to make certain that the various types of procedure were not influenced by the experimenters' knowledge or lack of knowledge of the experimental study or the psychological state of the subjects. These control study findings were not included as additional results in this experiment. Their purpose was to

validate the similarity and common identity of the experimental results obtained from the same experiment despite changes and variations of procedure, personnel, and psychological states and orientations presumed not to be relevant to the experimental, and actually discovered not to be pertinent. The only significant or meaningful negative results are included in this report, and they were very few in number.

In all, the control studies were made on more than 260 subjects, many of whom were used repeatedly not only as a control measure of the experiment itself, but also as a control measure of the differently oriented experimenters employed by the author to assist him in conducting the experiment.

To perform the experiment successfully it was decided that not only should the author act as experimenter, but also that other persons should conduct similar experimentation as assistants of the author. Some of these assistants had knowledge of hypnosis and some were without knowledge of hypnosis, some with and some without knowledge that an experiment as such was being conducted. Additionally the actual task was to be varied in certain specific details, although its meaningful significances would remain the same. The experiment was to be done on nonhypnotic subjects, on waking subjects with a history of previous hypnotic experience, on subjects in the somnambulistic trance, and on waking subjects who had never previously been hypnotized but who, it was hoped, could be trained, months or even a year or two later, to be hypnotic subjects for further exploration of the same problem. These subjects were all to be used at varying intervals and by various experimenters including the author, his colleagues, and even by friends of colleagues who did not know the author nor the purposes to be served.

A crucial instruction for all experimenters was that experimental results had to be accepted unquestioningly, without hesitation, without manifestation of astonishment or lack of understanding. In brief all experimenters were thoroughly instructed to ask a specific question in a matter-of-fact manner and to accept any answer whatsoever in a similar matter-of-fact manner.

The actual experiment was in itself of a rather simple, ordinary, and casual character, and the procedure was executed in accord with a rigidly simple formula but under a great variety of situational circumstances. The subjects varied greatly in their backgrounds. There were undergraduate and graduate university students, hospital attendants, secretaries, nurses, social service workers, undergraduate and graduate psychology students, medical students, interns, residents, medical staff members, nonprofessional people, and even psychotic patients. However, the results on psychotic patients were not included in the total results of this experiment. The author was simply interested to see if the experiment could also be done with hypnotizable psychotic patients.

Assistants who were employed to conduct the experiment were sometimes aware that the experiment was related to hypnosis, but some thought it was only a psychological experiment under way for some unknown psychology student. Some regarded it not as an experiment but only as a simple earnest inquiry, meaningless, possibly having some obscure significance, or possibly testing their judgment and critical abilities. Others

regarded the task requested as a somewhat nonsensical and purposeless but harmless casual activity of the moment. Some actually were fully informed that it was a test of hypnotic and nonhypnotic realities but without being given precise information beyond that general statement. Even this degree of sophistication did not alter experimental results, even though it was employed on many clinical psychologists with Ph.D. degrees.

Some of the experimenters were fully aware that the subjects were in a profound hypnotic state; some, because of the extensive somnambulistic training of the subjects, did not realize they were dealing with hypnotic subjects (Erickson, 1944); a large number of the subjects had been trained to be somnambulistic in trance states before this experiment was formulated. Care was consistently taken to see that the experimenters did not intrude their understandings into the experimental situation, often by the simple measure of a posthypnotic suggestion to the subjects that when the assigned task was performed, they would develop a profound amnesia for their performance immediately upon the experimenter's saying "Thank you now," as the experimenters were rigidly instructed to do as a part of their task, and the peculiar wording of "Thank you now" made it highly specific.

However, *experimental results were found to be dependent not upon the experimenters' understanding of the task nor upon the subjects' attitude toward or understanding of the test. The results derived solely from the subjects' task performance itself.*

In other words the subjects were asked to perform a task calling for the exercise solely of their own abilities without there being any need for guidance, advice, or instruction from the experimenters. Only the task was the controlling force, and when it was completed, the individual performance was the result. Then it became an established and an unalterable fact because it consisted of a demonstrated expression of a personal evaluation and judgment.

The nonhypnotic subjects differed from the hypnotic subjects in accepting the task variously, ranging in attitude from serious interest to indifference, curiosity, puzzlement, boredom, scorn, questioning, etc. Even so the nature and character of responses were consistent unless resentment developed from having their "time wasted." On the other hand the hypnotic subjects invariably showed a consistent attitude of willing, earnest cooperativeness regardless of previous use as nonhypnotic subjects, or as first-time subjects with any of the task attitudes mentioned above. There appeared to be no spontaneous emotionally-tinged judgment of the task itself such as was shown by the waking subjects.

The experimental results found by the various experimenters, even though some of these assistants were not personally acquainted with the author, were consistently comparable. The simplicity of the experimenters' task and the ease with which they could avoid any share in the subjects' performance was probably the most important factor.

Whenever possible, there were from two to a dozen repetitions at different times of the experiment with many subjects, many times possible in both the waking and trance states.

These repetitions were not counted as additional experiments. However, it was not always possible to secure repetitions of the experiment particularly with the waking subjects, and thus there was a larger number of one-time-only waking subjects, as well as fewer repetitions with the waking subjects. The purpose of the repetitions was to discover possible errors in the procedure.

There was available a much larger supply of waking subjects than of hypnotic subjects. Every effort was made to secure as many waking and trance subjects as possible, but the number of subjects who used it in the trance state was the lesser. Practically all of those who served as trance subjects served also as waking subjects, sometimes first in the waking state, sometimes first in the trance state. Careful effort was made to effect an equal and random distribution of these alternations.

Usually the experiments were done in a university or a hospital setting, occasionally in such a situation as a private group or in a medical or psychological or other lecture setting. The format of the experiment was exceedingly simple and consisted of no more than the simple question of:

*“While we are waiting (thus indicating vaguely some delayed or delaying circumstance appropriate to the situation and definitely implying that the real purposes to be accomplished were something else) where in this room if you had a three-by-four foot picture of ——— (specifying one at a time each of these four items: person actually present, a small snapshot of someone known to the subject, an actual bowl of fruit, and an actual snapshot of a picture of a bowl of fruit), where in this room would you hang it? Consider carefully, and when you have made up your mind; specify exactly.”*

The question was read from a typed card. This card constituted a hint that an experiment was in progress, but the question did not seem to warrant fully that conclusion. Instead it seemed to indicate that the question was seriously intended.

In presenting the question, the reality object to be mentioned was previously always positioned carefully. For example the person present in reality might be sitting in a chair beside a window or might be leaning against the window in some casual position; this person might be squatting in front of a bookcase apparently searching for a book on the bottom shelf, or sitting or standing at a desk in the middle of the room or in front of a blackboard placed diagonally across a corner of the room, or in any other casual position. As for the snapshots, these were held in a slotted wooden base and were simply positioned in a similar casual fashion, such as on top of a bookcase, on the chalk tray at the bottom of the blackboard, on the arm of a chair next to a window, on the top of a desk in the middle of the room, or on a small stand in a corner of the room. The bowl of fruit was similarly placed in various positions. The subject and the experimenter always walked to a position about three feet to the side of the reality object, which would be indicated by a hand gesture.

With both nonhypnotic and hypnotic subjects it became apparent within 10 experiments with each type of subject that a multiple placement of the reality objects with repetitious putting of the question for each object could be done with no alteration of the

meaningfulness of the results. For example the question could be asked in relation to the person standing casually at the window and then, when the person sauntered over to the bookcase, to the desk, or to the blackboard, the question could be asked for each new position. Similarly the snapshots and the bowl of fruit could be openly repositioned and the question asked for each new placement. Or all four reality objects could first be positioned and then the question could be put in succession for each item, and then a repositioning openly effected, and the questioning repeated. This multiple testing on a single occasion in no way altered the responsive behavior, except that if it were done too many times, the waking-state subjects were likely to become impatient or irritated. Repetitions did not distress subjects in the hypnotic state.

Another effect upon the nonhypnotic subjects was that the repetitions tended at first to intrigue their curiosity without changing the character of their replies. It led to their own questioning of their original reply and the offering of a second and sometimes a third answer the same character as the first. As for the hypnotic subjects there was no effect. Each position and inquiry was accepted as a unit complete in itself and unrelated to any other matter or inquiry. This discovery served to make possible many more tests with each hypnotic subject, although such repetitions were not included as additional experiments. The only experimental results discarded were those from nonhypnotic subjects who regarded the questioning as nonsensical and either rejected the question or, annoyed by it, gave purposely nonsensical answers such as, "Oh, hang it up for Santa Claus." However, there were few of these, since the overall tendency was to accept the task as a simple straightforward question with no special meaning.

Well over 2,000 persons participated in this experiment. Of these the opportunity did not arise to induce somnambulistic hypnotic trances in more than one-third, and this was always done in relationship to some other hypnotic work, this other hypnotic work sometimes being nothing more than systematic training for deep hypnosis.

This training for deep hypnosis was the use of traditional ritualistic verbalizations of hypnotic-induction techniques continued for several hours at a time and often repeated for several days to be sure that the subjects were in a "deep hypnotic trance." The criteria for a "deep trance" were: complete posthypnotic amnesia for trance experiences; ready ideomotor activity such as automatic writing; and ideo sensory activity such as visual and auditory hallucinations. Sometimes an effective hypnotic anaesthesia of the hands and arms as tested by sudden sharp electrical shocks was employed. Usually the subjects were asked to recall some long-forgotten memory, and this would be discussed with them post-hypnotically as a test of their posthypnotic amnesia, and an effort would be made to verify the validity of the recollection. Additionally innumerable minor tests of startle responses would be made to determine any deliberate retention of environmental contact instead of "sleeping completely soundly, restfully, as soundly asleep as if you were in a deep profound sleep in the middle of the night when awfully tired." "I want you to sleep as deeply and soundly as a log," was an exceedingly frequent suggestion. (When the author now wishes somnambulistic trances, much briefer, more effortless methods are employed.)

Hypnotic subjects were used for this experimentation only when deep somnambulistic trances were developed. This was done for the following reasons: Those in a light trance found it difficult to maintain a trance state if they opened their eyes and performed a task in relation to external reality; they felt a need to arouse from the trance state in order to do the task; and they expressed the belief that they would "do it wrong" if they tried to stay in the trance. Those in a medium trance were also disinclined to cooperate, and questioning revealed as their reason that the opening of the eyes and the doing something not in relationship to themselves would disturb them and tend to awaken them; they were willing to do things that affected them as persons, but they felt that any manipulation of external objects by them placed an undue burden on them. They would accede unwillingly upon insistence, and were most likely either to lessen the trance state or to arouse from it. For those reasons only fully somnambulistic subjects were employed. This required an extensive amount of work and a long period of time to secure so many such subjects. However, there was an additional reward in that such somnambulistic subjects had been used for other experimental studies and for lecture demonstrations.

It was quite possible to secure negative results easily by overenthusiastic presentation of the instructions, adding unintentional emphases and unrealized misdirectioning of the subjects. The correction of this unintentional securing of results construed as those desired by the experimenter was easily done by utilizing a practice employed by the author very early in his hypnotic investigations. This was his regular practice of having highly intelligent hypnotic subjects who developed spontaneously the somnambulistic state during the first trance induction, act as critics of the author's induction techniques while they were in a somnambulistic state and in rapport with both the author and a new hypnotic subject who was unaware of the trance state of the other person present.

Perhaps the best illustration is the following experience. The author was presenting a lecture-demonstration to a small medical group using as his volunteer subject a member of another group to whom a similar lecture-demonstration was to be given two days later with this first group also in attendance. The subject appeared to develop a somnambulistic state, but the author noted a "new quality" in the hypnotic manifestations and soon realized that the volunteer subject was simulating a trance state. Care was taken not to put too much strain upon the simulator and to give every evidence of accepting his performance as valid. At the close of the meeting the "subject" was asked if he would aid in training some new subjects the next day. He agreed readily. Arrangements were made separately with five experienced somnambulistic subjects who had each on different occasions acted in the somnambulistic state as a critic of the author's techniques. They were told to meet with the author and to develop a somnambulistic state together with full rapport with each other as well as with the author, but they were not to disclose their trance state to a new somnambulistic subject who would arrive shortly. Instead they were to present an appraisal of his aptitude in reacting silently to positive and negative visual and auditory hallucinations, manifesting catalepsy, and doing automatic writing. Each was to appraise these items successively, and then they were free to make any additional comments they wished. Thereupon they would first ask the newcomer if he knew they were in a somnambulistic trance state, and then they would ask him if he could recognize their arousal from the trance state, which was to be in accord with the ordinal numbers of

1 to 5, which had been given to them separately so that each of them would await his own turn to arouse. Should he fail to recognize their trance state, he would be challenged as to which were the first of them to awaken, and if he failed to do so correctly, those still in the trance state were to inspect their group and to write down in a notebook the correct identity, adding to the name the existing state of awareness. Also, before verbalizing their appraisals, they were to write them down. Upon awakening, they would remember the situation but have an amnesia for the simulator's individual performances and for the appraisals, which were separate from each other and to be remembered separately.

The results were in accord with actual and expected possibilities. The simulator had immediately been recognized as such in every regard; he failed to realize that they were in a trance state, also to identify the arousal of each of them. Additionally the simulator was startled to discover their separate amnesias for each other's appraisals, and that they all had identified the same three instances where "he started to go into a trance and then drew back."

The author had been rather mystified when the five somnambules had had whispered conferences and then had written down a comment that they had apparently agreed upon unanimously. This comment was that the author had also recognized that the simulator had three times started to go into a trance state but that he had withdrawn from such entry, and that they were also aware that the author was maintaining an attitude of nonparticipation, that all of his suggestions were offered in such a way the simulator was allowed to make, without help from the author, the choice of going into a trance or to continue simulating, and that there was no effort made to utilize those three instances when the simulator started to go into a trance to induce a trance. Neither had the author tried to induce a continuance of the simulation. It was apparent to them that the author was interested only in what the simulator would do in the situation in which he found himself.

The attitude of the simulator toward this exposure of his simulation was recognized by him as a genuine scientific inquiry to see how well somnambulistic subjects recognize somnambulism, simulation, and any particular behavior that they might observe. This instance served to induce the author at every possible opportunity to use somnambulistic subjects to check on other hypnotic subjects and to check on his own behavior. This has been found to be a very significant factor in the author's development of his own hypnotic procedures.

Over 300 of these somnambulistic subjects had been used previously to this study in other kinds of nonhypnotic, systematically organized experiments in the waking state, and in experiments investigating color vision, automatic writing, anaesthesia, recovery of lost memories, etc., in which they had manifested a satisfactory degree of somnambulism. Half of these subjects were first used for this experiment in the waking state, and the other half were first used in the trance state. In employing the remaining 350 hypnotic subjects, half of them underwent their first hypnotic experience in connection with this study, although they were deliberately given an impression that the purpose of the hypnosis was for some other unrelated activity. For example they were intentionally

allowed to think that the simple training procedure of automatic writing was an experiment in itself, when the purpose of such a teaching session was that of inducing and maintaining a deep trance despite activity in relation to reality objects such as pencils and paper, or chalk and a blackboard. Similarly, teaching them to remain in a deep somnambulistic trance with their eyes wide open was another training task which actually had no other meaning than that of remaining in a deep trance. Those used first for this experiment were subsequently used for other experimental purposes as another check on their hypnotic abilities. A few subjects had had hypnotic experiences before meeting the author, and these gave responses similar to those undergoing hypnosis by the author only. There were also some 30 subjects trained in hypnosis by students of the author. These were as easily used for this experiment by the author's assistants as by the author himself, or by those who had first trained them. The results they gave were in full accord with findings on other subjects.

## SUBJECTS

Although over 2,000 persons participated in this experiment, the original plan had called for only 300, of whom approximately 100 were to be somnambulistic subjects. Other work and experiments intervened and more subjects were added until it was realized that the original figure had been far surpassed. Difficulties of preparing the manuscript and some fortuitous circumstances resulting in a sudden acquisition of large numbers of new subjects through special teaching projects postponed the conclusion of the experiment repeatedly.

There also arose the question of finding an exception to the experimental results. This led to the enthusiastic securing of a large number of additional subjects in the desire to secure negative results, but all findings have been consistently positive. Every spontaneous negative result would lead to the discovery of a light or medium trance, whether the inquiry was made by the author or by other investigators. Invariably the subjects would explain *a feeling of contact with the environment and a need to lessen or to awaken from the trance so that they would not "give a wrong answer."* *Careful questions failed to disclose what would be the "wrong answer."* The usual response was, "Well, just wrong in some way I can't explain." This remarkable reply was obtained not only by the author but by his assistants, who did not know that the author and others had also received similarly meaningful replies, not always in the words quoted above, but words having a similar meaning.

And the past 16 years of private practice have added a large number of additional subjects. For example in the final week of 1964 three private patients—one seeking freedom from university examination panics, one seeking relief from headaches diagnosed as functional by three neurological clinics, and one woman pregnant for the first time and sent to the author by her obstetrician for hypnotic training for delivery—all developed somnambulistic hypnotic states and were used to review various statements made in this study. Nor was this specific week a remarkably unusual occurrence in the author's private practice of psychotherapy.

Classification of the subjects employed has been difficult because of the long period of years during which this experiment was in development. Undergraduate students used as either hypnotic-state subjects or waking-state subjects might not be retested until they were graduate students. Medical students might become interns, interns sometimes became residents, and residents sometimes became staff members before their contributions were completed. Student social service workers often became graduates and staff members. The only constant subjects were those at the non-college level or were members of the medical staff of the hospital and the actually psychotic patients who were used but not included in the total results. These latter totaled 25, and despite their psychotic state, which was manifested in both the waking and the trance states, they were constant in their experimental performance. Their results agreed with those obtained from well-adjusted, highly educated subjects. Another class of subjects that remained constant was formed by those persons employed from the author's private practice where experimentation did not interfere with the psychotherapy for minor maladjustments. Often therapeutic goals did not permit a large number of experimental repetitions, but the experimental results obtained from such subjects were in harmony with results obtained from volunteer subjects obtained from a college population.

In all, four college populations contributed a large number of subjects. For example one three-hour lecture-demonstration to over 500 students yielded 137 somnambules who were trained *en masse* but used as experimental subjects separately by the author and his assistants on the next few weekends. One other such massive yield was 93 subjects from a single lecture-demonstration to a large audience of another university. As it was, the author's extensive lecture-demonstrations before medical and hospital groups, and the attendance of nurses and social service workers and hospital personnel rendered relatively easy large numbers of subjects who could be tested for this experiment over weekends.

## **PROCEDURE AND RESPONSES**

In performing the experiment, immediately upon reading the card of instruction to the subject as given above, the experimenter fixated his gaze completely upon the card and awaited the subject's reply. If further instructions were wanted, the experimenter merely reread the typewritten instructions and patiently waited.

There were in essence *two kinds of responses—the nonhypnotic and the hypnotic*. The age, sex, and history of previous hypnotic relationships with the experimenter, or *previous hypnotic or nonhypnotic experience with the question, place, situation, or occasion had no altering significance upon the answers obtained*.

*The nonhypnotic response was an answer in terms of a complete reality perception and an orientation to the total reality situation, while the hypnotic response was invariably in terms of a restricted, limited, and altered perception of the realities constituting the hypnotic situation.*

To illustrate by an impromptu experiment from a lecture on and a demonstration of hypnosis to a medical society, a somnambulistic hypnotic subject manifesting negative visual hallucinations was told to see Dr. X, who was in the audience and who actually happened to be sitting in front of a midroom narrow supporting column. In that setting the subject was asked, in this first-time hypnotic experience for him, "*Where in this room, if you had a three-by-four-foot picture of Dr. X, where in this room would you hang it? Consider carefully, and when you have made up your mind, specify exactly.*"

Slowly the subject surveyed the walls of the room, apparently continuing to be unaware of the audience of more than 200 physicians. Finally he turned gravely to the author and pointing with his finger at the column directly behind Dr. X, stated, "I would hang it right there." This was a familiar response to the author but most unfamiliar and mystifying to the audience. It served to impress upon them that hypnosis altered a person's behavior significantly.

The author continued his lecture and demonstration for the physicians and later repeated exactly the same question, this time first having the subject become aware of the presence of Dr. Y, who happened to be sitting on the steps of a wide staircase. Further complications were added by having the subject first question Dr. Y about the weather, then turn to the author to relay the replies actually made, and then, while the subject was facing the author, Dr. Y, in response to signals not visible to the subject, quietly moved to another part of the room. The purpose of this was to demonstrate to the audience that an orientation to a reality object once achieved could continue unimpaired by reality changes. When the subject had finished reporting upon Dr. Y's replies, he was asked to question Dr. Y in new regards. He turned back to where Dr. Y had originally been sitting and asked further questions, to which Dr. Y replied from his new position. The subject reacted with a startled response and commented to the author that Dr. Y had changed his voice in some "funny way" which he, the subject, could not understand. But, as the audience realized, the subject was obviously hallucinating visually, and he continued to so hallucinate Dr. Y as sitting in his original place. To continue the impromptu experiment the author again asked the subject the test question in relation to Dr. Y that he had previously asked in relation to Dr. X. Slowly, thoughtfully, the subject surveyed the entire room, then his eyes returned to the hallucinatory Dr. Y and he stated that he would place it "Right there." Cautious inquiry indicated that "right there" constituted a space approximately six feet above the hallucinatory Dr. Y's head, and approximately one foot to his rear, which would place the picture in the empty space of the stairwell!

Still later in the discussion being offered to the audience the subject was asked to see Dr. Y's "identical twin brother sitting over there," indicating a seat in front of a window where Dr. Y was then actually sitting. The subject immediately recognized Dr. Y's features, turned to make what seemed to be a visual comparison of the actual Dr. Y with the hallucinatory figure, and freely commented that they enhanced their similarity by wearing the same kinds of suits, but that the second Dr. Y was smoking a cigarette while the first was not. (This was true. In his new position Dr. Y had lit a cigarette, but he had not been smoking in his original seat.) The subject was then asked the same questions about the "second Dr. Y" as he had been asked with Dr. X and the real Dr. Y. Again he

thoughtfully surveyed the entire room, his gaze lingering most at the site of the place he had selected for the picture of Dr. Y. Finally he commented that the two pictures ought not to be hung side by side, and thereupon he indicated that the picture of the "second" Dr. Y should be hung directly above him at the place where he sat. This placed it squarely in front of the upper part of a window.

The subject was reminded that three times he had asked *where he would hang three separate pictures* and he declared that, while the author had been speaking to him, *this had been done*. (This sort of spontaneous development was encountered many times during the experiment and in itself emphasizes the possibility that the hypnotized subject's apprehension of reality is markedly different from that of a subject in waking state. In other words the mere request of *where* he might hang the picture sufficed to have the subject mentally accomplish an actual hallucinatory positioning of the merely specified picture in the question asked. This sort of a spontaneous development was a fairly frequent occurrence during the entire course of the experimental work, not only in the author's experience but in that of the other experimenters employed. However, no special effort was made to elicit this particular item of information (that there had been an hallucinatory hanging of the pictures), since it seemed that such effort might constitute some form of influence upon the subjects' spontaneity of response. The most frequent form in which this development occurred would be the subjects' satisfied spontaneous approval of the "pictures" in the sites they had selected, but this was not a constant feature and hence no questions were asked. In relation to the nonhypnotic subjects comparable reactions would be, "Yes, I really believe that such a picture *would* fit very well there," or perhaps, "I believe it could be placed over there too," indicating another place on the same or a different wall.

Since the demonstration subject had volunteered the information that the hypothetical task of the picture hanging had been done, he was asked to examine all three pictures critically and to appraise the "fitness of their hanging, the appropriateness, the suitability" and to offer freely any suggestions that might occur to him. Slowly, critically, the subject examined all three areas, and then expressed, with full satisfaction, the opinion that all was well except that the portrait of the "second Dr. Y" was hanging slightly askew. The author immediately noted that Dr. Y was actually leaning to one side with his chin in his palm and with his elbow resting on his knee. Such a comparable finding has been sought repeatedly by deliberately asking a waking subject to visualize on the wall a picture of someone present and having that person subsequently slump in his position. In no instance has a waking subject's visual projection been affected by the subsequent physical shifting of the reality object. The contrary is common only with hypnotic subjects in a somnambulistic trance. Remarking to the subject that this would be corrected shortly, the author proceeded with his lecture. (Dr. Y obligingly sat up straight, and some 15 minutes later the subject spontaneously observed that the picture had been "straightened out.")

No picture-positioning request was made of this subject in the waking state.

So far as the group was concerned, only the author knew that an experiment of special interest to the author was being conducted. The audience merely looked upon the proceedings as an impromptu development of the lecture-demonstration situation for their instruction, as indeed it was.

Many months later the author was asked to present another lecture-demonstration for the same group in the same meeting-place, perhaps using the same or other subjects, the particular purpose being a demonstration of the control of pain both directly and post-hypnotically.

Advantage was taken of this opportunity to employ three subjects, the one who had been used as described above and two other subjects who had not been used in any relation to the experiment central to this study and who did not know the first subject. The two new subjects had previously been used in a separate experiment concerning an investigation of hypnotic deafness (Erickson, 1938).

To all three subjects, one at a time and separately (the other two were asked to stay in a waiting room), the original medical-lecture impromptu experiment was repeated with each subject *in the waking state* and with the rationalized explanation, "Since it is not yet time for the meeting to begin, let's pass time while the rest of the audience is coming. There sits Dr. X. *Where in this room, if you had a three-by-four-foot picture of Dr. X, where in this room would you hang it? Consider carefully, and when you have made up your mind, specify exactly.*" (The procedure was then repeated concerning Dr. Y.) The subject used previously apparently did not recall his previous execution of the task in the trance state, but no test was made of possible recollection. His behavior was highly suggestive of a total amnesia.

Each subject obligingly surveyed the walls of the room, and each one selected areas on the front wall behind the speaker's desk, actually a spatially appropriate place for hanging such a picture. As a departure from the original procedure each was asked separately for a second and third placing, repeating the wording of the original request. In all three instances second and third possible positionings of the pictures were proposed, each subject giving his own and actually good reasons for each proposed site but which did not necessarily agree with the choices and reasons of the other two subjects. All of this waking-state-positioning of the hypothetical pictures was done in relationship to the spatial area of the walls and the view afforded to the possible viewer of the picture. The physical presence of Drs. X and Y, obligingly occupying the same seats for the subject used originally and their changing of their positions to other spots of the room, had no bearing upon the selection of proposed picture sites. Yet the same three subjects later in a somnambulistic trance selected separately, as proper sites for pictures of Drs. X and Y, unlikely sites for the pictures but sites which were in direct relationship to the physical presence of the two men. They disclosed no awareness nor influence of the total general reality situation. Although "Where in this room" constituted the exact question, the replies received were invariably couched in the subjects' apparent *trance understandings* or apprehension of the physical reality, which was definitely not in accord with their ordinary waking understandings of reality. In fact, the subjects' reality apprehension

appeared definitely to be another type of experience than that of their waking state. The subject who had been previously used gave hypnotic responses comparable to those of his original experiences. Sophistication did not alter his trance responses.

In still further demonstration of hypnotic behavior, at another medical meeting before which the author had not previously appeared, the topic for presentation was "Induction Techniques." To make this presentation the medical group had secured 10 possible volunteer subjects for the author, with none of whom he was acquainted until each was brought separately from a waiting room and introduced to the author. The reason for this formality was to insure that each subject would have to be approached with no previous awareness of what the author had done with the preceding subjects, thus to preclude any imitation or possible collusion. It was the desire of the medical group to appraise hypnosis as a legitimate and significant phenomenon and to do so in a controlled fashion.

This intelligently critical atmosphere constituted an excellent setting for further impromptu experimentation, since no one present knew of the author's private experiment. Hence, as each subject was brought forward by the physician in charge of the subjects and introduced, supposedly only for the purpose of the demonstration of variations of techniques of hypnotic induction, an item of which all the subjects had been apprised, remarks were made to the effect, "I do not know if you are acquainted with that gentleman (pointing), the one with the (bow tie, striped four-in-hand time, long-stemmed pipe, flower-in-lapel, or any special easily identified item), but then neither do I know if you are acquainted with (and then other physicians would be designated by another series of minor individual identifications)." Thus two or three persons could be selected at random, apparently for the purpose of initiating a conversation with the volunteer subject. The actual purpose, however, was to select two or three people advantageously seated for experimental purposes.

To each volunteer subject, none of whom had seen or experienced hypnosis, the standard question was put, "Where in this room, if you had a three-by-four-foot picture of (that doctor with the bow tie or whatever the specific identification mark was), where in this room would you hang it? Consider it carefully, and when you have made up your mind, specify exactly." To the audience as well as to the subjects this was merely a casual, irrelevant question serving merely as pointless, more or less routine, introductory conversation.

In each instance the subjects surveyed the walls of the room and indicated a spot spatially appropriate, although the choices of such spatially appropriate places varied somewhat. For example one subject said, "I'd take down that picture there and put up the new one." Another said, "The best place is already occupied, so it would have to go there," indicating another wall area.

Then, after each subject had developed a trance state, and several hypnotic techniques had been demonstrated and a discussion of the specific induction techniques used had been given, the subject, in a somnambulistic trance, was again asked the same question which had been originally put to him in the waking state. It was learned that it made no

difference whether the subjects were unaware of the audience or were in full rapport with and able to answer questions from the audience responsively and adequately. Nor did it matter whether the special question was put by the author or by a member of the society placed in rapport with the subjects, or whether the question was read from a typewritten card or merely asked. The inquiry, "Where in this room, if you had a three-by-four-foot picture of (whomever had been picked out for that subject in the waking state), where in this room would you hang it? Consider it carefully, and when you have made up your mind, specify exactly."

Without fail *each subject in the trance state slowly, thoughtfully surveyed the room and then placed the picture above and slightly behind the selected person, regardless of the absurdity of the reality background.* This departure from their previous waking performance of the same task was readily appreciated, and it was most impressive to the audience. It served to illustrate to them that hypnosis could alter significantly a subject's response to stimuli, an item of fact of great medical interest to them.

For each of the last two of these 10 subjects, both of whom proved to be excellent somnambulistic subjects, a new procedure was devised and repeated with each of them separately. This new measure was that, as one subject separately entered the room and before he had mounted the speaker's platform, he was halted by the author's request that "Will the man with the rumpled hair and the heavy beard and the one with the bow tie and the white carnation in his coat lapel leave their seats in the audience and sit on the speaker's platform" in two indicated chairs which had been placed in front of a ten-by-twelve-foot oil painting of a historical scene. The physicians acceded to the request for each subject, both times with some embarrassment and self-consciousness, while each subject watched with curious interest. Then the subject, still in the waking state, was asked the crucial picture-positioning question in relation to these two selected physicians in their new positions. Each of the subjects freely surveyed the walls of the auditorium and gave the usual reasonable waking responses.

Then, after the two subjects had been used for a technique demonstration and discussion, each was asked, still in the somnambulistic trance and out of rapport with all except the author, the picture-positioning question about the two physicians actually on the platform with him but who were identified only verbally for him by the special descriptions offered when they had been seated in the audience. Slowly, thoughtfully, each subject surveyed all the walls of the room and then seemed to be hesitating, to the author's intense astonishment, over a choice between *the wall behind the two physicians*, which was occupied by the oil painting, and *positions in direct relationship to the seats where the men had originally sat*. Finally a choice was made of a spot slightly above and to the rear of each doctor as he sat before the oil painting. Immediately the author asked, "Will you please ask each doctor if he agrees with your selection of a spot to hang his picture?" Unhesitatingly, again to the author's astonishment, both subjects turned from looking at the hallucinated pictures toward the audience and looked at the places where the physicians had sat originally. Apparently their initial awareness of those physicians occasioned by the author's request that they change their seats had had the effect of identifying those physicians for both subjects *in relation to audience-position*. In other

words the change of position that happened in response to the author's request of the physicians became unwittingly a part of the trance environment, while the first sight of those physicians remained an abiding item of waking audience-reality. As they looked at the physicians hallucinated as being in the audience, each declared that their picture-positioning was affirmed by an affirmative nodding of the head by both physicians as they apparently hallucinated them in the audience.

One may speculate that the original identification of the physicians as audience members and the question of picture-positioning of both became a part of the actual external waking reality. *Then in the trance state a new and different trance reality developed which included hallucinated pictures to be hung on walls apparently differently apprehended than in the waking state.* The question of the physicians' approval then introduced into the trance state a need for a part of the original audience-reality, which was met by substituting visual memories of the physicians-in-the-audience experience and yet maintaining intact their trance-reality apprehension. In further discussion of this matter there may be added the fact that this peculiar incorporation into the hypnotic state of reality apprehension of a part of the waking-state-reality-apprehension has been frequently encountered in somnambulistic subjects engaged in complex behavior. Of interest is the fact that, however contradictory the two different apprehensions of reality are, the subjects experience no sense of incongruity or conflict. In this instance the description-identification of the men before the subjects mounted the speaker's platform apparently remained a part of waking audience-reality. Their presence on the platform was apparently a part of the hypnotic-reality background. Hence they hung the pictures in relation to the hypnotic setting, but when asked to secure a waking-reality opinion, they turned to the originally established waking-audience-reality. The hesitation in hanging the pictures does not necessarily imply conflict but may simply imply a choice between the two seemingly equal (to them) reality values.

Of the 10 volunteer subjects for this lecture-demonstration, four had been found, so far as the author was concerned, to be unresponsive to hypnosis, and after the author's failure to hypnotize them, they were allowed to sit in the audience. One of them, at the close of the meeting, volunteered again to be a subject, an item of intense interest to the audience. He proved this time to be an excellent subject, and he, too, like the other subjects in the trance state, placed the picture of another man with a dotted bow tie in an impossible place and later in a likely place in the subsequent waking state, but with an amnesia for his trance behavior.

As for the other hypnotic subjects, they had one by one been sent into another room as each had finished his share in the lecture-demonstration, under the watchful eye of the building custodian, who had been instructed to allow no conversation among them.

Actually this precaution proved to be unnecessary, since each subject had been dismissed posthypnotic ally in a trance state with instructions to rest comfortably and restfully until the author again needed him, and all had obeyed. This precaution was solely in the event that questions by the audience might require calling them back, and it was not desired that they exchange information.

As a closing part of the meeting these six subjects were aroused from their trance states and summoned separately into the lecture room. There each was asked, using the same procedure and question, to indicate where they would place a specified hypothetical picture. Again, despite their previous trance behavior and entirely in accord with waking reality behavior, they selected areas on the wall in relationship to suitable spatial requirements, nor did unwanted, suggestions from the audience influence them.

The above instances are cited in detail because, though they do not form a part of the data of this experimental report, they allow a more comprehensive understanding of how an experiment can be done as an incidental part of a larger activity and not appear to the subjects as a planned study. Also, they illustrate clearly and vividly the experimental behavior elicited in the experimental study itself.

## **RESULTS OF EXPERIMENTAL STUDY**

Returning now to the experimental study, the results obtained from both the waking and the hypnotic groups were consistently comparable within each of the two groups and consistently different in character for the different groups. The waking subjects viewed each of the four reality objects with no interest in their position at the moment. It made no difference to them whether, for example, the snapshot was on a windowsill, a desk, or a bookcase. They merely surveyed all four walls, visually measuring wall space. They then indicated where they would hang such a picture *if there were such a picture*. Additionally many added to their wall-space-appraisal consideration of the vantage point for a person entering the room as possibly different from that of a person seated in the room.

Consideration was given also to the lighting effects of the windows and the possible light reflections from the lighting fixtures. All of them ruled out as not meriting consideration certain wall areas either by direct statement or by their disregard after one appraising look. Some debated the suitability of one wall space as compared with another, and second and even third choices were given. But all choices were in terms of the external realities of wall space, lighting, the point of vantage for the viewer, and other esthetic considerations.

For the hypnotic subjects the problem was solved in a totally different way. The reality object of which a picture was to be hung was viewed with intensity. There was then a slow, careful visual searching of all the walls, apparently with emphasis equal to that of waking-state subjects, and then despite physical realities, the subject's gaze would return to the object and a slow, thoughtful positioning of the suppositional picture in direct relationship to the reality object and at varying heights above and behind the object itself would be carried out. This happened regardless of whether the selected areas were an empty space, a window, steam pipes, a corner of the room, a ceiling-high bookcase, a blackboard, another picture, or an impossibly small space. Occasionally a subject would offer as a second choice a slightly higher or a slightly lower positioning of the picture. None gave any consideration to the external realities of actual wall space, lighting effects, vantage point, or any other external reality consideration.

Subjects who were first tested in the waking state gave the characteristic responses for that state. External realities governed their responses entirely. Yet, when they were subsequently tested in that same room in the somnambulistic hypnotic state, they gave the characteristic response of the somnambulistic hypnotic state. They were uninfluenced by their previous test behavior, and external realities were without effect. Subjects tested first in the somnambulistic hypnotic state gave the characteristic response of that state of awareness. Then, when tested in the waking state, they were uninfluenced by this previous hypnotic test behavior and gave the characteristic external-reality-determined responses of the waking state.

Only one of the test-reality-objects remained constant—the snapshot of the picture of the bowl of fruit. The bowl of fruit necessarily changed repeatedly, and retests done on both waking and hypnotic subjects with different bowls of fruit in no way affected the responses elicited. The person known to the subject and the snapshot of a person known to the subject necessarily varied with different subjects. The use of the same person and the same snapshot of a person for tests in both states yielded no variation in characteristic results. The use of different persons and different snapshots for each state and for separate retests had no effect upon the findings. In essence test-reality-objects were merely test objects for both types of subjects. The task requested constituted the governing factor in their responses, and the responses were in consistent accord with their state of awareness.

The subject behavior may be illustratively summarized as follows: The snapshot of a person known to the subject, whether placed on a desk, on top of the bookcase, on a windowsill, or in some other casual position, was viewed by the person in the waking state and then the walls of the room were speculatively scrutinized and different areas compared. A final judgment would then be offered matter-of-factly for the hanging of the three-by-four-foot picture of the snapshot. In the trance state the same general survey was made of the room but always with hesitant behavior as the wall or the space above the position of the snapshot was viewed. Then with increasing decisiveness the hypnotized subject would indicate an area above the snapshot regardless of its unsuitability for picture hanging—it might be a window, it might be occupied by steam pipes, it might be in a corner where it would be impossible to hang such a picture, or it might be empty space.

Another item of significant interest to this experimenter concerned the use of light- and medium-trance subjects. With both of these types of subjects it was found that there persists a definite subjective contact with reality which is sufficient to be verifiable by objective tests such as involuntary reactions, avoidance responses, startle reactions, etc. When the experiment was first outlined, the decision was made that only somnambulistic subjects would be used for the reason that these subjects presented the clearest evidence of the hypnotic state as differing from the waking state. Since that was the experimental question, and not an investigation of the degrees of difference or kinds and variations of difference, but only the question of an existence of an identifiable difference, the author and his advisors and assistants felt that the use of only somnambulistic subjects would be

appropriate for the proposed study. However, as the study progressed, a separate study was made employing variously light and medium-deep hypnotic subjects.

These, too, showed a different reality apprehension than they did in the waking state. This difference was primarily one of degree, ranging from slight to that approaching the reality apprehension of the somnambulistic trance subjects. In the lighter stages of hypnosis external reality seemed to remain constant, but "less important," "not so real." The task of hanging a picture had to be accomplished by envisioning the task with the eyes closed, since opening of the eyes tended to disrupt or terminate the trance. This in itself was a situation. Also the actual task seemed to be disturbing to the subjects' sense of mental and physical peace, and there was a tendency to consider the task unwillingly and then to forget it. As the trance depth progressed from the very light stage to the deeper and deeper levels, external realities became increasingly "unreal," "not there," or "I forgot them." Some of the medium-deep subjects could keep their eyes open, even see the specific snapshot, but their peripheral vision was subjectively unclear and reality objects were obscured. This latter phenomenon was tested by introducing alien objects into the range of peripheral vision, which could be done without the subjects seeming to perceive them. However, when the good medium-deep subjects attempted to appraise the walls of the room for picture hanging, their peripheral vision would return, the trance state would lessen or vanish, and alien objects introduced into the setting would be seen immediately. Hence it was reluctantly concluded after several hundred tests that adequate experimental measures had not yet been devised for light- and medium-trance subjects. After a vast amount of data had been collected on somnambulistic hypnotic subjects, a variation was tried after experimental testing of other subjects disclosed no significant alteration of their behavior under comparable circumstances. This new procedure was to express a doubt as to the suitability of the trance-selected spot for hanging the picture. Responsively the subjects willingly selected a spot on the wall faced by the snapshot, regardless of any reality suitability. The same thing occurred with snapshots of a bowl of fruit, with one difference. While subjects tended to place the suppositional picture of the bowl of fruit on the wall nearest to it, if this were not accepted, they placed the picture on that wall immediately opposite. If the bowl of fruit were employed and they were standing in front of the bowl, or they were standing to one side of it, they would place the picture of it on the wall forming the general background of the bowl of fruit. The suitability of the wall position did not enter into the question of picture-positioning, either for the experimental subjects or these trial subjects, although rooms were sought where the walls, such as those of the library, would render the hanging of pictures a difficult problem. The physical dimensions of the bowl of fruit seemed to have no significance in positioning a suppositional picture of it.

As this experiment was being continued, several minor experiments were conducted. With the aid of colleagues a number of volunteer subjects unknown to the author were secured. Among these were subjects with whom the colleagues secretly arranged that they simulate in the true sense of the word the state of being in a trance. They were not apprised of what tests the author might make, since this had not been revealed.

They were hypnotized in a large group arranged in a circle, facing outward so that they could not watch each other, and they were under poor lighting conditions to preclude the author from scrutinizing them closely. When all of them seemed to be in a deep somnambulistic trance, they were told that, continuing in their deep trance state, they would be led separately into another room by an assistant to whom they would indicate, if they had a three-by-four-foot picture of a snapshot which they would see in the next room, the place where they would hang it. This place they were to specify to the assistant, who had been selected because she knew nothing about the purposes of the entire procedure.

The assistant reported that three of the subjects had positioned the suppositional picture "sensibly" and that seven had been "ridiculous" in their choices of position, but that she had accepted their statements uncritically as instructed and had duly recorded them. (The colleagues had intentionally actually chosen seven somnambulistic subjects and three subjects who had never previously been in a trance.)

The three "sensible" subjects were promptly apprised by the author that they were subjects who obviously had not been hypnotized and they were told that they had been asked to deceive the author. To their curious inquiries of how they had betrayed themselves, since they knew nothing of their performance of the real subjects, it was explained they would be given an opportunity to learn.

They were all taken to the test room, the picture-positioning question put to them, to which they responded by wall-reality-evaluation responses, and they were then told that their responses were waking responses, that actual hypnotic responses were otherwise. They were then asked, without discussion among themselves, to attempt to perform the task as if they were in a trance state, and to study the problem silently until they were certain they could do this. When ready to do the task the "right hypnotic way," they were each to take a pencil from their jacket pocket and to hold it quietly as a signal to the author. Thus, in achieving "proper hypnotic placement" by them, there was precluded any awareness of what the others were doing. After 15 minutes one subject signaled the author. Another 15 minutes were allowed to pass. Then, since the other two subjects seemed to be at a loss, the one who had signaled was asked the experimental question, and he selected a position in accord with the trance-state response. The other two subjects offered adverse critical comments until they suddenly realized that their colleague was obviously in a deep, somnambulistic trance and out of rapport with them, although in rapport with the author. They began studying his behavior and appearance with much interest. One was a medical student, the other was a graduate psychology student. Quite suddenly the latter lapsed into silent thought, studied the snapshot, the subject, the impossible place on the wall, and he was observed to narrow his eyes as if to form a new visual focus on the wall. Visibly he developed a trance state out of rapport with the others and out of rapport with the author. When this had been established, the author slowly moved the snapshot at which this subject had been seen to look closer and close to the subject's face; then he stood behind the snapshot and repeatedly moved it up and down to indicate the author's face. Shortly the puzzled look on the subject's face was replaced by an expression of recognition of the author, and rapport was thus established.

The second subject was instructed to awaken from the trance state with full memories and understandings of his behavior. These proved to be only partially satisfactory. In essence he explained:

"When I realized the absurdity of his choice of a place to put the picture, I began thinking that it was probably a different way of seeing things in a trance. So I half -closed my eyes and tried to get them out of focus so I could see things differently. It reminded me of my childhood "pretend" games. And the next thing I knew I was all alone looking at that snapshot, which began moving queerly. The more I watched it, the more it seemed to move in a meaningful way, and all of a sudden I saw you and knew you wanted the picture hung, so I picked out a spot just back of you and above you, and *there I saw the picture hanging in what I know now was midair*. But everything was completely natural to me and nothing seemed different or unreal. I just don't understand."

Nor have other introspective accounts been any more informative.

The other subject immediately attempted to develop a trance but failed. The first of these three subjects who had developed a trance was awakened, and it was found that he had a complete posthypnotic amnesia. The three subjects were allowed to discuss what had happened. The first subject did not believe that he had been in a trance or that his fellow subject would position a picture in the manner that was described by the subject who had not gone into a trance. Neither would he believe the statements of his fellow subject who had been given a waking memory of his trance behavior. Such picture-positioning would be, this subject declared, "totally unreasonable." When informed that he had been in a deep trance and had similarly positioned a picture in a "totally unreasonable" manner, he disbelievingly denied such a possibility.

## **EXPERIMENTAL PROBLEMS**

From the beginning of the experiment certain difficulties were encountered in relation to the experiment itself as well as the subjects. These problems, however, did not tend to invalidate the experiment, but in their significances they enhanced the findings.

The rooms in which the experiment was done constituted a problem, but only for waking state subjects. In formulating the experiment it was assumed that any room might be used for tests in both states of awareness. It was soon realized that since all subjects could not be tested in the hypnotic state, some rooms would be used only for waking subjects, especially since such subjects would be tested in various locations. However, the opportunity did arise frequently to test hypnotic state subjects in both waking and trance states in rooms where only waking state subjects had first been tested. This served as an actual control, since only in certain regards to be discussed immediately were rooms a significant factor.

This special significance of rooms occurred only in relation to waking state subjects. All rooms had to be "reasonable" to them. When a room such as a library with all walls completely covered from floor to ceiling with bookshelves was used as the experimental room, waking state subjects, wondering and unbelieving in their attitude toward the

author's experimental sincerity, rejected the task as absurd. They simply could not believe that the experimenter was serious in his request, and special effort and persuasion had to be used to secure even a half-hearted response from them. Yet the hypnotic state subjects in a deep somnambulistic trance could be taken into such a room for the first experimental testing and they would indicate as a suitable space for hanging the suggested picture an area above and to the rear of the reality object, even if it were a person leaning against a floor-to-ceiling bookshelf, or a snapshot actually placed on the bookshelf, or a bowl of fruit placed on the floor at the base of the bookshelf. The only effect of such a floor placing was to cause the selection of a "wall" area at the subjects' eye level. Yet these same somnambulistic subjects would later in the waking state show the typical waking state behavior to such a room. These findings in themselves are of definite significance in confirming the experimental findings.

In relation to the subjects themselves the difficulties centered around two special types of subjects, (1) the argumentative, and (2) the overly conscientious. There were relatively few of these, and they enhanced rather than detracted from the experimental findings.

The argumentative subjects were those who took issue with both the experimental room and the experimental task. They were all waking state subjects, and they discredited the wall space and the room in relation to the picture or the picture in relation to the room size, the wall space, the use of the room, or the suitability of the pictures themselves. The task itself, as a mere *if* proposition, was completely disregarded and rejected. They wished to argue and to debate questions of "fittingness." Yet some of these subjects, who had to be rejected for this experiment because of their critical waking attitude, were subsequently used in other hypnotic work, and the excellence of their hypnotic behavior suggested that it would be of interest to test them for this experiment in the somnambulistic state. Fortunately 18 such subjects were used and tested, some by the author, some by his assistants. In the somnambulistic state, regardless of their previous adverse waking state behavior, they gave the typical hypnotic responses. Then later, when tested in rooms with which they could not take exception, they gave typical waking state responses, except that invariably they took issue with the hanging of at least one or two of the hypothetical pictures, usually the picture of the bowl of fruit or of the snapshot of a bowl of fruit. The original testing room, accepted so easily in the somnambulistic state, would again be rejected in the waking state. In all instances the hypnotic testing was done at least six months after the original waking state test. Another six months later a retesting was done on 11 of these subjects, with entirely comparable results except for an omission of the originally rejected room. Three months later only seven of these subjects were available. They were tested in the waking state in the original test room. Four said in effect that because of the author's persistence they would abide by the unreasonable request and indicated possible wall areas, but two voiced general adverse criticisms of the task, and all four speculated aloud about why the experimenter had ever considered choosing so unsuitable a room. The other three summarily rejected the task and reminded the author that they had once, many months before, rejected that room. These 18 subjects were included in the experimental findings for hypnotic state subjects but were not included among the waking state subjects because of their rejective and

selective attitudes toward the task and the special care needed to secure waking state responses.

The over-conscientious subjects were troublesome in one or the other or both states of awareness. In the waking state they manifested much uncertainty, debated the suitability of the room, of the picture, of the wall space, of the vantage point for the viewer, the lighting effects, and changed their minds repeatedly for different reasons. Hence they were not considered suitable as waking state subjects. They were not accepting the experimental task but merely cheating from it another task of troublesome decisions involving other considerations.

Thirteen of these subjects were trained to develop somnambulistic trances. However, even in the trance state their personality attributes interfered. There was no ready simple compliance with the task. For example, when asked where the picture of the person present should be placed (standing beside a desk in the middle of the room), they would view him from various points of view, would perhaps ask him to change his position, or even move the desk in order to view him differently. Then they would reconsider the problem in relationship to his immediate spatial surroundings, or in relationship to the spatial relations of the desk beside which he had originally been standing, and then perhaps they would position the picture on the wall to which the desk had been pushed. Also, they would request that the snapshot of the person or the bowl of fruit or the picture of the bowl of fruit be placed in new positions while they considered other possible positionings of the suggested picture. Briefly, even in the trance they created new tasks instead of executing the one requested.

Fortunately two of these obsessive-compulsive persons were encountered early; this led the author to seek out others deliberately and to determine if such subjects could be used. Whether in the trance or the waking state they invariably manifested a need to alter and to change the experimental situation. Hence these subjects were not included in this experiment, and such personalities were avoided as possible subjects. However, it was noted that in the trance state they very definitely tried to position the suppositional pictures in relation to the spatial relationships of the object rather than in relationship to reality wall space, even though they did not abide by the experiment as formulated.

Concerning the question of sex as an influencing factor in this experiment, it was of significance only in relationship to the above-described difficulties. More females than males took issue with room choice and picture suitability, or argued issues and were overly conscientious. Otherwise the sex of the subjects was unimportant so far as experimental findings were concerned, but women did volunteer more readily than did men, so that the distribution was about 60 percent female and 40 percent male.

Another type of expected experimental difficulty that occasioned much concern at first and later was found to be of little importance was the question of intercommunication between subjects. One measure of control was the suggestion of posthypnotic amnesia for all hypnotic work. This was found to be decidedly effective except for the overly conscientious subjects, who "worried for fear of remembering what was supposed to be

forgotten." These subjects, as has been noted above, were eliminated as unsuitable for both states of awareness.

For waking state subjects the intercommunication was minimal and had no effect upon the experimental findings. Nor did subsequent rumination occur sufficiently to have any significant effect, although careful indirect inquiry was made, and later even direct inquiry was found to be without effect on task performances.

However, as insurance against intercommunication there were intensive efforts to effect a misdirection of attention. Thus, when extensive work was done in a single location with many subjects, there would be performed other and much more interesting attention-compelling tasks which were undertaken to insure that discussion would be on work not connected with this experiment. For example automatic writing as a possibility in both waking and hypnotic states distracted one large college group effectively from the minor, unimportant picture-positioning request of the author, which was regarded as an incidental measure by which the author appraised the personality for the automatic writing. Thus an experimental atmosphere could be created safely. Glove anaesthesia, hypnotic and nonhypnotic, was another absorbing topic. So was the question of regression as a dream experience, or as one hypnotically induced.

As an additional check on this matter of intercommunication by subjects or spontaneous recollections and ruminations by both types of subject, indirect questioning and direct casual remarks proved to be non-provocative.

Also, post-experimental disclosure in full of the experiment served only to remind the subjects that they had actually acted as experimental waking subjects without realizing the importance of that fact at the time. Disclosure that there had also been hypnotic experimentation by other subjects did not serve to awaken memories of their own hypnotic participation. Even when they were told that they had participated hypnotically, they did not recall spontaneously their memories. Not until hypnotic suggestions by the author, and sometimes only hypnotic suggestions by his assistants who had done the work with them, were given, would there be a recollection, and then a genuine interest would be manifested. Repeatedly the strong impression was gained that when subjects were first used hypnotically, the posthypnotic amnesia suggested about their task performance would radiate to their waking state experience.

Such post-experimental hypnotic recall was induced in scores of subjects, only to have them disclose bewilderment at the peculiar positioning of the picture they had done. They could not explain this, and if they endeavored seriously to understand, they were decidedly likely to develop a spontaneous trance. In this trance they would reaffirm the "rightness" of the position. If this were definitely debated with them, they would obediently position the picture (since the trance invariably was a revivification of the original trance) on the wall in accord with arguments offered. As they would spontaneously (usually) slowly come out of the trance, they would have a waking memory of the trance positioning, but would offer a "corrective" waking state position. But they would still be unable to explain their trance-positioning of the picture. "It seemed to be all right then." This tended to be the most informative reply from about 150

subjects. Other replies were to the effect that "you see things differently in the trance," "Things get changed some way," "Things look different," and, "You just hang the picture the way things look, and it's right that way." Yet more than a score of subjects who were given a full post-experimental understanding of what they had done in both trance and waking states were used in another test to learn what positioning they would offer for actual landscape pictures. It was promptly learned that they would have to be tested first in the trance state, otherwise a waking state test first would be affected by their sophistication and this would carry over into a subsequent trance-state performance. But if they were tested first in the somnambulistic state, they would give a performance comparable to their response in the original experiment. Then, tested in the waking state, they would give a response in accord with their experimental waking state performance and expressed evidence of their sophistication.

If along, persistent, searching inquiry is made before a sophistication of the subjects, they may lose their ability to develop a trance; or they may simply refuse to discuss the matter further; or they may refuse to do any more hypnotic work. This author has lost a number of excellent subjects by questioning them too searchingly about hypnotic work. Some of these subjects, months or even years later, again became friendly with the author and would explain their previous withdrawal of friendship as a sensing of a feeling of being unwarrantably imposed upon by the author for work performances, a feeling of being "just plain worked to death," or a feeling that the author was questioning their personal integrity. The reestablishment of the original friendship could result in further hypnotic work well done, but a searching inquiry would again promptly be rejected, sometimes again with the feeling that the author was unjustly questioning the earnestness and honesty of their work.

One other experimental difficulty arising not out of the experiment itself as a procedure came from undue interest by some subjects in what work the experimenter was doing, in relation to other work as well as to this experiment. They would seek to discover what work was being done with them, and they would question various persons whom they thought possibly might know. These subjects numbered less than 50, and they were discarded for both waking and hypnotic experimentation. This same "busybody" trait was noted in other regards, and it always became apparent before the author concluded his studies with them in either state of awareness. Hence such subjects were avoided after a few experiences.

## **EXPERIMENTAL CONTROLS**

Originally it was intended to use 300 subjects, of whom 100 would be capable of developing a somnambulistic trance with the eyes open and of having posthypnotic amnesia. The experimental plan also included the use of assistant experimenters, some with knowledge of hypnosis, some without such knowledge, and some who could not recognize a somnambulistic trance state if the subjects were cued to conceal that fact and the assistant experimenter were limited in participation to the experiment itself. Some of the assistant experimenters were actually not known to the author, but their participation was monitored by others who knew what should be done. Sometimes they too were

monitored in their task of monitoring other assistants. Some assistants knew that an experiment was being conducted, some did not. Some assistants thought that the actual experiment was no more than a preliminary "passing of time" in preparation for some "actual experiment." In brief every possible control was employed on experimenters, but it became evident progressively that very few controls were necessary. These were primarily that the experimental question be asked or read as a simple posing of a question in which the questioner had only the interest of knowing the subject's response, which was passively and unconcernedly accepted.

Concerning the controls necessary for the experimental subjects, the need was first to recognize hypnotic subjects who are capable of developing somnambulistic states in which various hallucinatory behaviors and posthypnotic amnesia can develop. Experience since medical school days has progressively emphasized to the author that personal needs are strongly correlated with the intensity of the hypnotic state development. Also the personality structure is of importance. To illustrate, a school-dropout, cancer-afflicted patient with a history of poor occupational, economic, and social adjustments may develop a good somnambulistic trance equal to that of another cancer-afflicted school-dropout patient who is, however, occupationally, economically, and socially well-adjusted. They differ significantly in that the first type of patients do not continue to maintain within themselves the willingness to put forth their own effort in maintaining responsive hypnotic behavior, while those of the second type can and do maintain their own effort to benefit from therapeutic or palliative hypnotic suggestions.

This same significant fact is true of normal experimental hypnotic subjects. Many more somnambulistic subjects develop better and deeper somnambulistic states if some inner motivation can be given to them, a motivation experienced by the subjects as belonging to them and important to them and not recognized by the subjects as important to the operators. To illustrate, at an annual meeting of a society of anaesthesiologists at Newport Beach, California, in August, 1966, the author was asked to demonstrate various hypnotic phenomena on five subjects unknown to him personally. As the subjects came up to the foreground of the audience, the author said;

The girl in the white dress is to sit right there in the middle chair, and you sit right here in this chair, and you sit over there, and the girl in the white dress will sit right there in the middle chair, and you sit right there, and the girl in the white dress will sit right there in the middle chair, and you sit down own softly, gently, and you in the white dress just sit doing nothing. All you need to do is just sit there doing nothing, you do not need to see, to hear, not anything at all, just sit right there doing nothing at all, just sitting right there, and now I will go about my work while all of you sit in your chairs, even as the girl in the white dress sits in her chair, doing nothing at all until I ask her, and then she will do whatever needs to be done! And so will all of you as you sit softly, gently in your chair.

The above is not the verbatim wording, but it is the most informative possible for the reader since intonations, inflections, pauses, gestures, altered direction of gaze cannot be expressed in print. Redundant, repetitious, the wording of the statements made to them gave them some undefined, profound conviction that sitting in the designated chair was of great importance to them as persons. What that matter of personal importance to them

was, was not indicated in any way. They merely sensed that it was obligatory for them to experience it, while the author went about "my work." And the girl in the white dress, instructed to sit in the chair doing nothing, not needing to hear or see or do anything at all but sit in the chair until told otherwise, was employed without further delay to demonstrate a spontaneous somnambulistic state marked by a saddle-block anaesthesia.

## **VALIDITY OF HYPNOTIC EXPERIMENTAL RESULTS**

As every well-experienced psychotherapist knows, highly important and most extensive changes in a person's adjustments in life can be effected, even after failure of as much as seven years of rigid "orthodox" or "classical" psychoanalytical therapy six hours a week. There is no way of proving that a short period of psychotherapy employing hypnosis following prolonged psychoanalytic therapy did cause therapeutic result. Instead one can prove only that the previous seven years of psychotherapy had not yet effected the desired result. The only thing possible of proof is the time relationship. But long-continued psychiatric experience has disclosed many times that hypnotic psychotherapy has enabled psychotherapeutic results otherwise not achievable until hypnosis was employed.

This author knows of major surgery, including cholecystectomy, performed on patients in the somnambulistic state without any medication preoperatively or during the operation; and these patients made excellent and "uneventful" recoveries. While the author knows that this does not prove that an anaesthesia of the body tissues existed during the operation, he also does not know of any such operations done by choice on a patient who was in the ordinary waking state, nor does he know of any surgeons willing to do such surgery on a patient who is in the ordinary waking state, even though there are many physicians and dentists who willingly and successfully substitute hypnosis for drugs, sometimes in part, sometimes entirely, and with complete success.

In brief the validity of hypnotic trance states and hypnotic manifestations is not a matter of what the critics or questioners do not understand or want to understand in terms of their own choosing. The validity of hypnotic phenomena lies within the phenomena themselves, and is not to be measured by standards applicable to another category of phenomena. While both water and iron can be measured by a common standard of specific gravity, the floating of iron upon water depends upon the shape of the iron, and the shape cannot be given in terms of specific gravity, nor does it alter the specific gravity of either the water or the iron. Yet the shape relationships can keep iron from sinking in water, and the standards of measurement are of another type than those for measuring specific gravity. Science will ever be plagued by those who insist upon understanding that which they do not understand in terms of which they think they do understand.

That somnambulistic trance realities have a validity as genuine as the validity of waking state realities is not questioned by this author. He questions only what is the nature and character of that category of experimental behavior. He knows that dreams during sleep can be experienced as actualities which do not include the actuality of being sound asleep

in bed but, instead, of socializing, of flying a plane, or a myriad of other experiences that may be most pleasing or actually evocative of states of extreme terror. The author also has full respect for the hallucinatory experiences of mentally ill patients despite the absence of any discoverable physical basis. The author recalls his startling experience of dealing with a patient, diagnosed as having developed a sudden, inexplicable, acute state of catatonic schizophrenia, tell him with utter bitterness that she smelled "foul, putrid, rotting fish smells" and that people more than 20 miles away were "cursing" her and calling her "vile, despicable names." He was even more startled when she asked him to sit on her left side and secured, in response to his detailed inquiries, the explanation that she could "smell good smells" only in her left nostril and "hear good voices" only in her left ear. The author tentatively postulated a tumor in the olfactory area of the temporal lobe of the brain. The patient's sudden death and the autopsy that followed confirming the existence of a carcinomatous growth in the left temporal lobe served only to confirm that there was a basis in actuality for the patient's disturbed mental state and sudden death. But there was no explanation of her complaints of olfactory and auditory hallucinations, nor of her ability to identify odors correctly with her left nostril—but not at all with her right nostril when an eye dropper containing an aromatic fluid was carefully inserted. Nor did the autopsy findings explain why the patient would scream imprecations at the author accusing him of vile language when he spoke to her from the right, but would converse agreeably if complainingly when he spoke to her from the left.

Dreams, too, have long been recognized as valid, subjective experiential phenomena for which many theoretical explanations have been offered and sometimes even forcibly thrust upon those attempting to achieve an understanding of them. The author carefully recorded a dream of his in the early 1930s. In that dream he found himself to be an adult, and he had the valid knowledge that he was a psychiatrist at the Worcester State Hospital in Worcester, Massachusetts and that he had a limp caused by anterior poliomyelitis. He was standing on the north side of a country road in Wisconsin, watching a small barefooted boy climbing up and down a freshly made cut through a hillside where a new road was being graded. He watched the boy with interest; he knew that he could see the boy but that the boy could not see him; he was pleased with the boy's interest in the tree roots that had been cut in the grading of the hillside as a part of the grading of the road; he was pleased that the boy was interested in trying to determine which of the roots belonged to the white oak tree and which belonged to the chokecherry tree. The boy doubted that any of the roots belonged to the hazelnut bush which was east of the oak tree. The author knew all the thoughts and feelings of that little barefoot boy and approved of all of them. He was amused by the thought that the little boy had no realization that he would grow up and be a psychiatrist at the Worcester State Hospital.

Subsequently the author drove by automobile from Massachusetts to Wisconsin and sought out through the country highway department the year, location, and employees involved in grading various country roads. By this means he discovered that a road running east and west had been graded when he was eight years old, that a hillside had been cut through by the grading, that several of the workmen employed recalled that the "pesky Erickson kid always getting in the way and asking questions" had been present at the time of the grading, and that just behind a barbed wire fence, (not included in the

dream), at the top of the cut in the hillside, were from east to west, a hazelnut bush, a white oak tree, and a chokecherry tree, the latter two at least 50 years old. Yet the author has only his dream memories, those obtained by his investigation in the 1930s, and the statements from the workmen. Comparable accounts from many other persons indicate that the author's experience is far from unique and that comparable somnambulistic hypnotic trance-state experiences are of a similar order. For example, a national athletic champion recalls clearly having met the author in a casual social situation in a hotel more than 1,500 miles from Phoenix and, with amusement, describes the "probable appearance" of the kind of an office the author was "likely to have." The athlete is certain he was never in that office, does not believe that he ever developed a somnambulistic trance in that office, nor that he ever sought hypnotic aid because of difficulties he was experiencing in his particular athletic area. Yet the author's schedule book and his record files disclose that the national champion had sought hypnotic aid in overcoming certain difficulties in his participation in athletic endeavors and that a somnambulistic trance had been employed to correct his problem. This fact is included in his income tax return of that year, but so far as his subsequent waking states of awareness are concerned, he had merely met the author casually, far from Phoenix and only on a casual basis. This is not an uncommon experience so far as somnambulistic patients and subjects are concerned.

## **DISCUSSION OF THE RESULTS**

The actual experimental results obtained in the formal experiment were invariable and consistent in character. All 750 somnambulistic subjects gave cursory attention to the walls of the room and then hung the supposititious picture in a relationship to the object itself, with a disregard of the existing realities. Impossible spatial relationships of the walls, or even merely empty space, did not constitute any kind of difficulty. Uninfluenced by the experimenter, all of the somnambulistic subjects "hung" the picture described to them in direct relationship to the subject matter of the picture. The walls of the room, spatial areas, vantage points for viewing the supposed picture, lighting effects, had no significance for the task. The object which the picture represented was the only determining force.

Another item of marked significance, not expected and hence not provided for in the formal experiment, was the discovery that once the task was presented to them as a possible task, there was a marked tendency for the somnambulistic subjects to complete it and thereafter, when in a trance state, to see the picture as actually hanging in the selected place. Even as long as three years later a somnambulistic subject might be taken in a somnambulistic state into the room where he had previously entered only once to carry out the experiment and "see" the picture he had been asked about in the experiment. Yet he could enter the same room in the waking state and sense it as a first-time experience with no recollection of somnambulistic values.

None of the nonhypnotic subjects ever manifested comparable behavior. Even if they recognized the room as previously entered and recalled the task presented to them, it was in terms of, "Oh, this is the room where you asked me where I would hang some pictures," and they might again survey visually the wall spaces as offering possibilities.

Often they had forgotten the picture described to them—a matter of marked contrast to what the somnambulistic subjects did in “seeing” in the selected place for the hanging, the supposed pictures described in the stereotyped instructions given to them. Such surprising statements were often made by the hypnotic subjects as, pointing to the “picture” of the person known to them, “He has grown a mustache since I hung that picture of him there.”

Of great importance was the fact that without using words the experimenter could influence the behavior of the somnambulistic subjects very easily and usually unintentionally. An unbelieving, incredulous expression on the experimenter’s face, a glance at an actually suitable place, would suffice to cause the somnambulistic subjects to accept the unspoken but actual communication, however unintentional it might be. An example follows: Some of the author’s subjects were found to show results different from those of some other experimenters. These experimenters were then blindfolded and placed under guidance of someone unacquainted with the experiment who was asked to report upon what the subjects did when presented with the experimental question by the blindfolded experimenter. The same subjects and a different room were used, or sometimes the same room if it could be used unknown to the blindfolded experimenter. The results obtained and reported would then be in accord with those of less communicative experimenters. Repeated experiments employing blindfolded experimenters who merely asked the experimental question but who were guided to the experimental room by someone not in rapport with the experimental subject who was accompanying the experimenter yielded the same results as those secured by experimenters who limited communication only to the experimental question. Another variation was to have the experimental subjects out of rapport with the experimenters but able to hear a voice “coming from nowhere” posing a problem which was to be met by the subjects. In these instances, regardless of the communicativeness of the experimenters’ behavior, the subjects behavioral responses to the experimental question were in accord with those obtained by experimenters who controlled their own behavior in conducting the experiment. Another variation was employed by having the experimenters turn away from the subjects, ask the question for each of the four objects, and then turn around and ask the subjects to point out the places selected. None of these results obtained was then included as a part of the experimental results, even though they could quite rightly have been. The fact that they had been secured by a variation from the original experimental plan was considered proper grounds for exclusion.

However, these results did further confirm the experimental findings demonstrating that the realities of the somnambulistic hypnotic state are different from those of the waking state.

Recently (August, 1967) a college student and patient of the author remarked spontaneously, while in a trance state which had been induced by right-hand levitation:

"I know intellectually that that [pointing with his left hand] is my right arm. But right now all of my understandings and feelings tell me that it is not my right arm, that it is something alien, apart from me, different from me. It isn't even a part of me. It's something complete in itself, and I have no control over it because I don't

even feel that it is attached to me. It is just some alien thing that I can recognize as an arm, but not as my own arm. I know that if I were not in a deep hypnotic trance but just awake in the ordinary way, I would know that it was my arm, and I know that I couldn't think of it any way except as my own arm. But right now I can't even feel that it is any part of me. Not even knowing what I would know if I were consciously awake helps me to do anything except to look upon that thing as something completely alien to me."

Another example (September, 1966) is that of a college student called to the front of an audience of professionally trained people who developed a trance state most readily. During the trance state her left hand was lifted upward and slightly forward, with her elbow bent. She was aroused rather slowly so that the audience could question her before she was in full reality contact. She had her eyes open, demonstrated an amnesia for the trance induction, found herself at a loss to explain how it came about that she was awakening since she had not been "asleep," but what was interestingly puzzling to her was that she saw a hand in midair to the left and slightly in front of her. She wondered where the arm was to which, quite reasonably to her, the hand was attached, and she wondered to what person the arm belonged. At the time, to the audience of professionally trained men, she appeared to be in a state of ordinary waking consciousness, nor did she herself perceive any unusual state of affairs. She could see everybody, hear them, answer questions readily, and at the same time wonder why that hand was in midair, to whose arm it was attached, and why that person was holding the hand in such a fashion.

Wonderingly, she let her eyes' gaze extend from the hand, to the wrist, to the arm, still wondering about its identity. Suddenly she realized that it was her own arm, whereupon she lowered her arm to her side with no concern about not recognizing her hand as her own, nor her wrist, nor her arm, but accepting her sudden realization of the arm, wrist, and hand as her own as a simple matter of fact.

The above behavior is reminiscent of infants who see their own right hand as an interesting object and reach for it with that same right hand, only to be bewildered by the interesting object's apparent moving away. Thereupon the infants lean forward and make a more extensive reach for their right hand, only to experience again the unaccountable moving away of that interesting object for which they are reaching. A parallel can be drawn between those infants who have not yet learned the realities of life and the putting aside of learned realities that can be observed as an entirely spontaneous manifestation in the hypnotic trance, most clearly so in the somnambulistic state.

## **FURTHER EXAMPLES**

Since the completion of the original experiment, the author has given hundreds of lectures and demonstrations of hypnosis throughout the United States, in Canada, Mexico, and Venezuela, as well as conducting a private practice in psychiatry emphasizing psychotherapy and the use of hypnosis. Repeatedly, in first-time meetings, the author has seen somnambulistic trances in volunteer subjects and patients wherein hypnotized people have perceived their reality surroundings in a manner entirely foreign

to actualities but most real to themselves. He has had volunteer subjects demonstrate hypnosis to a medical audience and have them develop visual and auditory hallucinations, and then has discovered that members of the audience, never before experiencing hypnosis, have gone into a trance, taking issue with the subject on the speaker's platform concerning the identity of the volunteer subject's hallucinations because they, too, had developed somnambulistic trance states and also hallucinations but quite differently than had the actual subject. Additionally there were volunteered explanations by them to the effect that they had in some manner left the reality world in which they could be identified as members of the audience and had entered another world of reality belong only to their own personal life experiences. A most striking and thought-provoking unpublished example is that of a somnambulistic subject used in the teaching of medical group in Phoenix, Arizona, some years ago. She was in full rapport with the entire group so that she could answer questions put to her by any member of the group. At one point the author elaborated on the nature of suggestions most likely to produce hypnoanaesthesia. At the conclusion of his discussion he called the subject by name, and she replied, "Oh, excuse me. I've just come back from a swim in the lake at the camp in Maine where I used to go when I was a little girl. It was so delightful—the water was just right and it felt so good, [stretching her arms and legs]. The lack of humidity here in Phoenix certainly has dried my hair fast [feeling it]. What do you want to ask me about?" The author immediately raised questions about other events of the session to prevent the group from intruding upon this remarkable statement. Shortly thereafter she was asked to listen, still in the trance state, to the tape recording of the more recent part of the evening's discussion. At the conclusion of her spontaneous remarks about taking a swim in Maine that tape recorder was stopped and a second tape recorder was started unobtrusively. Without being questioned, but apparently stimulated by the turning off of that first tape recorder, she stated very simply, "I believe that the last time I went to that camp I was only 15. Sometimes the water was rough and cold, and of course we were never allowed to swim at night nor to go alone. But tonight's swim was just perfect in every way." She was asked how far she swam. She answered, "Oh, I even swam way out beyond the raft. Then I came back and sat on the log there on the shore, looking at the reflection of the moon in the water." She was asked what bathing suit she wore. Her reply was given most thoughtfully, "I don't remember, but I'm sure I was wearing one because I have never gone swimming in the nude even though I have wanted to."

The conversation was immediately changed by the author to other matters to prevent the other members of the group from intruding upon this entire item of the subjective experience of that hypnotic subject.

Later she was awakened with a spontaneous amnesia—that is, an amnesia in no way known to be suggested by the author or others of the group. She was thanked for her help, whereupon she laughed, stating that if she had been of help, she certainly knew nothing about what she had done. She was asked if she recalled having developed anaesthesia or catalepsy. Her reply was that if she had done so, she was now manifesting an amnesia, since she could remember nothing, "Not even the passage of time, since I was so surprised when I looked at the clock."

She was asked if she would like to listen to a part of the tape recording for that evening. She stated that she would, and the first tape recorder was started at a point about 15 minutes previous to her statement about swimming. At the same time the second tape recorder was started.

She listened attentively, interjected various pertinent comments expressive of astonishment, interest, and bewilderment. However, upon hearing her statement about swimming in Maine, she laughed with much amusement, declaring, "That's so completely ridiculous that it just doesn't make sense. How could anybody possibly say something like that, even in a trance. The whole thing just isn't real, and yet I know that's my own voice speaking. I just can't understand such a thing because I never try to fool myself or anybody else. I just don't understand. It's too complex for me, and it would give me a headache to try to make sense out of it."

At this point the first tape recorder was turned off and the second one was adjusted for a replay. This did not astonish her, since she knew that even four or five tape recorders had been employed variously at previous teaching situations.

She was, however, greatly astonished to hear her voice elaborating still further upon that swimming experience, followed by the additional recording of further discussion of hypnosis. Then there followed the instructions for her to awaken, the general conversation, and then the playback of the first recorder. She was decidedly startled as she listened to her waking state comments on her first comments on her swimming. She listened most attentively, and at the conclusion of the recording she declared,

I know as an absolute fact that I didn't go swimming in the lake in Maine. That is true, it has to be true. But when I hear my voice telling about it now, I know inside me that I really did go swimming. The first time when I listened to that other tape recorder, I was just listening to the words and ideas, but when I started listening to the second tape recorder, I heard what I said and I felt my feelings at the same time. Now, to me, in my own feelings, I did not go swimming and I did too go swimming. I know those two thoughts are contradictory when I try to compare them. But when I look at just one set of ideas, I know it is true. Then when I look at the other set, I know equally well that it is true. It's like being in two different worlds of understanding and feeling. But I just want to leave them that way. I don't have any desire or even wish to fit them together. I'm just willing to be in Phoenix and willing to talk to you about being a camp in Maine. But if you put me in a deep trance, I know that I can be anywhere I want to be and the real place where I am won't interfere at all. The way I mean all of that is that I could go swimming in Maine with complete enjoyment and at the same time I could stay in Phoenix and be able to answer all your questions or do anything that you wished without its interfering with the whole experience of swimming. It's like something I often do. I sleep soundly and restfully all night, but I can wake up still tasting that trout I caught in my dream and so happily dressed and cooked and ate with pleasure. But I'm hungry for breakfast in spite of all the trout I dreamed I ate and still taste.

This is but one of many comparable accounts the author has been given spontaneously by simply creating a favorable situation for such communication. The very first such communication was received when the author was an undergraduate student at the University of Wisconsin. At that time he asked one of his experimental subjects, "Considering all the time you give me for hypnotic experimentation and the time you spend on the football field, how do you manage to keep up your grades?" The astounding reply given was, "That's easy. When I'm out practicing on the football field doing the things that I could be doing there, I just mentally lean back comfortably in my chair and review everything I have already read. The only time I have to get out of that mental chair is when I'm making a run and carrying the ball. But I return to the chair if I'm stopped or if I make a completed run."

Thirty years later a chance encounter with this former student, then a full professor of history, led to reminiscences of their former relationships as fellow students. During this he was asked about "leaning back mentally in a comfortable chair" while engaged in football games. He replied that he had continued that same practice but in a different way. For example, while delivering a lecture, he might "lean back in a chair in the den at home" and review previous lectures to determine the appropriate questions for the next test or final examination that he would give. He stated that this practice made his teaching much more interesting, more efficient, and much less laborious. He also utilized the practice in other activities but had very early learned that this was an item of experience he could discuss with very few people because of the general tendency of people to look upon such statements with misunderstanding and disfavor. However, he had encountered a few psychologists, some psychiatrists, and several well-established writers who were genuinely interested in this type of phenomenon as something of scientific interest and even as something of possible value to themselves. He also declared that in his study of history the course of historical events seemed often to have been a result of an unconscious appraisal of past events, a singling out of certain generally unrecognized, seemingly insignificant items of past occurrence, and a devising of a course of action by the leader who achieved the goal reached.

## **PURPOSE OF STUDY**

The purpose of the study reported here is not that of defining or evaluating or measuring hypnotic realities. Rather its purpose is to discover if an appreciable number of somnambulistic hypnotic subjects could react to their hypnotic state in such fashion that their experience of physical realities could be contrasted to the waking subjects' awareness of physical realities. During the course of this study the author encountered many different kinds of hypnotic realities, such as the reestablishment of the location of a subject's first hypnotic trance, which became manifest in a trance 15 years later, and an encounter with a somnambulist who found himself in space and identified the operator only as a pleasant stranger. Some somnambulistic subjects effect rapport with anyone present, not realizing that they are in a trance, but easily transforming the reality situation, for example, into a restaurant, where they listen to music and have the inner experience of eating but with no physical evidence that they are eating or even making of movements suggestive of it. Some somnambulistic hypnotic subjects regress to a time

when they wished to do certain things, and they experience themselves doing it. For example one subject created a problem during an experiment, other than the one reported here, by developing a somnambulistic trance, but he was always found to be in a theater watching the move, *Gone with the Wind*. He had seen it once, and he regretted that he had not gone back and seen it twice. Repeatedly over a four-year period this college graduate was used as a subject who readily developed a somnambulistic trance, and he hushed the author, explaining that he was enjoying the second viewing of *Gone with the Wind*, and it always became necessary for the author to suggest a mechanical breakdown of the projector so that the subject would leave the theater and perform in accord with the experimental design.

The author has described these various manifestations to elucidate the purpose of this study, which was to discover if there were a kind of hypnotic reality wherein a simple experimental question could be asked which could direct the subject's attention to the surrounding realities in the same fashion as the waking subject and to discover if there was an appreciable number of such subjects. This author does not know how to measure and how to define what happens to the physical realities that the hypnotic subject can see as clearly as the waking subject and yet make responses in terms of hypnotic realities.

In evaluating the experiments here described and in planning their possible replication, a certain precaution must be kept in mind. This is the fact that the realities to which the somnambulistic subjects relate may not correspond with the objective reality situation, and may or may not correspond with previous somnambulistic trance experiences, if any, which the subjects have had. These unusual orientations may be completely spontaneous on the part of the subjects and if the experimenter is unaware of that possibility, he may continue the experimentation not realizing that a new element has been introduced. Some subjects have been known to orient themselves spontaneously to the laboratory, to the classroom, or to any other location in which their first hypnotic experience took place, others to the location in which their first somnambulistic trance developed. Some subjects orient themselves to actual objective reality but may not recognize the location. It may remain a new and unknown experience or it may be misidentified. Not only does this relocation in place sometimes develop unexpectedly, but subjects may reorient themselves spontaneously in time. This commonly is a reorientation to the time of a previous trance state; however, subjects have been known to regress to an earlier time period, which may even be the childhood of the subject. Thus one subject always initiated the somnambulistic trance by a reorientation to a peaceful New England rural environment where an old, picturesque grist mill was located. Another subject spontaneously located himself on a seashore on which he had passed many pleasant hours. The experimenter may spontaneously be recognized as he actually is, being adopted into a scene in his own identity, or he may be identified as some previously known person, or perhaps as a character whose intrusion upon the scene would be natural and acceptable.

Only those subjects were used in the experimental work who either spontaneously oriented to the room in which the actual setting of the experiment was taking place, or

who suspended recognition and realization of the location until guided by the information supplied by the experimenter.

### **NOT A TEST OF SIMULATION**

In view of the uniformly consistent results obtained in this experimental work, the reader might reach the conclusion that a reliable test for the detection of simulation has been devised. It must be emphasized that this experiment was not designed or devised to be considered as meeting in any way the criteria for a test for the existence of a state of hypnosis.

Whereas the experimenter believes, and the results confirm, that hypnotic subjects behave in a basically different manner from waking subjects, false and misleading results could ensue if the procedure here described were used as a definitive test for the detection of simulation. Sophisticated subjects would certainly find no insuperable difficulty in imitating a hypnotic response, once they were aware of the nature of that response. The purpose of this work has not been to construct a test for simulation but to investigate the apprehension of reality in the states of consciousness known as the "hypnotic state" and the "waking state."

### **SUMMARY**

The original experiment was intended to determine if external reality was apprehended differently in the somnambulistic hypnotic state than it was in the ordinary state of conscious awareness. It was based upon a procedure in which a definite task could be assigned to the subjects in either the waking or the somnambulistic state, with the nature of the assignment placing all responsibility for performance upon the subjects themselves. It was believed that the experimental task performance had to be one in which any wishes, hopes, expectations, or desires on the part of the experimenters would have no influence upon the subjects' responses. The experiment was devised so that the subjects' performances would have to be in their terms of evaluation of reality values as they themselves perceived the realities without even being made aware of that fact. The somnambulistic hypnotic subjects were to be tested by random selection, half in the waking state first, half in the somnambulistic state first.

As first planned, 300 subjects were to be used, of whom a third would be chosen because of a known capacity to develop somnambulistic hypnotic states. A fortunate series of events led to an increase of the number of subjects from 300 to over 2,000 and the number of somnambulistic hypnotic subjects to over 750. This of course led to an extension of the length of time required to complete the experiment. This in turn led to the opportunity to enlist the aid of variously sophisticated assistant experimenters. These were used as controls upon each other and upon the author himself as well as upon the separate identifications of environmental realities for subjects in both the ordinary state of conscious awareness and the state of hypnotic somnambulism.

Also, the extended period of time permitted retests of many subjects, especially those first used only as waking state subjects. Additionally the extended period of time permitted control tests on subjects as much as three years later and retests by different assistants to determine the reliability of the first-time results.

Clinical work and the teaching of hypnosis to professionally trained audiences gave additional opportunities for unexpected spontaneous manifestations of behavior fully comparable to that elicited under the planned experimental conditions as well as the intentional utilization of a teaching situation to effect meaningful behavior comparable or actually equivalent to the experimental results obtained in the experiment itself.

The reporting of the experimental findings was delayed for an extended period of time because of the continued accumulation of comparable instances of behavior in other situations, and it was hoped to discover some understandable definition of that behavior.

As a final statement, after extensive experimental work aided by independent work of others employing the author's procedures, and the findings achieved over the years in teaching and clinical situations, this author feels that a somnambulistic hypnotic subject spontaneously apprehends the surrounding environment of realities differently than does a subject in the ordinary state of waking consciousness, and that the one type of reality apprehension does not preclude the other type of reality apprehension.

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# **A Special Inquiry with Aldous Huxley into the Nature and Character of Various States of Consciousness**

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## ***INTRODUCTION***

Over a period of nearly a year much time was spent by Aldous Huxley and the author, each planning separately for a joint inquiry into various states of psychological awareness. Special inquiries, possible methods of experimental approach, and investigations and various questions to be propounded were listed by each of us in our respective loose-leaf notebooks. The purpose was to prepare a general background for the proposed joint study, with this general background reflecting the thinking of both of us uninfluenced by another. It was hoped in this way to secure the widest possible coverage of ideas by such separate outlines prepared from the markedly different backgrounds of understanding that the two of us possessed.

Early in 1950 we met in Huxley's home in Los Angeles, there to spend an intensive day appraising the ideas recorded in our separate notebooks and to engage in any experimental inquiries that seemed feasible. I was particularly interested in Huxley's approach to psychological problems, his method of thinking, and his own unique use of his unconscious mind, which we had discussed only briefly sometime previously. Huxley was particularly interested in hypnosis, and previous exceedingly brief work with him had demonstrated his excellent competence as a deep somnambulistic subject.

It was realized that this meeting would be a preliminary or pilot study, and this was discussed by both of us. Hence we planned to make it as comprehensive and inclusive as possible without undue emphasis upon completion of any one particular item. Once the day's work had been evaluated, plans could then be made for future meetings and specific studies. Additionally we each had our individual purposes-Aldous having in mind future literary work, while my interest related to future psychological experimentation in the field of hypnosis.

The day's work began at 8:00 a.m. and remained uninterrupted until 6:00 p.m. with some considerable review of our notebooks the next day to establish their general agreement, to remove any lack of clarity of meaning caused by the abbreviated notations we had entered into them during the previous day's work, and to correct any oversights. On the whole we found that our notebooks were reasonably in agreement, but that naturally certain of our entries were reflective of our special interests and of the fact that each of us had, by the nature of the situation, made separate notations bearing upon each other.

Our plan was to leave these notebooks with Huxley, since his phenomenal memory, often appearing to be total recall, and his superior literary ability would permit a more satisfactory writing of a joint article based upon our discussions and experimentations of that day's work. However, I did abstract from my notebook certain pages bearing notations upon Huxley's behavior at times when he, as an experimental subject, was unable to make comprehensive notations on himself, although post-experimentally he could and did do so, though less completely than I had. It was proposed that from these certain special pages I was to endeavor to develop an article which could be incorporated later in the longer study that Huxley was to write. Accordingly I abstracted a certain number of pages, intending to secure still more at a later date. These pages that I did remove Huxley rapidly copied into his own notebook to be sure of the completeness of his data.

Unfortunately a California brushfire later destroyed Huxley's home, his extensive library containing many rare volumes and manuscripts, besides numerous other treasures to say nothing of the manuscripts upon which Huxley was currently working as well as the respective notebooks of our special joint study. As a result the entire subject matter of our project was dropped as a topic too painful to discuss, but Huxley's recent death led to my perusal of these relatively few pages I had abstracted from my notebook. Examination of them suggested the possibility of presenting to the reader a small but informative part of that day's work. In this regard the reader must bear in mind that the quotations attributed to Huxley are not necessarily verbatim, since his more extensive utterances were noted in abbreviated form. However, in the essence of their meaning they are correct, and they are expressive of Huxley as I knew him. It is also to be borne in mind that Huxley had read my notations on the occasion of our joint study and had approved them.

## **PROJECT INITIATION**

The project began with Huxley reviewing concepts and definitions of conscious awareness, primarily his and in part those of others, followed by a discussion with me of his understandings of hypnotic states of awareness. The purpose was to insure that we were both in accord or clear in our divergences of understanding, thus to make possible a more reliable inquiry into the subject matter of our interest.

There followed then a review in extensive detail of various of his psychedelic experiences with mescaline, later to be recorded in his book (*The Doors of Perception*. New York: Harper, 1954).

Huxley then proceeded with a detailed description of his very special practice of what he, for want of a better and less awkward term which he had not yet settled upon, called "Deep Reflection." He described this state (the author's description is not complete, since there seemed to be no good reason except interest for making full notations of his description) of Deep Reflection as one marked by physical relaxation with bowed head and closed eyes, a profound, progressive, psychological withdrawal from externalities but without any actual loss of physical realities nor any amnesias or loss of orientation, a

“setting aside” of everything not pertinent, and then a state of complete mental absorption in matters of interest to him. Yet in that state of complete withdrawal and mental absorption Huxley stated that he was free to pick up a fresh pencil to replace a dulled one, to make notations on his thoughts “automatically,” and to do all this without a recognizable realization on his part of what physical act he was performing. It was as if the physical act were “not an integral part of my thinking.” In no way did such physical activity seem to impinge upon, to slow, or to impede “the train of thought so exclusively occupying my interest. It is associated but completely peripheral activity . . . I might say activity barely contiguous to the periphery.” To illustrate further Huxley cited an instance of another type of physical activity. He recalled having been in a state of Deep Reflection one day when his wife was shopping. He did not recall what thoughts or ideas he was examining, but he did recall that, when his wife returned that day, she had asked him if he had made a note of the special message she had given him over the telephone. He had been bewildered by her inquiry, could not recall anything about answering the telephone as his wife asserted, but together they found the special message recorded on a pad beside the telephone, which was placed within comfortable reaching distance from the chair in which he liked to develop Deep Reflection. Both he and his wife reached the conclusion that he had been in a state of Deep Reflection at the time of the telephone call, had lifted the receiver, and had said to her as usual, “I say there, hello,” had listened to the message, had recorded it, all without any subsequent recollections of the experience. He recalled merely that he had been working on a manuscript that afternoon, one that had been absorbing all of his interest. He explained that it was quite common for him to initiate a day’s work by entering a state of Deep Reflection as a preliminary process of marshalling his thoughts and putting into order the thinking that would enter into his writing later that day.

As still another illustrative incident Huxley cited an occasion when his wife returned home from a brief absence, found the door locked as was customary, entered the house, and discovered in plain view a special delivery letter on a hallway table reserved for mail, special messages, etc. She had found Huxley sitting quietly in his special chair, obviously in a state of deep thought. Later that day she had inquired about the time of arrival of the special delivery letter, only to learn that he had obviously no recollection of receiving any letter. Yet both knew that the mailman had undoubtedly rung the doorbell, that Huxley had heard the bell, had interrupted whatever he was doing, had gone to the door, opened it, received the letter, closed the door, placed the letter in its proper place, and returned to the chair where she had found him.

Both of these two special events had occurred fairly recently. He recalled them only as incidents related to him by his wife but with no feeling that those accounts constituted a description of actual meaningful physical behavior on his part. So far as he knew, he could only deduce that he must have been in a state of Deep Reflection when they occurred.

His wife subsequently confirmed the assumption that his behavior had been completely “automatic, like a machine moving precisely and accurately. It is a delightful pleasure to see him get a book out of the bookcase, sit down again, open the book slowly, pick up his

reading glass, read a little, and then lay the book and glass aside. Then some time later, maybe a few days, he will notice the book and ask about it. The man just never remembers what he does or what he thinks about when he sits in that chair. All of a sudden you just find him in his study working very hard.”

In other words, while in a state of Deep Reflection and seemingly totally withdrawn from external realities, the integrity of the task being done in that mental state was touched by external stimuli, but some peripheral part of awareness made it possible for him to receive external stimuli, to respond meaningfully to them but with no apparent recording of any memory of either the stimulus or his meaningful and adequate response. Inquiry of his wife later had disclosed that when she was at home, Aldous in a state of Deep Reflection paid no attention to the telephone, which might be beside him, or the doorbell. “He simply depends completely on me, but I can call out to him that I’ll be away and he never fails to hear the telephone or the doorbell.”

Huxley explained that he believed he could develop a state of Deep Reflection in about five minutes, but that in doing so he “simply cast aside all anchors” of any type of awareness. Just what he meant and sensed he could not describe. “It is a subjective experience quite” in which he apparently achieved a state of “orderly mental arrangement” permitting an orderly free flowing of his thoughts as he wrote. This was his final explanation. He had never considered any analysis of exactly what his Deep Reflection was, nor did he feel that he could analyze it, but he offered to attempt it as an experimental investigation for the day. It was promptly learned that as he began to absorb himself in his thoughts to achieve a state of Deep Reflection, he did indeed “cast off all anchors” and appeared to be completely out of touch with everything. On this attempt to experience subjectively and to remember the processes of entering into Deep Reflection, he developed the state within five minutes and emerged from it within two, as closely as I could determine. His comment was, “I say, I’m deucedly sorry. I suddenly found myself all prepared to work with nothing to do, and I realized I had better come out of it.” That was all the information he could offer. For the next attempt a signal to be given by me was agreed upon as a signal for him to “come out of it.” A second attempt was made as easily as the first. Huxley sat quietly for some minutes, and the agreed-upon signal was given. Huxley’s account was, “I found myself just waiting for something. I did not know what. It was just a ‘something’ that I seemed to feel would come in what seemed to be a timeless, spaceless void. I say, that’s the first time I noted that feeling. Always I’ve had some thinking to do. But this time I seemed to have no work in hand. I was just completely disinterested, indifferent, just waiting for something, and then I felt a need to come out of it. I say, did you give me the signal?”

Inquiry disclosed that he had no apparent memory of the stimulus being given. He had had only the “feeling” that it was time to “come out of it.”

Several more repetitions yielded similar results. A sense of a timeless, spaceless void, a placid, comfortable awaiting for an undefined “something,” and a comfortable need to return to ordinary conscious awareness constituted the understandings achieved. Huxley summarized his findings briefly as “a total absence of everything on the way there and on

the way back and an expected meaningless something for which one awaits in a state of Nirvana since there is nothing more to do.” He asserted his intention to make a later intensive study of this practice he found so useful in his writing.

Further experiments were done after Huxley had explained that he could enter the state of deep reflection with the simple undefined understanding that he would respond to any “significant stimulus.” Without informing him of my intentions, I asked him to “arouse” (this term is my own) when three taps of a pencil on a chair were given in close succession. He entered the state of reflection readily, and after a brief wait I tapped the table with a pencil in varying fashions at distinct but irregular intervals. Thus I tapped once, paused, then twice in rapid succession, paused, tapped once, paused, tapped four times in rapid succession, paused, then five times in rapid succession. Numerous variations were tried but with an avoidance of the agreed-upon signal. A chair was knocked over with a crash while four taps were given. Not until the specified three taps were given did he make any response. His arousal occurred slowly with almost an immediate response to the signal. Huxley was questioned about his subjective experiences. He explained simply that they had been the same as previously with one exception, namely that several times he had a vague sensation that “something was coming,” but he knew not what. He had no awareness of what had been done.

Further experimentation was done in which he was asked to enter Deep Reflection and to sense color, a prearranged signal for arousing being that of a handshake of his right hand. He complied readily, and when I judged that he was fully absorbed in his state of reflection, I shook his left hand vigorously, then followed this with a hard pinching of the back of both hands that left deep fingernail markings. Huxley made no response to this physical stimulation, although his eyes were watched for possible eyeball movements under the lids, and his respiratory and pulse rates were checked for any changes. However, after about a minute he slowly drew his arms back along the arms of the chair where he had placed them before beginning his reflection state. They moved slowly about an inch, and then all movement ceased. He was aroused easily and comfortably at the designated signal.

His subjective report was simply that he had “lost” himself in a “sea of color, “ of “sensing,” “feeling,” “being” color, of being “quite utterly involved in it with no identity of your own, you know.” Then suddenly he had experienced a process of losing that color in a “meaningless void,” only to open his eyes and to realize that he had “come out of it.”

He remembered the agreed-upon stimulus but did not recall if it had been given. “I can only deduce it was given from the fact that I’m out of it,” and indirect questioning disclosed no memories of the other physical stimuli administered. Neither was there an absent-minded looking at nor rubbing of the backs of his hands.

This same procedure in relation to color was repeated but to it was added, as he seemed to be reaching the state of deep reflection, a repeated, insistent urging that upon arousal he discuss a certain book which was carefully placed in full view. The results were comparable to the preceding findings. He became “lost,” . . . “quite utterly involved in

it," . . . "one can sense it but not describe it," . . . "I say, it's an utterly amazing, fascinating state of finding yourself a pleasant part of an endless vista of color that is soft and gentle and yielding and all-absorbing. Utterly extraordinary, most extraordinary." He had no recollection of my verbal insistences nor of the other physical stimuli. He remembered the agreed-upon signal but did not know if it had been given. He found himself only in a position of assuming that it had been given since he was again in a state of ordinary awareness. The presence of the book meant nothing to him. One added statement was that entering a state of Deep Reflection by absorbing himself in a sense of color was in a fashion comparable to, but not identical with, his psychedelic experiences.

As a final inquiry Huxley was asked to enter the reflection state for the purpose of recalling the telephone call and the special-delivery letter incidents. His comment was that such a project should be "quite fruitful." Despite repeated efforts he would "come out of it," explaining, "There I found myself without anything to do, so I came out of it." His memories were limited to the accounts given to him by his wife, and all details were associated with her and not with any inner feelings of experience on his part.

A final effort was made to discover whether or not Huxley could include another person in his state of Deep Reflection. This idea interested him at once, and it was suggested that he enter the reflection state to review some of his psychedelic experiences. This he did in a most intriguing fashion. As the reflection state developed, Huxley in an utterly detached dissociated fashion began making fragmentary remarks, chiefly in the form of self-addressed comments. Thus he would say, making fragmentary notes with a pencil and paper quickly supplied to him, "most extraordinary . . . I overlooked that . . . How? . . . Strange I should have forgotten that [making a notation] . . . fascinating how different it appears . . . I must look. . . ."

When he aroused, he had a vague recollection of having reviewed a previous psychedelic experience, but what he had experienced then or on the immediate occasion he could not recall. Nor did he recall speaking aloud or making notations. When shown these, he found that they were so poorly written that they could not be read. I read mine to him without eliciting any memory traces.

A repetition yielded similar results, with one exception. This was an amazed expression of complete astonishment by Huxley suddenly declaring, "I say, Milton, this is quite utterly amazing, most extraordinary. I use Deep Reflection to summon my memories, to put into order all of my thinking, to explore the range, the extent of my mental existence, but I do it solely to let those realizations, the thinking, the understandings, the memories seep into the work I'm planning to do without my conscious awareness of them. Fascinating . . . never stopped to realize that my Deep Reflection always preceded a period of intensive work wherein I was completely absorbed . . . I say, no wonder I have an amnesia."

Later, when we were examining each other's notebooks, Huxley manifested intense amazement and bewilderment at what I had recorded about the physical stimuli for which he had no memory of any sort. He knew that he had gone into Deep Reflection repeatedly

at my request, had been both pleased and amazed at his subjective feelings of being lost in an all-absorbing sea of color, had sensed a certain timelessness and spacelessness, and had experienced a comfortable feeling of something meaningful about to happen. He reread my notations repeatedly in an endeavor to develop some kind of a feeling or at least a vague memory of subjective awareness of the various physical stimuli I had given him. He also looked at the backs of his hands to see the pinch marks, but they had vanished. His final comment was, ". . . extraordinary, most extraordinary, I say, utterly fascinating."

When we agreed that at least for the while further inquiry into Deep Reflection might be postponed until later, Huxley declared again that his sudden realization of how much he had used it and how little he knew about it made him resolve to investigate much further into his Deep Reflection. The manner and means by which he achieved it, how it constituted a form of preparation for absorbing himself in his writing, and in what way it caused him to lose unnecessary contact with reality were all problems of much interest to him.

Huxley then suggested that an investigation be made of hypnotic states of awareness by employing him as a subject. He asked permission to be allowed to interrupt his trance states at will for purposes of discussion. This was in full accord with my own wishes.

He asked that first a light trance be induced, perhaps repeatedly, to permit an exploration of his subjective experiences. Since he had briefly been a somnambulistic subject previously, he was carefully assured that this fact could serve to make him feel confident in arresting his trance states at any level he wished. He did not recognize this as a simple direct hypnotic suggestion. In reading my notebook later he was much amused at how easily he had accepted an obvious suggestion without recognizing its character at the time.

He found several repetitions of the light trance interesting but "too easily conceptualized." It is, he explained, "A simple withdrawal of interest from the outside to the inside." That is, one gives less and less attention to externalities and directs more and more attention to inner subjective sensations. Externalities become increasingly fainter and more obscure, inner subjective feelings more satisfying until a state of balance exists. In this state of balance he had the feeling that with motivation he could "reach out and seize upon reality," that there is a definite retention of a grasp upon external reality but with no motivation to deal with it. Neither did he feel a desire to deepen the trance. No particular change in this state of balance seemed necessary, and he noted that a feeling of contentment and relaxation accompanied it. He wondered if others experienced the same subjective reactions.

Huxley requested that the light trance be induced by a great variety of techniques, some of them nonverbal. The results in each instance, Huxley felt strongly, were dependent entirely upon his mental set. He found that he could accept "drifting along" (my phrase) in a light trance, receptive of suggestions involving primarily responses at a subjective level only. He found that an effort to behave in direct relationship to the physical

environment taxed his efforts and made him desire either to arouse from the trance or to go still deeper. He also on his own initiative set up his own problems to test his trance states. Thus before entering the light trance he would privately resolve to discuss a certain topic, relevant or irrelevant, with me at the earliest possible time or even at a fairly remote time. In such instances Huxley found such unexpressed desires deleterious to the maintenance of the trance. Similarly any effort to include an item of reality not pertinent to his sense of subjective satisfaction lessened the trance.

At all times there persisted a “dim but ready” awareness that one could alter the state of awareness at will. Huxley, like others with whom I have done similar studies, felt an intense desire to explore his sense of subjective comfort and satisfaction but immediately realized that this would lead to a deeper trance state.

When Huxley was asked to formulate understandings of the means he could employ by which he could avoid going into more than a light trance, he stated that he did this by setting a given length of time during which he would remain in a light trance. This had the effect of making him more strongly aware that at any moment he could “reach out and seize external reality” and that his sense of subjective comfort and ease decreased. Discussion of this and repeated experimentation disclosed that carefully worded suggestions serving to emphasize the availability of external reality and to enhance subjective comfort could serve to deepen the trance, even though Huxley was fully cognizant of what was being said and why. Similar results have been obtained with other highly intelligent subjects.

In experimenting with medium-deep trances Huxley, like other subjects with whom I have worked, experienced much more difficulty in reacting to and maintaining a fairly constant trance level. He found that he had a subjective need to go deeper in the trance and an intellectual need to stay at the medium level. The result was that he found himself repeatedly “reaching out for awareness” of his environment, and this would initiate a light trance. He would then direct his attention to subjective comfort and find himself developing a deep trance. Finally, after repeated experiments, he was given both posthypnotic and direct hypnotic suggestion to remain in a medium deep trance. This he found he could do with very little concern. He described the medium trance as primarily characterized by a most pleasing subjective sense of comfort and a vague, dim, faulty awareness that there was an external reality for which he felt a need for considerable motivation to be able to examine it. However, if he attempted to examine even a single item of reality for its intrinsic value, the trance would immediately become increasingly lighter. On the other hand, when he examined an item of external reality for subjective values—for example the soft comfort of the chair cushions as contrasted to the intrinsic quiet of the room—the trance became deeper. But both light and deep trances were characterized by a need to sense external reality in some manner, not necessarily clearly but nevertheless to retain some recognizable awareness of it.

For both types of trance experiments were carried out to discover what hypnotic phenomena could be elicited in both light and medium-deep trances. This same experiment has been done with other good subjects, with subjects who consistently

developed only a light trance, and with those who consistently did not seem to be able to go further than the medium trance. In all such studies the findings were the same, the most important seeming to be the need of light- and medium-deep hypnotic subjects to retain at least some grasp upon external reality and to orient their trance state as a state apart from external reality—but with the orientation to such reality, however tenuous in character, sensed as available for immediate utilization by the subject.

Another item which Huxley discovered by his own efforts, and of which I was fully aware through work with other subjects, was that the phenomena of deep hypnosis can be developed in both the light and the medium trances. Huxley, having observed deep hypnosis, wondered about the possibility of developing hallucinatory phenomena in the light trance. He attempted this by the measure of enjoying his subjective state of physical comfort and adding to it an additional subjective quality—namely, a pleasant gustatory sensation. He found it quite easy to hallucinate vividly various taste sensations while wondering vaguely what I would think if I knew what he were doing. He was not aware of his increased swallowing when he did this. From gustatory sensations he branched out to olfactory hallucinations both pleasant and unpleasant. He did not realize the he betrayed this by the flaring of his nostrils. His thinking at the time, so he subsequently explained, was that he had the “feeling” that hallucinations of a completely “inner type of process”—that is, occurring within the body itself—would be easier than those in which the hallucination appeared to be external to the body. From olfactory hallucinations he progressed to kinesthetic, proprioceptive, and finally tactile sensations. In the kinesthetic hallucinatory sensation experience he hallucinated taking a long walk but remained constantly aware that I was present in some vaguely sensed room. Momentarily he would forget about me, and his hallucinated walking would become most vivid. He recognized this as an indication of the momentary development of a deeper trance state, which he felt obligated to remember to report to me during the discussion after his arousal. He was not aware of respiratory and pulse changes during the hallucinatory walk.

When he first tried for visual and auditory hallucinations, he found them much more difficult, and the effort tended to lighten and to abolish his trance state. He finally reasoned that if he could hallucinate rhythmical movements of his body, he could then “attach” an auditory hallucination to this hallucinated body sensation. The measure proved most successful, and again he caught himself wondering if I could hear the music. His breathing rate changed, and slight movements of his head were observed. From simple music he proceeded to a hallucination of opera singing and then finally a mumbling of words which eventually seemed to become my voice questioning him about Deep Reflection. I could not recognize what was occurring.

From this he proceeded to visual hallucinations. An attempt to open his eyes nearly aroused him from his trance state. Thereafter he kept his eyes closed for both light and medium-deep trance activities. His first visual hallucination was a vivid flooding of his mind with an intense sense of pastel colors of changing hues and with a wavelike motion. He related this experience to his Deep Reflection experiences with me and also to his previous psychedelic experiences. He did not consider this experience sufficiently valid for his purposes of the moment because he felt that vivid memories were playing too

large a part. Hence he deliberately decided to visualize a flower, but the thought occurred to him that even as a sense of movement played a part in auditory hallucinations, he might employ a similar measure to develop a visual hallucination. At the moment, so he recalled after arousing from the trance and while discussing his experience, he wondered if I had ever built up hallucinations in my subjects by combining various sensory fields of experience. I told him that that was a standard procedure for me.

He proceeded with this visual hallucination by "feeling" his head turn from side to side and up and down to follow a barely visible, questionably visible, rhythmically moving object. Very shortly the object became increasingly more visible until he saw a giant rose, possibly three feet in diameter. This he did not expect, and thus he was certain at once that it was not a vivified memory but a satisfactory hallucination. With this realization came the insight that he might very well add to the hallucination by adding olfactory hallucinations of an intense, "unroselike," sickeningly sweet odor. This effort was also most successful. After experimenting with various hallucinations, Huxley aroused from his trance and discussed extensively what he had accomplished. He was pleased to learn that his experimental findings without any coaching or suggestions from me were in good accord with planned experimental findings with other subjects.

This discussion raised the question of anaesthesia, amnesia, dissociation, depersonalization, regression, time distortion, hypermnesia (an item difficult to test with Huxley because of his phenomenal memory), and an exploration of past repressed events.

Of these Huxley found that anaesthesia, amnesia, time distortion, and hypermnesia were possible in the light trance. The other phenomena were conducive to the development of a deep trance with any earnest effort to achieve them.

The anaesthesia he developed in the light trance was most effective for selective parts of the body. When generalized anaesthesia from the neck down was attempted, Huxley found himself "slipping" into a deep trance.

The amnesia, like the anaesthesia, was effective when selective in character. Any effort to have a total amnesia resulted in a progression toward a deep trance.

Time distortion was easily possible, and Huxley offered the statement that he was not certain but that he felt strongly that he had long employed time distortion in Deep Reflection, although his first formal introduction to the concept had been through me. Hypermnesia, so difficult to test because of his extreme capacity to recall past events, was tested upon my suggestion by asking him in the light trance state to state promptly upon request on what page of various of his books certain paragraphs could be found. At the first request Huxley aroused from the light trance and explained, "Really now, Milton, I can't do that. I can with effort recite most of that book, but the page number for a paragraph is not exactly cricket." Nevertheless he went back into a light trance, the name of the volume was given, a few lines of a paragraph were read aloud to him, whereupon he was to give the page number on which it appeared. He succeeded in identifying better than 65 percent in an amazingly prompt fashion. Upon awakening from

the light trance, he was instructed to remain in the state of conscious awareness and to execute the same task. To his immense astonishment he found that, while the page number "flashed" into his mind in the light trance state, in the waking state he had to follow a methodical procedure of completing the paragraph mentally, beginning the next, then turning back mentally to the preceding paragraph, and then "making a guess." When restricted to the same length of time he had employed in the light trance, he failed in each instance. When allowed to take whatever length of time he wished, he could reach an accuracy of about 40 per cent, but the books had to be ones more recently read than those used for the light trance state.

Huxley then proceeded to duplicate in the medium trance all that he had done in the light trance. He accomplished similar tasks much more easily but constantly experienced a feeling of "slipping" into a deeper trance.

Huxley and I discussed this hypnotic behavior of his at very considerable length, with Huxley making most of the notations since only he could record his own subjective experience in relation to the topics discussed. For this reason the discussion here is limited.

We then turned to the question of deep hypnosis. Huxley developed easily a profound somnambulistic trance in which he was completely disoriented spontaneously for time and place. He was able to open his eyes but described his field of vision as being a "well of light" which included me, the chair in which I sat, himself, and his chair. He remarked at once upon the remarkable spontaneous restriction of his vision and disclosed an awareness that, for some reason unknown to him, he was obligated to "explain things" to me. Careful questioning disclosed him to have an amnesia about what had been done previously, nor did he have any awareness of our joint venture. His feeling that he must explain things became a casual willingness as soon as he verbalized it. One of his first statements was, "Really, you know, I can't understand my situation or why you are here, wherever that may be, but I must explain things to you." He was assured that I understood the situation and that I was interested in receiving any explanation he wished to give me and told that I might make requests of him. Most casually, indifferently he acceded, but it was obvious that he was enjoying a state of physical comfort in a contented, passive manner.

He answered questions simply and briefly, giving literally and precisely no more and no less than the literal significance of the question implied. In other words he showed the same precise literalness found in other subjects, perhaps more so because of his knowledge of semantics.

He was asked, "What is to my right?" His answer was simply, "I don't know." "Why?" "I haven't looked." "Will you do so?" "Yes." "Now!" "How far do you want me to look?" This was not an unexpected inquiry since I have encountered it innumerable times. Huxley was simply manifesting a characteristic phenomenon of the deep somnambulistic trance in which visual awareness is restricted in some inexplicable manner to those items pertinent to the trance situation. For each chair, couch, footstool I wished him to see

specific instructions were required. As Huxley explained later, "I had to look around until gradually it [the specified object] slowly came into view, not all at once, but slowly, as if it were materializing. I really believe that I felt completely at ease without a trace of wonderment as I watched things materialize. I accepted everything as a matter of course." Similar explanations have been received from hundreds of subjects. Yet experience has taught me the importance of my assumption of the role of a purely passive inquirer, one who asks a question solely to receive an answer regardless of its content. An intonation of interest in the meaning of the answer is likely to induce subjects to respond as if they had been given instructions concerning what answer to give. In therapeutic work I use intonations to influence more adequate personal responses by the patient.

With Huxley I tested this by enthusiastically asking, "What, tell me now, is that which is just about 15 feet in front of you?" The correct answer should have been, "A table." Instead, the answer received was "A table with a book and a vase on it." Both the book and the vase were on the table but on the far side of the table and hence more than 15 feet away. Later the same inquiry was made in a casual, indifferent fashion, "Tell me now, what is that just about 15 feet in front of you?" He replied, despite his previous answer, "A table." "Anything else?" "Yes." "What else?" "A book." [This was nearer to him than was the vase.] "Anything else?" "Yes." "Tell me now." "A vase." "Anything else?" "Yes. " "Tell me now. " "A spot." "Anything else?" "No."

This literalness and this peculiar restriction of awareness to those items of reality constituting the precise hypnotic situation is highly definitive of a satisfactory somnambulistic hypnotic trance. Along with the visual restriction there is also an auditory restriction of such character that sounds, even those originating between the operator and the subject, seem to be totally outside the hypnotic situation. Since there was no assistant present, this auditory restriction could not be tested. However, by means of a black thread not visible to the eye, a book was toppled from the table behind him against his back. Slowly, as if he had experienced an itch, Huxley raised his hand and scratched his shoulder. There was no startle reaction. This, too, is characteristic of the response made to many unexpected physical stimuli. They are interpreted in terms of past body experience. Quite frequently as a part of developing a deep somnambulistic trance subjects will concomitantly develop a selective general anaesthesia for physical stimuli not constituting a part of the hypnotic situation, physical stimuli in particular that do not permit interpretation in terms of past experience. This could not be tested in the situation with Huxley, since an assistant is necessary to make adequate tests without distorting the hypnotic situation. One illustrative measure I have used is to pass a threaded needle through the coat sleeve while positioning the arms, and then having an assistant saw back and forth on the thread from a place of concealment. Often a spontaneous anaesthesia would keep the subject unaware of the stimulus. Various simple measures are easily devised.

Huxley was then gently and indirectly awakened from the trance by the simple suggestion that he adjust himself in his chair to resume the exact physical and mental state he had had at the decision to discontinue until later any further experimental study of Deep Reflection.

Huxley's response was an immediate arousal, and he promptly stated that he was all set to enter deep hypnosis. While this statement in itself indicated profound posthypnotic amnesia, delaying tactics were employed in the guise of discussion of what might possibly be done. In this way it became possible to mention various items of his deep trance behavior. Such mention evoked no memories, and Huxley's discussion of the points raised showed no sophistication resulting from his deep trance behavior. He was as uninformed about the details of his deep trance behavior as he had been before the deep trance had been induced.

There followed more deep trances by Huxley in which, avoiding all personal significances, he was asked to develop partial, selective, and total posthypnotic amnesias (by partial is meant a part of the total experience, by selective amnesia is meant an amnesia for selected, perhaps interrelated items of experience), a recovery of the amnestic material, and a loss of the recovered material. He also developed catalepsy, tested by "arranging" him comfortably in a chair and then creating a situation constituting a direct command to rise from the chair ("take the book on that table there and place it on the desk over there and do it now"). By this means Huxley found himself inexplicably unable to arise from the chair and unable to understand why this was so. (The "comfortable arrangement" of his body had resulted in a positioning that would have to be corrected before he could arise from the chair, and no implied suggestions for such correction were to be found in the instructions given. Hence he sat helplessly, unable to stand and unable to recognize why. This same measure has been employed to demonstrate a saddle-block anaesthesia before medical groups. The subject in the deep trance is carefully positioned, a casual conversation is then conducted, the subject is then placed in rapport with another subject, who is asked to exchange seats with the first subject. The second subject steps over only to stand helplessly while the first subject discovers that she is (1) unable to move, and (2) that shortly the loss of inability to stand results in a loss of orientation to the lower part of her body and a resulting total anaesthesia without anaesthesia having been mentioned even in the preliminary discussion of hypnosis. This unnoticed use of catalepsy not recognized by the subject is a most effective measure in deepening trance states.

Huxley was amazed at his loss of mobility and became even more so when he discovered a loss of orientation to the lower part of his body, and he was most astonished when I demonstrated for him the presence of a profound anaesthesia. He was much at a loss to understand the entire sequence of events. He did not relate the comfortable positioning of his body to the unobtrusively induced catalepsy with its consequent anaesthesia.

He was aroused from the trance state with persistent catalepsy, anaesthesia, and a total amnesia for all deep trance experiences. He spontaneously enlarged the instruction to include all trance experiences, possibly because he did not hear my instructions sufficiently clearly. Immediately he reoriented himself to the time at which we had been working with Deep Reflection. He was much at a loss to explain his immobile state, and he expressed curious wonderment about what he had done in the Deep Reflection state, from which he assumed he had just emerged, and what had led to such inexplicable

manifestations for the first time in all of his experience. He became greatly interested, kept murmuring such comments as "most extraordinary" while he explored the lower part of his body with his hands and eyes. He noted that he could tell the position of his feet only with his eyes, that there was a profound immobility from the waist down, and he discovered, while attempting futilely because of the catalepsy to move his leg with his hands, that a state of anaesthesia existed. This he tested variously, asking me to furnish him with various things in order to make his test. For example he asked that ice be applied to his bare ankle by me, since he could not bend sufficiently to do so. Finally after much study he turned to me, remarking, "I say, you look cool and most comfortable, while I am in a most extraordinary predicament. I deduce that in some subtle way you have distracted and disturbed my sense of body awareness. I say, is this state anything like hypnosis?"

Restoration of his memory delighted him, but he remained entirely at a loss concerning the genesis of his catalepsy and his anaesthesia. He realized, however, that some technique of communication had been employed to effect the results achieved, but he did not succeed in the association of the positioning of his body with the final results.

Further experimentation in the deep trance investigated visual, auditory, and other types of ideo sensory hallucinations. One of the measures employed was to pantomime hearing a door open and then to appear to see someone entering the room, to arise in courtesy, and to indicate a chair, then to turn to Huxley to express the hope that he was comfortable. He replied that he was, and he expressed surprise at his wife's unexpected return, since he had expected her to be absent the entire day. (The chair I had indicated was one I knew his wife liked to occupy.) He conversed with her and apparently hallucinated replies. He was interrupted with the question of how he knew that it was his wife and not a hypnotic hallucination. He examined the question thoughtfully, then explained that I had not given him any suggestion to hallucinate his wife, that I had been as much surprised by her arrival as he had been, and that she was dressed as she had been just before her departure and not as I had seen her earlier. Hence it was reasonable to assume that she was a reality. After a brief, thoughtful pause he returned to his "conversation" with her, apparently continuing to hallucinate replies. Finally I attracted his attention and made a hand gesture suggestive of a disappearance toward the chair in which he "saw" his wife. To his complete astonishment he saw her slowly fade away. Then he turned to me and asked that I awaken him with a full memory of the experience. This I did, and he discussed the experience at some length, making many special notations in his notebook and elaborating them with the answers to questions he put to me. He was amazed to discover that when I asked him to awaken with a retention of the immobility and anaesthesia, he thought he had awakened but that the trance state had, to him, unrecognizably persisted.

He then urged further work on hypnotic hallucinatory experiences and a great variety (positive and negative visual, auditory, olfactory, gustatory, tactile, kinesthetic, temperature, hunger, satiety, fatigue, weakness, profound excited expectation, etc.) were explored. He proved to be most competent in all regards, and it was noted that his pulse rate would change as much as 20 points when he was asked to hallucinate the experience

of mountain climbing in a profound state of weariness. He volunteered in his discussion of these varied experiences the information that while a negative hallucination could be achieved readily in a deep trance, it would be most difficult in a light or medium trance, because negative hallucinations were most destructive of reality values, even those of the hypnotic situation. That is, with induced negative hallucinations, he found that I was blurred in outline even though he could develop a deep trance with a negative hallucination inherent in that deep trance for all external reality except the realities of the hypnotic situation, which would remain clear and well defined unless suggestions to the contrary were offered. Subsequent work with other subjects confirmed this finding by Huxley. I had not previously explored this matter of negative hallucinations in light and medium trances.

At this point Huxley recalled his page number identification in the lighter trance states during the inquiry into hypermnesia, and he asked that he be subjected to similar tests in deep hypnosis. Together we searched the library shelves, finally selecting several books that Huxley was certain he must have read many years previously but which he had not touched for 20 or more years. (One, apparently, he had never read; the other five he had.)

In a deep trance, with his eyes closed, Huxley listened intently as I opened the book at random and read a half-dozen lines from a selected paragraph. For some, he identified the page number almost at once, and then he would hallucinate the page and "read" it from the point where I had stopped. Additionally he identified the occasion on which he read the book. Two of the books he recalled consulting 15 years previously. Another two he found it difficult to give the correct page number, and then only approximating the page number. He could not hallucinate the printing and could only give little more than a summary of the thought content; but this in essence was correct. He could not identify when he had read them but was certain it was more than 25 years previously.

Huxley, in the post-trance discussion was most amazed by his performance as a memory feat but commented upon the experience as primarily intellectual, with the recovered memories lacking in any emotional significances of belonging to him as a person. This led to a general discussion of hypnosis and Deep Reflection, with a general feeling of inadequacy on Huxley's part concerning proper conceptualization of his experiences for comparison of values. While Huxley was most delighted with his hypnotic experiences for their interest and the new understandings they offered him, he was also somewhat at a loss. He felt that as a purely personal experience he derived certain unidentifiable subjective values from Deep Reflection not actually obtainable from hypnosis, which offered only a wealth of new points of view. Deep Reflection, he declared, gave him certain inner enduring feelings that seemed to play some significant part in his pattern of living. During this discussion he suddenly asked if hypnosis could be employed to permit him to explore his psychedelic experiences. His request was met, but upon arousal from the trance he expressed the feeling that the hypnotic experience was quite different from a comparable "feeling through" by means of Deep Reflection. He explained that the hypnotic exploration did not give him an inner feeling—that is, a continuing subjective feeling—of just being in the midst of his psychedelic experience, that there was an ordered intellectual content paralleling the "feeling content," while Deep Reflection

established a profound emotional background of a stable character upon which he could "consciously and effortlessly lay an intellectual display of ideas" to which the reader would make full response. This discussion Huxley brought to a close by the thoughtful comment that his brief intensive experience with hypnosis had not yet begun to digest and that he could not expect to offer an intelligent comment without much more thought.

He asked urgently that further deep hypnosis be done with him in which more complex phenomena be induced to permit him to explore himself more adequately as a person. After a rapid mental review of what had been done and what might yet be done I decided upon the desirability of a deep trance state with the possibility of a two-stage dissociative regression—that is, of the procedure of regressing him by dissociating him from a selected recent area of his life experience so that he could view it as an onlooker from the orientation of another relatively recent area of life experience. The best way to do this, I felt, would be by a confusion technique. This decision to employ a confusion technique was influenced in large part by the author's awareness of Huxley's unlimited intellectual capacity and curiosity, which would aid greatly by leading Huxley to add to the confusion technique verbalizations other possible elaborate meanings and significances and associations, thereby actually supplementing in effect my own efforts. Unfortunately there was no tape recorder present to preserve the details of the actual suggestions, which were to the effect that Huxley go ever deeper and deeper into a trance until "the depth was a part and apart" from him, that before him would appear in "utter clarity, in living reality, in impossible actuality, that which once was, but which now in the depths of the trance, will, in bewildering confrontation challenge all of your memories and understandings." This was a purposely vague, yet permissively comprehensive suggestion, and I simply relied upon Huxley's intelligence to elaborate it with an extensive meaningfulness for himself which I could not even attempt to guess. There were of course other suggestions, but they centered in effect upon the suggestion enclosed in the quotation above. What I had in mind was not a defined situation but a setting of the stage so that Huxley himself would be led to define the task. I did not even attempt to speculate upon what my suggestions might mean to Huxley.

It became obvious that Huxley was making an intensive hypnotic response during the prolonged, repetitious suggestions I was offering, when suddenly he raised his hand and said rather loudly and most urgently, "I say, Milton, do you mind hushing up there. This is most extraordinarily interesting down here, and your constant talking is frightfully distracting and annoying."

For more than two hours Huxley sat with his eyes open, gazing intently before him. The play of expression on his face was most rapid and bewildering. His heart rate and respiratory rate were observed to change suddenly and inexplicably and repeatedly at irregular intervals. Each time that the author attempted to speak to him, Huxley would raise his hand, perhaps lift his head, and speak as if the author were at some height above him, and frequently he would annoyedly request silence.

After well over two hours he suddenly looked up toward the ceiling and remarked with puzzled emphasis, "I say, Milton, this is an extraordinary contretemps. We don't know

you. You do not belong here. You are sitting on the edge of a ravine watching both of us, and neither of us knows which one is talking to you; and we are in the vestibule looking at each other with most extraordinary interest. We know that you are someone who can determine our identity, and most extraordinarily we are both sure we know it and that the other is not really so, but merely a mental image of the past or of the future. But you must resolve it despite time and distances and even though we do not know you. I say, this is an extraordinarily fascinating predicament: Am I he or is he me? Come, Milton, whoever you are." There were other similar remarks of comparable meaning which could not be recorded, and Huxley's tone of voice suddenly became most urgent. The whole situation was most confusing to me, but temporal and other types of dissociation seemed to be definitely involved in the situation.

Wonderingly, but with outward calm, I undertook to arouse Huxley from the trance state by accepting the partial clues given and by saying in essence. "Wherever you are, whatever you are doing, listen closely to what is being said and slowly, gradually, comfortably begin to act upon it. Feel rested and comfortable, feel a need to establish an increasing contact with my voice, with me, with the situation I represent, a need of returning to matters in hand with me, not so long ago, in the not so long ago belonging to me, and leave behind but AVAILABLE UPON REQUEST *practically everything of importance*, KNOWING BUT NOT KNOWING *that it is* AVAILABLE UPON REQUEST. And now, let us see, that's right, you are sitting there, wide awake, rested, comfortable, and *ready for discussion of what little there is.*"

Huxley aroused, rubbed his eyes, and remarked, "I have a most extraordinary feeling that I have been in a profound trance, but it has been a most sterile experience. I recall you suggesting that I go deeper in a trance, and I felt myself to be most compliant, and though I feel much time has elapsed, I truly believe a state of Deep Reflection would have been more fruitful."

Since he did not specifically ask the time, a desultory conversation was conducted in which Huxley compared the definite but vague appreciation of external realities of the light trance with the more definitely decreased awareness of externalities 'in the medium trance, which is accompanied by a peculiar sense of minor comfort that those external realities can become secure actualities at any given moment.

He was then asked about realities in the deep trance from which he had just recently aroused. He replied thoughtfully that he could recall vaguely feeling that he was developing a deep trance, but no memories came to mind associated with it. After some discussion of hypnotic amnesia and the possibility that he might be manifesting such a phenomenon, he laughed with amusement and stated that such a topic would be most intriguing to discuss. After still further desultory conversation he was asked a *propos* of nothing, "In what vestibule would you place that chair?" (indicating a nearby armchair.) His reply was remarkable. "Really, Milton, that is a most extraordinary question. Frightfully so! It is quite without meaning, but that word 'vestibule' has a strange feeling of immense, anxious warmth about it. Most extraordinarily fascinating!" He lapsed into a puzzled thought for some minutes and finally stated that if there were any significance, it

was undoubtedly some fleeting esoteric association. After further casual conversation I remarked, "As for the edge where I was sitting, I wonder how deep the ravine was." To this Huxley replied, "Really Milton, you can be most frightfully cryptic. Those words 'vestibule,' 'edge,' 'ravine' have an extraordinary effect upon me. It is most indescribable. Let me see if I can associate some meaning with them." For nearly 15 minutes Huxley struggled vainly to secure some meaningful associations with those words, now and then stating that my apparently purposive but unrevealing use of them constituted a full assurance that there was a meaningful significance which should be apparent to him. Finally he disclosed with elation, "I have it now. Most extraordinary how it escaped me. I'm fully aware that you had me in a trance, and unquestionably those words had something to do with the deep trance which seemed to be so sterile to me. I wonder if I can recover my associations."

After about 20 minutes of silent, obviously intense thought on his part Huxley remarked, "If those words do have a significance, I can truly say that I have a most profound hypnotic amnesia. I have attempted Deep Reflection, but I have found my thoughts centering around my mescaline experiences. It was indeed difficult to tear myself away from those thoughts. I had a feeling that I was employing them to preserve my amnesia. Shall we go on for another half-hour on other matters to see if there is any spontaneous recall in association with 'vestibule,' 'edge', and 'ravine?'"

Various topics were discussed until finally Huxley said, "It is a most extraordinary feeling of meaningful warmth those words have for me, but I am utterly, I might say frightfully, helpless. I suppose I will have to depend upon you for something, whatever that may be. It's extraordinary, most extraordinary."

This comment I deliberately bypassed, but during the ensuing conversation Huxley was observed to have a most thoughtful, puzzled expression on his face, though he made no effort to press me for assistance. After some time I commented with quiet emphasis, "Well, perhaps now matters will *become available.*" From his lounging, comfortable position in his chair Huxley straightened up in a startled amazed fashion and then poured forth a torrent of words too rapid to record except for occasional notes.

In essence his account was that the word "available" had the effect of drawing back an amnestic curtain, laying bare a most astonishing subjective experience that had miraculously been "wiped out" by the words "leave behind" and had been recovered *in toto* by virtue of the cue words "become available."

He explained that he now realized that he had developed a "deep trance," a psychological state far different from his state of Deep Reflection, that in Deep Reflection there was an attenuated but unconcerned and unimportant awareness of external reality, a feeling of being in a known sensed state of subjective awareness, of a feeling of control and a desire to utilize capabilities and in which past memories, learnings, and experiences flowed freely and easily. Along with this flow there would be a continuing sense in the self that these memories, learnings, experiences, and understandings, however vivid, were no more than just such an orderly, meaningful alignment of psychological experiences out of

which to form a foundation for a profound, pleasing, subjective, emotional state from which would flow comprehensive understandings to be utilized immediately and with little conscious effort.

The deep trance state, he asserted, he now knew to be another and entirely different category of experience. External reality could enter, but it acquired a new kind of subjective reality, a special reality of a new and different significance entirely. For example, while I had been included in part in his deep trance state, it was not as a specific person with a specific identity. Instead I was known only as someone whom he (Huxley) knew in some vague and unimportant and completely unidentified relationship.

Aside from my “reality” there existed the type of reality that one encounters in vivid dreams, a reality that one does not question. Instead one accepts such reality completely without intellectual questioning, and there are no conflicting contrasts nor judgmental comparisons nor contradictions, so that whatever is subjectively experienced is unquestioningly accepted as both subjectively and objectively genuine and in keeping with all else.

In his deep trance Huxley found himself in a deep, wide ravine, high up on the steep side of which, on the very edge, I sat, identifiable only by name and as annoyingly verbose.

Before him in a wide expanse of soft, dry sand was a nude infant lying on its stomach. Acceptingly, unquestioning of its actuality, Huxley gazed at the infant, vastly curious about its behavior, vastly intent on trying to understand its flailing movements with its hands and the creeping movements of its legs. To his amazement he felt himself experiencing a vague, curious sense of wonderment as if he himself were the infant and looking at the soft sand and trying to understand what it was.

As he watched, he became annoyed with me since I was apparently trying to talk to him, and he experienced a wave of impatience and requested that I be silent. He turned back and noted that the infant was growing before his eyes, was creeping, sitting, standing, toddling, walking, playing, talking. In utter fascination he watched this growing child, sensed its subjective experiences of learning, of wanting, of feeling. He followed it in distorted time through a multitude of experiences as it passed from infancy to childhood to schooldays to early youth to teenage. He watched the child’s physical development, sensed its physical and subjective mental experiences, sympathized with it, empathized with it, rejoiced with it, thought and wondered and learned with it. He felt as one with it, as if it were he himself, and he continued to watch it until finally he realized that he had watched that infant grow to the maturity of 23 years. He stepped closer to see what the young man was looking at, and suddenly realized that the young man was Aldous Huxley himself, and that this Aldous Huxley was looking at another Aldous Huxley, obviously in his early 50’s, just across the vestibule in which they both were standing; and that he, aged 52, was looking at himself, Aldous, aged 23. Then Aldous aged 23 and Aldous aged 52 apparently realized simultaneously that they were looking at each other, and the curious questions at once arose in the mind of each of them. For one the question was, “Is that my idea of what I’ll be like when I am 52?” and, “Is that really the way I appeared

when I was 23?" Each was aware of the question in the other's mind. Each found the question of "extraordinarily fascinating interest," and each tried to determine which was the "actual reality" and which was the "mere subjective experience outwardly projected in hallucinatory form."

To each the past 23 years was an open book, all memories and events were clear, and they recognized that they shared those memories in common, and to each only wondering speculation offered a possible explanation of any of the years between 23 and 52.

They looked across the vestibule (this "vestibule" was not defined) and up at the edge of the ravine where I was sitting. Both knew that that person sitting there had some undefined significance, was named Milton, and could be spoken to by both. The thought came to both, could he hear both of them, but the test failed because they found that they spoke simultaneously, nor could they speak separately.

Slowly, thoughtfully, they studied each other. One had to be real. One had to be a memory image or a projection of a self-image. Should not Aldous aged 52 have all the memories of the years from 23 to 52? But if he did, how could he then see Aldous aged 23 without the shadings and colorations of the years that had passed since that youthful age? If he were to view Aldous aged 23 clearly, he would have to blot out all subsequent memories in order to see that youthful Aldous clearly and as he then was. But if he were actually Aldous aged 23, why could he not speculatively fabricate memories for the years between 23 and 52 instead of merely seeing Aldous as 52 and nothing more? What manner of psychological blocking could exist to effect this peculiar state of affairs? Each found himself fully cognizant of the thinking and reasoning of the "other." Each doubted "the reality of the other," and each found reasonable explanations for such contrasting subjective experiences. The questions arose repeatedly, by what measure could the truth be established, and how did that unidentifiable person possessing only a name sitting on the edge of a ravine on the other side of the vestibule fit into the total situation? Could that vague person have an answer? Why not call to him and see?

With much pleasure and interest Huxley detailed his total subjective experience, speculating upon the years of time distortion experienced and the memory blockages creating the insoluble problem of actual identity.

Finally, experimentally, the author remarked casually, "Of course, all that could be *left behind to become AVAILABLE at some later time.*"

Immediately there occurred a reestablishment of the original posthypnotic amnesia. Efforts were made to disrupt this reinduced hypnotic amnesia by veiled remarks, by frank, open statements, by a narration of what had occurred. Huxley found my narrative statements about an infant on the sand, a deep ravine, a vestibule "curiously interesting," simply cryptic remarks for which Huxley judged I had a purpose. But they were not evocative of anything more. Each statement I made was in itself actually uninformative and intended only to arouse associations. Yet no results were forthcoming until again the word "available" resulted in the same effect as previously. The whole account was related

by Huxley a second time but without his realization that he was repeating his account. Appropriate suggestions when he had finished his second narration resulted in a full recollection of his first account. His reaction, after his immediate astonishment, was to compare the two accounts item by item. Their identity amazed him, and he noted only minor changes in the order of narration and the choice of words.

Again, as before, a posthypnotic amnesia was induced, and a third recollection was then elicited, followed by an induced realization by Huxley that this was his third recollection.

Extensive, detailed notations were made of the whole sequence of events, and comparisons were made of the individual notations, with interspersed comments regarding significances. The many items were systematically discussed for their meanings, and brief trances were induced to vivify various items. However, only a relatively few notations were made by me of the content of Huxley's experience, since he would properly be the one to develop them fully. My notations concerned primarily the sequence of events and a fairly good summary of the total development.

This discussion was continued until preparations for scheduled activities for that evening intervened, but not before an agreement on a subsequent preparation of the material for publication. Huxley planned to use both Deep Reflection and additional self-induced trances to aid in writing the article, but the unfortunate holocaust precluded this.

## **CONCLUDING REMARKS**

It is unfortunate that the above account is only a fragment of an extensive inquiry into the nature of various states of consciousness. Huxley's state of Deep Reflection did not appear to be hypnotic in character. Instead it seemed to be a state of utterly intense concentration with much dissociation from external realities but with a full capacity to respond with varying degrees of readiness to externalities. It was entirely a personal experience serving apparently as an unrecognized foundation for conscious work activity enabling him to utilize freely all that had passed through his mind in Deep Reflection.

His hypnotic behavior was in full accord with hypnotic behavior elicited from other subjects. He was capable of all the phenomena of the deep trance and could respond readily to posthypnotic suggestions and to exceedingly minimal cues. He was emphatic in declaring that the hypnotic state was quite different from the Deep Reflection state.

While some comparison may be made with dream activity, and certainly the ready inclusion of the "vestibule" and the "ravine" in the same subjective situation is suggestive of dreamlike activity, such peculiar inclusions are somewhat frequently found as a spontaneous development of profound hypnotic ideo sensory activity in highly intellectual subjects. His somnambulistic behavior, his open eyes, his responsiveness to me, his extensive posthypnotic behavior all indicate that hypnosis was unquestionably definitive of the total situation in that specific situation.

Huxley's remarkable development of a dissociated state, even bearing in mind his original request for a permissive technique, to view hypnotically his own growth and development in distorted time relationships, while indicative of Huxley's all-encompassing intellectual curiosity, is suggestive of most interesting and informative research possibilities. Post-experimental questioning disclosed that Huxley had no conscious thoughts or plans for review of his life experiences, nor did he at the time of the trance induction make any such interpretation of the suggestions given him. This was verified by a trance induction and making this special inquiry. His explanation was that when he felt himself "deep in the trance," he then began to search for something to do, and "suddenly there I found myself—most extraordinary."

While this experience with Huxley was most notable, it was not my first encounter with such developments in the regression of highly intelligent subjects. One such experimental subject asked that he be hypnotized and informed when in the trance that he was to develop a profoundly interesting type of regression. This was primarily to be done for his own interest while he was waiting for me to complete some work. His request was met, and he was left to his own devices while sitting in a comfortable chair on the other side of the laboratory. About two hours later he requested that I awaken him. He gave an account of suddenly finding himself on an unfamiliar hillside, and looking around he saw a small boy whom he immediately "knew" was six years old. Curious about this conviction of a strange little boy, he walked over to the child, only to discover that that child was himself. He immediately recognized the hillside and set about trying to discover how he could be himself at 26 years of age watching himself at the age of six years. He soon learned that he could not only see, hear, and feel his child-self, but that he knew the innermost thoughts and feelings. At the moment of realizing this, he felt the child's feeling of hunger and his wish for "brown cookies." This brought a flood of memories to his 26-year-old self, but he noticed that the boy's thoughts were still centering on cookies and that the boy remained totally unaware of him. He was an invisible man, in some way regressed in time so that he could see and sense completely his childhood self. My subject reported that he "lived" with that boy for years, watched his successes and his failures, knew all of his innermost life, wondered about the next day's events with the child, and like the child he found to his amazement that even though he was 26 years old, a total amnesia existed for all events subsequent to the child's immediate age at the moment, that he could not foresee the future any more than could the child. He went to school with the child, vacationed with him, always watching the continuing physical growth and development. As each new day arrived, he found that he had a wealth of associations about the actual happenings of the past up to the immediate moment of life for the child-self.

He went through grade school, high school, and then through a long process of deciding whether or not to go to college and what course of studies he should follow. He suffered the same agonies of indecision that his then-self did. He felt his other self's elation and relief when the decision was finally reached, and his own feeling of elation and relief was identical with that of his other self.

My subject explained that the experience was literally a moment-by-moment reliving of his life with only the same awareness he had then and that the highly limited restricted awareness of himself at 26 was that of being an invisible man watching his own growth and development from childhood on, with no more knowledge of the child's future than the child possessed.

He had enjoyed each completed event with a vast and vivid panorama of the past memories as each event reached completion. At the point of entrance to college the experience terminated. He then realized that he was in a deep trance and that he wanted to awaken and to take with him into conscious awareness the memory of what he had been subjectively experiencing.

This same type of experience has been encountered with other experimental subjects, both male and female, but each account varies in the manner in which the experience is achieved. For example a girl who had identical twin sisters three years younger than herself found herself to be "a pair of identical twins growing up together but always knowing everything about the other." In her account there was nothing about her actual twin sisters; all such memories and associations were excluded.

Another subject, highly inclined mechanically, constructed a robot which he endowed with life only to discover that it was his own life with which he endowed it. He then watched that robot throughout many years of experiential events and learnings, always himself achieving them also because he had an amnesia for his past.

Repeated efforts to set this up as an orderly experiment have to date failed. Usually the subjects object or refuse for some not too comprehensible a reason. In all of my experience with this kind of development in hypnotic trances this type of "reliving" of one's life has always been a spontaneous occurrence with highly intelligent, well-adjusted experimental subjects.

Huxley's experience was the one most adequately recorded, and it is most unfortunate that the greater number of details, having been left with him, were destroyed before he had the opportunity to write them up in full. Huxley's remarkable memory, his capacity to use Deep Reflection, and his ability to develop a deep hypnotic state to achieve specific purposes and to arouse himself at will with full conscious awareness of what he had accomplished (Huxley required very little instruction the next day to become skilled in autohypnosis) augured exceedingly well for a most informative study. Unfortunately the destruction of both notebooks precluded him from any effort to reconstruct them from memory, because my notebook contained so many notations of items of procedure and observation for which he had no memories and which were vital to any satisfactory elaboration. However, it is hoped that the report given here may serve, despite its deficiencies, as an initial pilot study for the development of a more adequate and comprehensive study of various states of consciousness.

# **Autohypnotic Experiences of Milton H. Erickson**

Milton H. Erickson and Ernest L. Rossi

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During the past four years between the ages of 70 to 74, the senior author recounted a number of personal factors and experiences that contributed to the development of his interest, attitudes, and approaches to autohypnosis, trance, and psychotherapy. Many of Erickson's earliest memories deal with the ways in which his experience was different from others because of his constitutional problems: He experienced an unusual form of color blindness, arrhythmia, tone deafness, and dyslexia long before such conditions were well recognized and diagnosed in the fairly primitive rural community in which he was reared. As a child in elementary school, for example, he could never understand why people did that yelling and screeching they called "singing." Although he was different in ways that neither he nor others could understand, he possessed an acutely probing intelligence that initiated him into a lifetime of inquiry about the limitations and relativity of human perception and behavior. When he visited his maternal grandmother for the first time at the age of four, for example, the little Erickson was struck by the incredulity in her voice as she said over and over to his mother, "It's you Clara; it's really, really you?!" The grandmother had never traveled further than ten miles from her home and really did not have any conception of how people close to her could exist beyond that radius. When her daughter married and moved beyond it, she really never expected to see her again. Thus, by the age of four, Erickson was already struck, in however dim and wordless a manner, with the differences and limitations in people's perspectives.

Another experience with the limitations and rigidities in people's habitual frames of reference occurred somewhat before the age of ten, when Erickson doubted his grandfather's method of planting potatoes only during a certain phase of the moon and always with the "eyes" up. The young lad was hurt and saddened when his grandfather could not believe the facts when Erickson demonstrated that his own potato patch planted at the "wrong" phase of the moon with the "eyes" in all directions did just as well. From such early experiences Erickson feels he developed a distaste for rigidities. These experiences provided an orientation for some of his original approaches to psychotherapy wherein he used shock and surprise to break through the habitual limitations in patients' frames of reference to effect a rapid therapeutic reorganization of their symptoms and life perspectives (Rossi, 1973). Depotentiation of a subject's habitual mental sets and frames of references has been recently conceptualized as an important stage in initiating trance experience (Erickson, Rossi, and Rossi, 1976).

As a six-year-old child Erickson was apparently handicapped with dyslexia. Try as she might, his teacher could not convince him that a "3" and an "m" were not the same. One day the teacher wrote a 3 and then an m by guiding his hand with her own. Still Erickson

could not recognize the difference. Suddenly he experienced a spontaneous visual hallucination in which he saw the difference in a blinding flash of light.

*E:* Can you image how bewildering it is? Then one day, it's so amazing, there was a sudden burst of atomic light. I saw the m and I saw the 3. The m was standing on its legs and the 3 was on its side with the legs sticking out. The blinding flash of light! It was so bright! It cast into oblivion every other thing. There was a blinding flash of light and in the center of that terrible outburst of light were the 3 and the m.

*R:* You really saw a blinding flash of light? You saw it out there, you're not just using a metaphor?

*E:* Yes, and it obscured every other thing except a 3 and an m.

*R:* Were you aware you were in an altered state? Did you, as a child, wonder about that funny experience?

*E:* That's the way you learn things.

*R:* I guess that's what I'd call a creative moment (Rossi, 1972, 1973). You experienced a genuine perceptual alteration: a flash of light with the 3 and the m in the center. Did they actually have legs?

*E:* I saw them as they were. [Erickson draws a simple picture of a cloud effect with a 3 and an m in the center.] And this excluded everything else!

*R:* Was this a visual hallucination? As a six-year-old child you actually experienced an important intellectual insight in the form of a visual hallucination?

*E:* Yes, I can't remember anything else pertaining to that day. The most blinding, dazzling flash of light occurred in my sophomore year of high school. I had the nickname in grade school and high school, "Dictionary," because I spent so much time reading the dictionary. One noon, just after the noon dismissal bell rang, I was in my usual chair reading the dictionary in the back of the room. Suddenly a blinding, dazzling flash of light occurred because I just learned how to use the dictionary. Up to that moment in looking up a word, I started at the first page and went through every column, page after page until I reached the word. In that blinding flash of light I realized that you use the alphabet as an ordered system for looking up a word. The students who brought their lunch to school always ate in the basement. I don't know how long I sat there completely dazzled by the blinding light, but when I did get down to the basement, most of the students had finished their lunches. When they asked me why I was so late in reaching the basement, I knew that I wouldn't tell them that I had just learned how to use the dictionary. I don't know why it took me so long. Did my unconscious purposely

withhold that knowledge because of the immense amount of education I got from reading the dictionary?

In these early experiences we see the bewilderment of dyslexia and the special orientation it gave even the young child to learn about altered perceptions and states of experience. Erickson defines the presence of intense light and/or visual hallucination that blots out all other perception of outer reality as evidence of a spontaneous autohypnotic state. He notes the connection between such altered states and “the way you learn things.” The source of his “utilization approach” is also contained in such experiences. Many years later he taught 70-year-old “Maw” how to read and write by utilizing her own internal images of legs, hoes, and other farm imagery to help her perceive the significance of the otherwise meaningless jumble of lines that are letters and words (Erickson, 1959).

Erickson relates his dyslexia and early difficulties with pronunciation to his therapeutic approach as follows:

*E*: I must have had a slight dyslexia. I thought I knew for an absolute fact that when I said “co-mick-al, vin-gar, goverment, and mung” my pronunciation was identical with the sounds made when others said I “comical, vinegar, government, and spoon.” When I was a sophomore in high school, the debating coach spent a useless hour trying to teach me how to say “government.” Upon sudden inspiration she used the name of a fellow student, “La Verne,” and wrote on the blackboard, “govLaVernement.” I read, “govlavemement.” She then asked me to read it, omitting the La of LaVerne. As I did so a blinding flash of light occurred that obliterated all surrounding objects including the blackboard. I credit Miss Walsh for my technique of introducing the unexpected and irrelevant into a fixed, rigid pattern to explode it. A patient walked in today trembling and sobbing, “I’m fired. It always happens to me. My boss always bullies me. They always call me names and I always cry. Today my boss yelled at me saying, “Stupid! stupid! stupid! Get out! Get out!” So here I am. “ I said very earnestly and seriously to her, “Why don’t you tell him that if he had only let you know, you would have gladly done the job much more stupidly!” She looked blank, bewildered, stunned, and then burst into laughter, and the rest of the interview proceeded well with sudden gales of laughter—usually self-directed.

*R*: Her laughter indicates you had helped her break out of her limited view of herself as a victim. A basic principle of your *utilization* approach is illustrated in your early experience with Miss Walsh. She utilized your ability to pronounce LaVerne to help you break out of your stereotyped error in pronouncing *government*.

## **AUTOHYPNOSIS IN LIFE CRISIS**

At the age of 17, when Erickson lay acutely ill with polio for the first time he had the following experience.

*E:* As I lay in bed that night, I overheard the three doctors tell my parents in the other room that their boy would be dead in the morning. I felt intense anger that anyone should tell a mother her boy would be dead by morning. My mother then came in with as serene a face as can be. I asked her to arrange the dresser, push it up against the side of the bed at an angle. She did not understand why, she thought I was delirious. My speech was difficult. But at that angle by virtue of the mirror on the dresser I could see through the doorway, through the west window of the other room. I was damned if I would die without seeing one more sunset. If I had any skill in drawing, I could still sketch that sunset.

*R:* Your anger and wanting to see another sunset was a way you kept yourself alive through that critical day in spite of the doctors' predictions. But why do you call that an autohypnotic experience?

*E:* I saw that vast sunset covering the whole sky. But I know there was also a tree there outside the window, but I blocked it out.

*R:* You blocked it out? It was that selective perception that enables you to say you were in an altered state?

*E:* Yes, I did not do it consciously. I saw all the sunset, but I didn't see the fence and large boulder that were there. I blocked out everything except the sunset. After I saw the sunset, I lost consciousness for three days. When I finally awakened, I asked my father why they had taken out that fence, tree, and boulder. I did not realize I had blotted them out when I fixed my attention so intensely on the sunset. Then, as I recovered and became aware of my lack of abilities, I wondered how I was going to earn a living. I had already published a paper in a national agricultural journal. "Why Young Folks Leave the Farm." I no longer had the strength to be a farmer, but maybe I could make it as a doctor.

*R:* Would you say it was the intensity of your inner experience, your spirit and sense of defiance, that kept you alive to see that sunset?

*E:* Yes, I would. With patients who have a poor outlook, you say, "Well, you should live long enough to do this next month." And they do.

## ***UTILIZING REAL SENSE MEMORIES RATHER THAN IMAGINATION***

*R:* How do you use autohypnosis to help yourself with your infirmities and pain?

*E:* It usually takes me an hour after I awaken to get all the pain out. It used to be easier when I was younger. I have more muscle and joint difficulties now.

*R:* What were your first experiences in coping with your own muscle difficulties and pain? How did you learn to do it? Did someone train you in autohypnosis?

*E*: I learned by myself. I can recall how I approached using a microscope. If you really want to see through the microscope and you want to draw what you are seeing, you keep both eyes open. You look with one eye and you draw with the other.

*R*: What's that got to do with autohypnosis?

*E*: You don't see anything else.

*R*: You only see what is relevant for your task and block out everything else. It's that aspect of selective perception that enables you to recognize the altered state of autohypnosis. How did you cope with pain at that time?

*E*: One of my first efforts was to learn relaxation and building up my strength. I made chains out of rubber bands so I could pull against certain resistances. I went through that every night and all the exercises I could. Then I learned I could walk to induce fatigue to get rid of the pain. *Slowly I learned that if I could think about walking and fatigue and relaxation, I could get relief.*

*R*: Thinking about walking and fatigue was just as effective in producing pain relief as the actual physical process?

*E*: Yes, it became effective in reducing pain.

*R*: In your self-rehabilitative experiences between the ages of 17 and 19 you learned from your own experience that you could use your imagination to achieve the same effects as an actual physical effort.

*E*: An *intense memory* rather than imagination. You remember how something tastes, you know how you get a certain tingle from peppermint. As a child I used to climb a tree in a wood lot and then jump from one tree to another like a monkey. I would recall the many different twists and turns I made in order to find out what are the movements you make when you have full muscles.

*R*: You activated real memories from childhood in order to learn just how much muscle control you had left and how to reacquire that control.

*E*: Yes, you use real memories. At 18 I recalled all my childhood movements to help myself relearn muscle coordination. [Erickson now recalls how he spent much time and effort remembering the sensations of swimming, the feeling of water rushing past the different muscles of the body, etc.]

*R*: This could be a way of facilitating autohypnosis by having people go into their sense memories. This would activate autonomous sensory responses that are an aspect of autohypnotic behavior: not imagination but real sense memories.

*E:* As you watch Buster Keaton in a movie teetering on the edge of a building, you can feel your own muscles tense up.

*R:* The movie or pure imagination provides an associative pathway to your own sense memories, which you then actually experience in the form of muscle tension.

This fascinating account of his early self-taught approaches to self-rehabilitation by using sense memories to recall and relearn to use his muscles is the source of much of Erickson's experimental work with the nature of trance (Erickson, 1964, 1967) and hypnotic realities (Erickson, Rossi, and Rossi, 1976). An imaginative account in a book or movie might focus one inward and facilitate access to one's own sense memories, but it is these real memories rather than pure imagination per se that evoke the ideomotor and ideo sensory processes that lead one more deeply into trance and new possibilities of learning. Whereas at the age of six Erickson had an entirely spontaneous experience of the relation between an altered state and new learning, by 19 he had begun to actually cultivate altered states by going deeply into his sense memories to relearn the use of his muscles. He did not yet label these experiences as altered states or autohypnosis. The obvious relation between these early experiences and his later understanding of trance is evident, however, when he wrote: "*The hypnotic state is an experience that belongs to the subject, derives from the subject's own accumulated learnings and memories*, not necessarily consciously recognized, but possible of manifestation in a special state of non-waking awareness. Hence the hypnotic trance belongs only to the subject; the operator can do no more than learn how to proffer stimuli and suggestions to evoke responsive behavior based upon the subject's own experiential past" (Erickson, 1967). The view that all hypnosis is essentially autohypnosis certainly finds support in Erickson's personal and professional experience. Hypnotic induction techniques may be best understood as approaches that provide subjects with opportunities for the intense self-absorption and inner experiences called trance. The wise operator then develops skill in relating creatively to this inner experience of his subjects.

## **EARLY TRAINING IN DREAM AND SOMNAMBULISTIC ACTIVITY**

*E:* I was forever observing. I'll tell you the most egotistical thing I ever did. I was 20 years old, a first-semester sophomore in college, when I applied for a job at the local newspaper, *The Daily Cardinal*, in Wisconsin. I wanted to write editorials. The editor, Porter Butz, humored me and told me I could drop them off in his mail box each morning on my way to school. I had a lot of reading and studying to do to make up for my barren background in literature on the farm. I wanted to get a lot of education. I got an idea of how to proceed by recalling how, when I was younger, I would sometimes correct arithmetic problems in my dreams.

My plan was to study in the evening and then go to bed at 10:30 p.m., when I'd fall asleep immediately. But I'd set my alarm clock for 1:00 a.m. I planned that I would get up at 1:00 a.m. and type out the editorial and place the typewriter on top of the pages and then go back to sleep. When I awakened the next morning, I

was very surprised to see some typewritten material under my typewriter. I had no memory of getting up and writing. At every opportunity I'd write editorials in that way.

I purposely did not try to read the editorials but I kept a carbon copy. I'd place the unread editorials in the editor's mail box and every day I would look in the paper to see if I could find one written by me, but I couldn't. At the end of the week I looked at my carbon copies. There were three editorials, and all three had been published. They were mostly about the college and its relation to the community. I had not recognized my own work when it was on the printed page. I needed the carbon copies to prove it to myself.

R: Why did you decide not to look at your writing in the morning?

E: I wondered if I could write editorials. If I did not recognize my words on the printed page, that would tell me there was a lot more in my head than I realized. Then I had my proof that I was brighter than I knew. When I wanted to know something, I wanted it undistorted by somebody else's imperfect knowledge. My roommate was curious about why I jumped up at 1:00 a.m. to type. He said I did not seem to hear him when he shook my shoulder. He wondered if I was walking and typing in my sleep. I said that must be the explanation. That was my total understanding at the time. It was not till my third year in college that I took Hull's seminar and began my research in hypnosis.

R: Would this be a practical naturalistic approach for others to learn somnambulistic activity and autohypnosis? One could set an alarm clock to awaken in the middle of sleep so one could carry out some activity that could be forgotten. Would this be a way of training oneself in dissociative activity and hypnotic amnesia?

E: Yes, and after a while they would not need the alarm clock. I have trained many students this way.

## **AUTOHYPNOSIS IN IDENTITY CRISIS**

E: I had a very bitter experience early in medical school. I was assigned to examine two patients. The first was a 73-year-old man. He was in every way an undesirable bum, alcoholic, petty thief, supported by the public his entire life. I was interested in that kind of life, so I took a careful history and learned every detail. He obviously had a good chance of living into his 80's. Then I went to see my other patient. I think she was one of the most beautiful girls I had ever seen—charming personality and highly intelligent. It was a pleasure to do a physical on her. Then, as I looked into her eyes, I found myself saying I had forgotten a task, so I asked to be excused and I would return as soon as possible. I went to the doctors' lounge and I looked into the future. That girl had Bright's disease, and if she lived another three months she'd be lucky. Here I saw the unfairness of life. A

73-year-old bum that never did anything worthwhile, never gave anything, often destructive. And here was this charming, beautiful girl who had so much to offer. I told myself, "You'd better think that over and get a perspective on life because that's what you're going to face over and over again as a doctor: the total unfairness of life."

*R:* What was autohypnotic about that?

*E:* I was alone there. I know others came in and out of the lounge but I was not aware of them. I was looking into the future.

*R:* How do you mean? Were your eyes open?

*E:* My eyes were open. I was seeing the unborn infants, the children who were yet to grow up and become such and such men and women dying in their 20's, 30's, 40's. Some living into their 80's and 90's and their particular values as people. All kinds of people. Their occupations, their lives, all went before my eyes.

*R:* Was this like a pseudo-orientation in time future? You lived your future life in your imagination?

*E:* Yes, you can't practice medicine and be upset emotionally. I had to learn to reconcile myself to the unfairness of life in that contrast between that lovely girl and that 73-year-old bum.

*R:* When did you realize you were in an autohypnotic state?

*E:* I knew I was as absorbed as when I wrote the editorials. I just let my absorption occur but I did not try to examine it. I went into that absorption to orient myself to my medical future.

*R:* You said to yourself, "I need to orient myself to my medical future." Then your unconscious took over and you experienced this profound reverie. So when we go into autohypnosis, we give ourselves a problem and then let the unconscious take over. The thoughts came and went by themselves? Were they cognitive or imagery?

*E:* They were both. I would see this little baby that grew up to be a man.

From this account we witness the spontaneous healing presence of profound reverie or autohypnosis during an identity crisis. A deep state of inner absorption which Erickson defines as trance was resorted to in order to cope with a problem that was apparently overwhelming for his conscious mind. This is another illustration of how autohypnosis and new learning are associated in Erickson's personal development.

## **AUTOHYPNOSIS DURING EXPERIMENTAL AND CLINICAL TRANCE WORK**

*E:* In doing experimental hypnotic work with a subject in the laboratory I would notice we were all alone. The only thing present was the subject, the physical apparatus I was using to graph his behavior, and myself.

*R:* You were so focused on your work that everything else disappeared?

*E:* Yes, I discovered I was in a trance with my subject. The next thing I wanted to learn was, could I do equally good work with reality all around me, or did I have to go into trance. I found I could work equally well under both conditions.

*R:* Do you tend to go into autohypnosis now when you work with patients in trance?

*E:* At the present time if I have any doubt about my capacity to see the important things I go into a trance. When there is a crucial issue with a patient and I don't want to miss any of the clues, I go into trance.

*R:* How do you let yourself go into such trance?

*E:* It happens automatically because I start keeping close track of every movement, sign, or behavioral manifestation that could be important. And as I began speaking to you just now, my vision became tunnel-like and I saw only you and your chair. It happened automatically, that terrible intensity, as I was looking at you. The word "terrible" is wrong; it's pleasurable.

*R:* It's the same tunnel vision as sometimes happens when one does crystal gazing?

*E:* Yes.

Erickson now recounts a most amazing instance of when he went into trance spontaneously during the first sessions of his therapeutic work with a well-known and rather domineering psychiatrist from another country who was an experienced hypnotherapist. Erickson explains that he felt overwhelmed by his task but approached his first session with the expectation that his unconscious would come to his aid. He recalls beginning the first session and starting to write some notes. The next thing he knew he was alone in his office; two hours had passed, and there was a set of therapy notes in a closed folder on his desk. He then recognized he must have been in an autohypnotic state. Erickson respected his unconscious enough to allow his notes to remain unread in the closed folder. Spontaneously, without quite knowing how it happened, he went into a trance in the same way for the next 13 sessions. It wasn't until the 14th session that the psychiatrist-patient suddenly recognized Erickson's state. He then shouted, "Erickson, you are in trance right now!" Erickson was thus startled into normal awake state. He remained normally awake for the rest of the sessions. Erickson's

profound respect for the autonomy of the unconscious is indicated by the fact that he never did read the notes he wrote while in autohypnotic trance during those first 14 sessions. The junior author recently looked at those faded pages and found they were nothing more than the typical notes a therapist might write.

On a more recent occasion Erickson was helping Dr. L experience a visual hallucination for the first time in trance. As Erickson looked at the door to his waiting room, where Dr. L was hallucinating a long hall and orchestra, Erickson also began to hallucinate it. When they later compared notes on their visions, they had an amusing dispute about just exactly where the various orchestra members were seated.

From these examples we gain a perspective of the range of autohypnotic experiences Erickson has had with his patients. A cardinal feature of all such experience is that he is always in complete rapport with the patient. He is never dissociated and out of contact with the patient. Autohypnotic trance usually comes on spontaneously and always enhances his perceptions and relations with the patient. Trance is an intensely focused attention that facilitates his therapeutic work.

## **THE CONSCIOUS AND UNCONSCIOUS IN AUTOHYPNOSIS**

Dr. H visited Erickson to learn how to use autohypnosis.

*E: You don't know all the things you can do. Use autohypnosis to explore, knowing you are going to find something that you don't know about yet.*

*H: Any way I can intensify my autohypnotic training?*

*E: No way you can consciously instruct the unconscious!*

*H: Is there any way you can consciously instruct my unconscious?*

*E: I don't want to. And I shouldn't, for the simple reason that you have to do things in your own way and you don't know what your way is. Now Mrs. Erickson goes into autohypnosis very deeply, but she insists on keeping her eyes open. Betty Alice likes to sit down and kick off her shoes, close her eyes, and levitate her hand to her face. Roxie, no matter what position she is in, just closes her eyes. We all have our own patterns.*

*H: I'd like to try to go deeper. Can I do that by myself?*

*E: You can go as deeply in the trance as you wish; the only thing is that you don't know when. In teaching people autohypnosis I tell them that their unconscious mind will select the time, place, and situation. Usually it's done in a much more advantageous situation than you consciously know about. I gave a resident in psychiatry those instructions and she went into autohypnosis on several occasions. Once she went into town and had breakfast with a psychologist, took a bus, met*

some high school friends she hadn't seen for years, went shopping with the psychologist—and he didn't know she was in a trance. She came back to the hospital and finally awakened standing in front of the mirror putting on her hat to go out. Then she noticed that the clock said 4 P.m. and the sun was coming in the westerly windows. That really scared her. She had picked up her train of thought from the morning, when she stood in front of the mirror putting on her hat, and she reawakened in that same position. She then phoned me and came over and wanted to know what to do about it. I suggested her unconscious ought to decide. So she went into a trance and told me what she wanted to do. She wanted to recall in order of time everything except the identity of her purchases. So she relived that day. Then I asked her to guess the identity of her purchases. She guessed she had bought all the things on her shopping list. But when she went home to check, she found that she bought all the things she had *formerly* wanted to purchase but had always forgotten.

Another time she presented a case conference to the professional staff without anyone realizing she was in trance. Another time she presented in front of the library club and found herself going into trance. Two visitors unexpectedly walked in, and I knew she would not see them or hear them. When one of them asked a question, I knew she would not hear it, so I got up and said, "I guess you did not hear Dr. X ask . . ." I knew she would hear my voice, and when I said "Dr. X" she was able to see him. I also mentioned Dr. Y's name so she could see him also. When the meeting was over, she thanked me for bringing them to her awareness. She said, "I forgot to make provision for unexpected visitors." Every time you go into trance you go prepared for all other possibilities.

*R:* The conscious ego cannot tell the unconscious what to do?

*E:* That's right!

*R:* Yet that's why people want to use autohypnosis. They want to effect certain changes in themselves. When you use autohypnosis to relieve your pain, you go into trance and your unconscious cooperates with your wish to be free of pain.

*E:* Yes.

*R:* The unconscious can take a general instruction like "Relieve the pain." But the unconscious does not follow a specific instruction about how to do it exactly.

*E:* That's right. I have the thought, "I'd like to get rid of this pain." That's enough!

*R:* It's enough to enter trance with the thought: "How do I lose this weight?" "How do I give up smoking?" "How do I learn more efficiently?" These are effective ways of relating to the unconscious. You simply ask a question and let the unconscious be free to find its own way?

*E:* Yes. Now why should you know you've been in an autohypnotic trance?

*R:* The conscious mind wants to know and be able to validate the experience.

*E:* [E gives example of a child being unable to solve an arithmetic problem but then solving it in a dream or finding it very easy to do in the morning. Apparently the unconscious worked on it while the conscious mind was asleep.] You go into autohypnosis to achieve certain things or acquire certain knowledge. When do you need that knowledge? When you have a problem with a patient, you think it over. You work out in your unconscious mind how you're going to deal with it. Then two weeks later when the patient comes in, you say the right thing at the right moment. But you have no business knowing it ahead of time because as surely as you know it consciously, you start to improve on it and ruin it.

*R:* You really believe in a creative unconscious!

*E:* I believe in a different level of awareness.

*R:* So we could say the unconscious is a metaphor for another level of awareness, a metalevel?

*E:* I can walk down the street and not have to pay attention to the stoplight or the curb. I can climb Squaw Peak and I don't have to figure out each step.

*R:* Those things are being handled automatically by other levels of awareness.

Erickson's insistence on the separation of consciousness and the unconscious in autohypnosis presents a paradox: we go into autohypnosis in order to achieve certain conscious goals, yet the conscious mind cannot tell the unconscious what to do. The conscious mind can structure a general framework or ask questions, but it must be left to the autonomy of the unconscious as to how and when the desired activity will be carried out. Examples of how this takes place with pain relief are as follows:

### **AUTOHYPNOSIS FOR PAIN RELIEF: THE SEGMENTALIZED TRANCE**

*E:* Yesterday I went into the house at noon to go to bed. I had to get rid of that agonizing pain here [in his back]. On my way to bed I asked my wife to prepare some grapefruit for me. The next thing I knew was that I went out and ate the grapefruit and rejoined you here in the office to continue our work. It was only then that I realized I did not have that horrible pain.

*R:* What did you do? Did you use autohypnosis to get rid of the pain?

*E:* I lay down on the bed knowing I'd better start to use autohypnosis in some way. But I don't know how I used it to get rid of the pain.

*R:* I see, it is a specific trance for that pain only.

*E:* It's a segmentalized trance.

*R:* Tell me more about that segmentalized trance.

*E:* S, with whom we worked yesterday, said her arms were numb. Not the rest of her body, only her arms. How do you get your arms numb? You segmentalize.

*R:* And the segmentalizing goes along with your conception of your body and not the actual distribution of sensory nerve tracts.

*E:* That's right. Pain is only part of your total experience, so in some way you must separate it off from your total experience. The pain was pretty agonizing here when I was in the office, so I went to bed with the intention of losing the pain. Then I forgot about losing it. When I came out here again, I suddenly realized I did not have the pain anymore.

*R:* Between lying on the bed and later eating the grapefruit the pain was somehow lost. But you don't know how or exactly the moment when.

*E:* That's right. I don't know how or exactly when, but I *knew* it would be lost. In losing it you also lose awareness that you did have pain.

*R:* In using autohypnosis you can tell yourself what you want to achieve but—

*E:* Then you leave it to your unconscious.

*R:* You cannot continue to question, "How am I going to lose it?" or think you can lose it consciously. This is very important in the use of autohypnosis. You can tell yourself what you want to achieve, but just exactly how and when it is achieved you have to leave to the unconscious. You must be content not to know how it is achieved.

*E:* Yes, that's right, because you can't know how it's achieved without keeping it with you.

*R:* As long as you are obsessively thinking about the pain, it is going to be there. You have to dissociate your conscious mind from the pain associations.

*E:* You must also have had an analogous experience such as this. [Erickson here details an example of how he would prepare a speech in his mind while driving to a conference. He could drive through the most complicated and troublesome traffic competently yet not remember a bit of it later when he found that he had

arrived at the conference, since his mind had been occupied with the speech he was preparing.]

*R:* So there was a dissociation in your mind: part of you was automatically driving and another part preparing your speech.

The classical role of dissociation and distraction are clear in these examples together with Erickson's lack of intellectual insight about exactly how or when pain relief is achieved. It is an unconscious process. Talented and experienced as he is, however, Erickson still has difficulties, as is indicated in the following comments by his wife Elizabeth Erickson (EE).

*EE:* The unconscious may know more than the conscious mind, and should be left to develop its own learnings without interference, but it's not always plain sailing, and it may go about things in the wrong way.

Some of MHE's experiences with pain control have been trial-and-error, with a good deal of *error*. For example, there have been many long weary hours spent when he would analyze the sensations verbally, muscle by muscle, over and over, insisting on someone (usually me) not only listening but giving full, absorbed attention, no matter how late the hour or how urgent other duties might be. He has absolutely no memory of these sessions, and I still don't understand them. I feel they were blind alleys, but perhaps they may have involved some unconscious learnings. Then again, maybe not. The reason I mention this is that I think many people might get discouraged when the unconscious gets lost temporarily in a blind alley. The message is "Hang in there. Eventually it will work through."

## **DISTRACTION, DISPLACEMENT, AND REINTERPRETATION OF PAIN**

*E:* At least for me physiological sleep will cause ordinary hypnosis to disappear. That means you should put your patients in a trance with instructions to remain in a trance until morning. In physiological sleep I simply let loose of the hypnotic frame of reference. I may awaken with pain, and I've got to reorient my frame of reference to a state of relaxation, a state of comfort, a state of well-being into which I am able to drift off into comfortable sleep. It may last for the rest of the night. Sometimes it may last no longer than two hours, so I'm awakened and must reorient to comfort. Recently the only way I could get control over the pain was by sitting in bed, pulling a chair close, and pressing my larynx against the back of the chair. That was very uncomfortable: But it was discomfort I was deliberately creating.

*R:* It displaced the involuntary pain?

*E:* Yes, I drifted into sleep restfully; then I would awaken with a sore larynx.

*R:* My goodness! Why did you choose this unusual way of causing yourself pain?

*E:* Voluntary pain is something that is under your control. And when you can control pain, it's much less painful than involuntary pain. You know you can get rid of it.

*R:* It gets rid of the future component of pain (Erickson, 1967). You get rid of a lot of pain of displacement and distraction.

*E:* Right! Distraction, displacement, and reinterpretation.

*R:* Reinterpretation; can you give me an example of how you've used that?

*E:* Okay. I had very severe shoulder pain, and my thought was I didn't like the arthritic pain. You might call it a sharp, cutting, lancinating, burning pain. So, I thought of how a red hot wire would feel just as sharp and burning. Then it suddenly felt as if I really did have a hot wire there! The arthritic pain had been deep in the shoulder, but now I had a hot wire lying across the *top* of the shoulder.

*R:* So you displaced the pain slightly and reinterpreted it.

*E:* Yes, I displaced my attention so I was still having pain, but I didn't feel it all through the shoulder joint.

*R:* That was a voluntary reinterpretation, so it was more tolerable.

*E:* It is more tolerable, and then I got bored with it and finally forgot it. You can study that sensation only so long. When you've exhausted all that you can think about it, you finally lose the pain sensations. It wasn't until about four hours later that I recalled that I had had the hot wire sensation there. I couldn't recall just when I lost it.

*R:* So you make good use of forgetting too.

*E:* One can always forget pain. One of the things I don't understand about patients is why they continue to keep their tension and pain.

*R:* Yes, by focusing attention on it they are actually helping it along.

## ***UTILIZING EARLY MEMORIES TO REPLACE CURRENT PAIN***

*E:* I get myself into a very awkward position on the bed so I cannot twitch too much. The twitching in my arms and legs and head jarred and aggravated me because I was having stabbing, lancinating, cutting pains. First here and there, very short. Overall body discomfort. I was lying on my stomach with my feet elevated and my legs crossed. My right arm was under my chest, immobilizing

me. I was recovering the feeling of lying prone with my arms in front of me, head up and looking at that beautiful meadow as a child. I even felt my arm short as a child's. I went to sleep essentially reliving those childhood days when I was lying on my stomach on the hill overlooking the meadow or the green fields. They looked so beautiful and so blissful and so peaceful. Or I see woods and forest or a slowly running stream of water.

*R:* You tap into those internal images from childhood when your body was in fact sound and comfortable. You thereby utilize the ideomotor and ideosensory process associated with those early memories to enhance your current comfort.

*E:* And when I was just learning to enjoy the beauty of nature. But an inactive beauty. It was the gentle movement of the grass in the breeze, but the grass itself was not putting forth the effort.

*R:* That image of a lack of self-directed activity led to a corresponding peacefulness within you.

*E:* Yes, and that filled my mind entirely. Then when I later came out here to see a patient, I let my intensity of observation take over completely in working with her.

*R:* You continued to distract yourself so the pain did not have a chance to recapture your consciousness. When you fill your mind with those early childhood memories, what is actually happening? Do you feel you are reactivating those associative processes in your mind and, therefore, that simply displaces your current body pain?

*E:* Yes, and from a period of my life that is not very well informed, a simple and unsophisticated period. It allows a complete regression. I would have thoughts of my father and mother as they were *then!* Then I could have my own early feelings of being on the hill on the north side of the barn, etc.

*R:* And these feelings replaced the painful sensations you were having today?

*E:* Yes, I'm a visual type, so I use visual memories. [Erickson goes on to explain how he first explores a patient's early memories to determine whether they are predominantly visual or auditory. He then utilizes these predispositions in later trance work. One patient, for example, was able to distract himself from pain by focusing on the memories of the sound of crickets which he enjoyed in his childhood.]

## **THE WOUNDED PHYSICIAN**

*R:* Later, when you were 51, you incurred polio again. How did you help yourself?

*E:* By that time I could relegate things to my unconscious because I knew I had gone through all that before. I would just go into trance saying, ‘Unconscious, do your stuff.’ Learning to write with my left hand the first time was very laborious. The second time I got polio my right hand was knocked out again, and I found I had to use my left, which I had not used since around 19.

*R:* The sense memory exercises at 17 through 19 really helped you recover the use of your right hand and your ability to walk. When you were again stricken with polio at the age of 51, you had this base of experience to draw upon and left it up to your unconscious in autohypnotic trance.

*E:* At the present time (age 73) I have tried repeatedly to write with my left hand. [Erickson demonstrates how he now writes by holding the pen with his right hand but guides that hand with his stronger left hand.] I’m currently holding on very carefully to everything I can do with my right hand because I’d better keep whatever use I have as long as possible.

*R:* I see, that’s why I see you peeling potatoes in the kitchen. You certainly are an example of the archetype of the wounded physician who learns to help others through his work in healing himself. This has been the story of your life.

### **THE PROBLEM OF FEAR IN AUTOHYPNOSIS: THE NATURALISTIC APPROACH TO AUTOHYPNOSIS**

*R:* Yesterday afternoon, after talking with you about autohypnosis, I let myself experience a trance by lying down comfortably and not giving myself any directions; I wanted to follow your advice and let my unconscious take over. After awhile I had a dream or dreamlike fantasy that someone was carefully pulling my floating, immobile body to the edge of a pool. I felt a bit sheepish because I wasn’t drowning but had let myself get into a state where I could not move my body. Then I suddenly realized I was lying there on the couch of your waiting room in a trance and *I really couldn’t move my body*. I felt a flash of oppressive fear but then tried to reassure myself that I was okay and actually experiencing a genuine body catalepsy in a deeper trance than I had ever experienced before. I tried to give myself some sensible suggestions, especially the idea that I’d be able to return to this deep state for further hypnotic work. But I guess I was simply too afraid. My mind kept running on and on with an irrational fear about what a terrible thing it would be if I really could not recover movement. After a minute or two I decided I would focus all my attention on the little finger of my right hand and just move it ever so slightly to reassure myself and as the first stage to waking up. I did just that, but now I’m sort of ashamed that after all my years of training with you, I allowed myself to fall into fear so I could not tolerate that profound trance for more than a minute or two.

*E:* The fright stopped you from exploring somewhat as follows: ‘Here is a chance to find my body. How do I find my body? I know I’ve got a little finger. Next to it is another finger. If I move my little finger, I can move the next finger. And then I can progressively move all the fingers of that hand. And I know I have another hand. Shall I start moving the little finger of that hand first, or the thumb? Now what next do I want to do? Shall I start with my toes? Do I have to start with my toes? What of my sensory experience? What else can I explore in this state?’

*R:* What’s the value of this step-by-step exercise?

*E:* It gives you an opportunity to learn to dissociate any part of your body. If you don’t get frightened, it gives you a chance to start examining the autohypnotic state.

*R:* So once you somehow naturally fall into the autohypnotic state, you begin to experiment with it. It can be a study of dissociation. You can recover the movement of a few fingers and a hand and then let them go again (dissociate them) as you experiment with the other hand. You practice recovering mobility and sensation of different parts of your body and then dissociating them again as you go on to experiment with another part of your body. That could be marvelous training for hypnotic anaesthesia via dissociation. You can also experiment with altering your sensations and perceptions: warmth, cold, color, sounds, etc. That’s a naturalistic approach to training yourself in autohypnosis.

*E:* That’s right! When I awakened in a hotel room on one occasion by opening one eye, I wondered where I was because I didn’t recognize anything in the room. I thought, ‘I am curious to know if I can close this eye and recognize this room with the other eye.’ And I did! Then I closed that eye and opened the first eye, and I was back to not knowing where I was.

*R:* Knowing where you were was dependent on which eye you had opened. That was a marvelous experiment with dissociation!

*E:* When you fall into these states, you explore them and enjoy it!

*R:* It’s incredible that cognition and knowing could be associated with one eye and not the other. This is a very unusual form of dissociation.

*E:* You can eat something and blot out all recognition of what you’re eating. And then you can let yourself discover, ‘Oh yes, I’ve eaten this before.’ You can develop an amnesia for any previous experience of eating that thing and then discover bit by bit what is familiar about it. Sometimes you recognize it by the texture, sometimes by odor and taste. You isolate each recognition factor.

*R:* This is an exercise in dissociation and sensory isolation that anyone could practice while awake and then later utilize that skill while in trance to develop it even further.

*E:* You can learn to prolong your hypnagogic and hypnopompic states (twilight zone between going to sleep and waking up) and experiment with yourself in these states. You can awaken from a dream and then go back to sleep to continue that dream. [Erickson gives an example of how, while taking a nap, he dreamed his wife was leaning against him whispering sweet things. He then awakened but still had the hallucination feeling of her body pressing comfortably against his elbow. He could no longer see or hear her as in the dream, but he took this occasion to experiment with keeping, losing, and shifting the warm and comfortable pressure of her body against his elbow. Gradually the comfortable feeling extended itself up to his shoulder, and Erickson then spent some time enjoying this feeling in his shoulder, letting go of it and then having it come back. On future occasions when he was troubled with arthritic pain in that shoulder, he let himself go into autohypnosis to receive this warm, comfortable pressure which would then gradually replace the arthritic pain. This is a clear example of how he utilized his own psychodynamic processes from a dream in a naturalistic manner.]

*R:* These would all be exercises in training the conscious mind to become more tolerant of the interface between consciousness and the unconscious. Gradually it can then develop certain skills in interacting with the unconscious in a way that could lead to the experience of all the classical hypnotic phenomena as well as other altered states. The conscious mind cannot control the process but it can relate to the unconscious in a creative manner. It's always an exploration, an adventure to be enjoyed, rather than a job to be done. The conscious mind can never be sure of the results; it's really the dependent partner. But once the conscious mind has developed certain skills in relating to the unconscious, it can use these skills in an emergency to influence certain sensory-perceptual and behavioral processes or whatever.

## **BEHAVIORAL ENRICHMENT IN AUTOHYPNOSIS**

*E:* Why do things in just one way? [Erickson now gives numerous examples of how members of his family learned different ways of doing things: reading upside down, under water, etc.]

*R:* With autohypnosis we are attempting to learn greater flexibility in our functioning. We don't want to limit ourselves to one Generalized Reality Orientation (Shor, 1959). Your suggestion is that autohypnosis can be used to develop greater flexibility in the way we relate to our own behavior, sensory-perceptual processes, and cognition. We can alter and, in part, recreate our experience on practically any level. We have just begun learning how to do this. Psychedelic drugs and classical hypnotic work are relatively crude approaches we

have accidentally stumbled upon in the past. We are actually engaged in sensory-perceptual and behavioral enrichment in our explorations with autohypnosis. In other words, trance is needed for new learning.

*E:* We lay down new pathways.

*R:* Trance helps depotentiate our old programs and gives us an opportunity to learn something new. The only reason why we cannot produce an anaesthesia at will, for example, is because we don't know how to give up our habitual generalized reality orientation that emphasizes the importance of pain and gives it primacy in consciousness. But if we allowed young children to experiment with their sensory perceptual processes in a fun way, they might easily develop skills with anaesthesia that could be very useful when they needed it. This would be an interesting piece of research, indeed.

### ***SELF-NALYSIS AND MEMORIES IN AUTOHYPNOSIS: THE IMPORTANCE OF FORGETTING AND NOT KNOWING***

*E:* If you want to do autohypnosis, do it privately. Sit down in a quiet room and *don't decide what you are going to do*. Just go into a trance. Your unconscious will carry out the thing that needs to be done. But you can set an alarm to awaken by because you don't know yet how to measure time with your unconscious mind. And you ought to have a good time. And bear in mind that comic strip of Mutt and Jeff, where Mutt looked in all his pockets but one for his wallet, because if it wasn't there, he was afraid he would drop dead. You can be free to inquire into yourself instead of dropping dead when you discover something you don't want to know about yourself. Just *forget* it. You don't know just how much your unconscious wants you to know.

*R:* Have you used autohypnosis for memory problems?

*E:* You can go into autohypnotic trance for a memory problem. You may want to recall where you put that letter. Whose birthday have I forgotten? You may begin with hand levitation, but you don't know when you lose your hearing, your vision, your sense of your hand. Then spontaneously there comes to mind the memory you are searching for. [Erickson gives other examples of how he will ask his wife, who is reading, for the name of a certain poet. She keeps on reading and in a few minutes the name pops into her mind. Another colleague assigns her memory problems to a "little man up there in my head" and in a few minutes he gives her the answer. Others use a conscious associative approach recalling the circumstances surrounding the memory or fact they want to recall.] Years ago, after examining a house with lovely date trees which we found satisfactory for our family, I knew I had another reason for buying it. I knew it was a very strong reason but I did not know what it was. I spent a lot of time trying to find it. I bought the house in April and in September I got a sudden urge to find out why I bought the house. So I went into autohypnosis, but nothing came except a view of

myself in grammar school in the fourth grade. I knew that must be important, but why? On a subsequent day I was in the backyard and then I recalled that I made a very solemn promise to myself in the fourth grade. I was reading a geography book with an illustration of a boy climbing a date tree. I promised myself that when I got to be a man I would climb a date tree. And I did climb that tree and pick those dates.

*R:* The memory came in two stages.

*E:* During trance I saw myself as a boy in the fourth grade looking at a book, but that did not go far enough. I was looking for the *reason* but not the *identity*. I bought the house to satisfy a fourth-grade boy's wish, so in a trance I just saw that fourth-grade boy sitting at his desk. It wasn't until I sat in the backyard looking at the trees that the whole thing came to me.

This example illustrates at least three factors of importance in memory work with autohypnosis. (1) There is frequently a prime time for going into autohypnosis when one feels an "urge" to find something. That "urge" is actually a means by which the unconscious is letting consciousness know that something is available at this time. (2) The unconscious is very literal. In this example it showed Erickson the "identity" in a fourth-grade boy but not the "reason" or why of the fourth-grader. (3) Finally, the unconscious takes time: between April and September to come forth with the first half of the reason and then another few days until circumstances were just right for consciousness to receive the why of it. Consciousness is not always aware of all the contingencies of such memory recall. Because of this much patience is required as it learns to cooperate with the dynamics of unconscious processes. Because the conscious mind rarely recognizes what is involved, it is very important that we give our unconscious as much freedom as possible to work things out. When we do make suggestions, they should be as broad as possible (Erickson, Rossi, Rossi, 1976).

## **NIRVANA OR AUTOHYPNOSIS AS A DISSOCIATION FROM ALL SENSE MODALITIES**

On one occasion Erickson was doing some experimental work with K on stopped vision (Erickson, 1967), wherein she experienced being in "the middle of nowhere." Erickson recalled the following:

*E:* I was in the backyard a year ago in the summertime. I was, wondering what far-out experiences I'd like to have. As I puzzled over that, I noticed that I was sitting out in the middle of nowhere. I was an object in space.

*K:* There you have it: the middle of nowhere.

*E:* I was just an object in space. Of all the buildings I couldn't see an outline. I couldn't see the chair in which I was sitting; in fact, I couldn't feel it.

*R:* You spontaneously experienced that vision?

*E:* It was the most far-out thing I could do!

*R:* That was the most far-out thing you could do?

*E:* You can't get more far-out than that!

*R:* It just happened to you as you were wondering about what you could do?

*E:* Yes.

*R:* An unconscious responding?

*E:* And that was my unconscious' full response.

*R:* I see; you can't get more far-out than that.

*E:* What more far-out could happen?

*K:* You were just floating or just a nothingness?

*E:* I was just an object and all alone with me was an empty void. No buildings, earth, stars, sun.

*K:* What emotions did you experience? Did you——curiosity or fear or apprehension?

*E:* It was one of the most pleasing experiences. What is this? Tremendous comfort. I knew that I was doing something far-out. And I was really doing it! And what greater joy is there than doing what you want to do? Inside the stars, the planets, the beaches. I couldn't feel the weight. I couldn't feel the earth. No matter how much I pushed down my feet, I couldn't feel anything.

*R:* That sounds like a spontaneous experience of nirvana or samadhi wherein Indian yogis say they experience "the void." You feel that is so?

*E:* Yes. The far-out experience of negating all reality-related stimuli. *R:* That's what the yogis train themselves to do.

*E:* Yes, just negating the stimuli from the reality objects.

*K:* You found that pleasurable?

*E:* I always find when I can do something, it's pleasurable.

## **DISCUSSION**

From his earliest memories and spontaneous initial experiences with altered states, Erickson developed a precocious attitude of wonderment about the relativity of human experience. His own constitutional problems forced an early recognition of individual differences in sensory-perceptual functioning and the surprising limitations in the world-view of most of the people around him. The motivation for his initial studies in hypnosis with Clark Hull in 1923 thus came from very personal sources and life experiences.

Erickson's earliest autohypnotic experience centered around a process of learning; it was a creative moment of insight when he finally saw the difference between a 3 and the letter m in a hallucinatory flash of blinding light. In this early experience we see the beginning of a pattern wherein altered states and new learning are usually associated. In this sense Erickson is an original in the history of hypnosis; his earliest motivation came from personal sources having to do with problems of learning and altered modes of sensory-perceptual functioning rather than the traditional interest in psychopathology which was characteristic of earlier workers. From these earliest experiences came his understanding of autohypnosis or trance as an altered state in which important, internal sensory-perceptual or cognitive processes could so occupy consciousness that our ordinary, everyday reality (the generalized reality orientation) could be "blocked" out, eclipsed, or depotentiated.

In his earliest experiences with self-rehabilitation by recalling early sense memories to help him relearn how to use his muscles, we witness his gradual discovery of some of the basic principles of hypnosis. Recalling early sense memories gave rise to ideomotor and ideosensory processes that could be the basis for relearning functions lost through illness. This is actually the origin of Erickson's *utilization* approaches to inducing trance as well as evoking and maximizing behavioral potentials in the therapy of organic and psychological problems. When he says, "Slowly I learned that if I could think about walking and fatigue and relaxation, I could get [pain] relief" he was discovering for himself how relaxation and the fixation of attention on inner realities could replace maladaptive or painful aspects of the generalized reality orientation.

Erickson's emphasis on real sense memories rather than imagination is reminiscent of Bernheim's (1957) basic conception of suggestion as an enhancement of ideomotor and ideosensory processes whereby there is an "unconscious transformation of the thought into movement . . . sensation, or into a sensory image." Bernheim gives illustrations of how such ideodynamic processes operate by evoking "memory-images" within the subjects, which are then reexperienced as the suggested hypnotic phenomenon. This use of the patient's repertory of memory images and experiential learnings is the basis of Erickson's *utilization theory of hypnotic suggestion* (Erickson and Rossi, 1976). The utilization of the patient's previous learnings in hypnotic responsiveness has been discussed by Weitzenhoffer (1953) and has been recently rediscovered experimentally (Johnson and Barber, 1976). Further research will be needed to determine the relative contributions made by utilizing the patient's repertory of memories and learnings versus pure imagination (Sheehan, 1972) in hypnotic responsiveness. We expect that certain aspects of trance induction, deepening, and involvement may be a function of imagination, but specific ideodynamic responses may be more a function of whatever

accumulated learnings and memories the patients can utilize to mediate the suggested phenomenon.

Erickson's accidental activation of what appears to have been a somnambulistic state during which he wrote his student editorials was another personal source of his understanding of trance. The amnesia that one usually has for somnambulistic activity thereafter became an important criterion for deep trance work and some forms of hypnotherapy (Erickson and Rossi, 1974). These personal somnambulistic experiences are also the basis on which he has trained others in what we may term the "naturalistic approach" to autohypnotic experience.

Erickson likes to emphasize that consciousness does not know how to do autohypnosis; consciousness can, only set the stage for it to happen. The major difficulty in learning autohypnosis is in the desire of the conscious mind to control the process. For autohypnotic states to develop, consciousness must first give up control and lose itself so the unconscious can become manifest. The paradox of autohypnosis is that we go into trance because we are interested in controlling or at least altering certain aspects of behavior that are usually autonomous or unconscious in their functioning. Yet, Erickson insists, the conscious mind cannot control the unconscious. The paradox is resolved by (1) preparing ourselves to experience trance by, for example, arranging a period in which we can be comfortable and undisturbed, then allowing the unconscious to lead us as it will. (2) Once the conscious mind recognizes an altered state has been achieved (by the presence of spontaneous alterations of sensory, perceptual, motor, or cognitive processes), however, it can begin to experiment with those alterations by enhancing and diminishing them, transforming them in some way, relocating them, etc. In this way the conscious mind is engaged in a new pattern of learning: how to recognize and tolerate altered modes of functioning and eventually even modify and control them. The extent to which practitioners of yoga and other spiritual traditions are able to modify and transform their inner experience provides us with illustrations of what is possible with sufficient sensitivity to our altered states and awareness of our physiological functions. We can theoretically learn to accomplish with autohypnosis all those alterations that have been facilitated by the technology of biofeedback (Overlade, 1976). In this sense autohypnosis becomes a means of extending or broadening the range of human experience. It becomes a means of exploring and maximizing human potentialities. This exploration can be enhanced by an attitude of expectation and respect for the potentials of the unconscious and the new modes of functioning that can be learned. Consciousness can never be certain of what is going to be experienced, but it can learn to interact constructively with whatever altered mode of functioning the unconscious makes available.

A major difficulty in this new learning is fear, a natural fear that comes about whenever our Generalized Reality Orientation (Shor, 1959) is interrupted and restructured. Erickson developed his approaches through trial and error, and as we have seen from his wife's comments, there may have been much tedious effort lost in blind alleys where the unconscious or, rather, the creative interaction between the conscious and unconscious, went astray. Much time and effort can be wasted and less resolute individuals may become discouraged. Because of this it is wise to have an experienced guide monitor

one's autohypnotic work. This can take place within the traditional formats of psychotherapy, specialized workshops, or experimental programs where careful records are kept and guidance is available (Fromm, 1973, 1974).

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# **Historical Note on the Hand Levitation and Other Ideomotor Techniques**

Milton H. Erickson

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In the spring of 1923 at the University of Wisconsin, interest in the writer's experimental work on hypnosis was expressed by Clark L. Hull, Ph.D., Associate Professor of Psychology. The suggestion was offered that the writer continue his studies throughout the summer and then report upon them before a postgraduate seminar on hypnosis to be conducted by the psychology department.

All of this was done, and the first formal postgraduate course in hypnosis was initiated at the University of Wisconsin in September, 1923, probably the first one in the United States. This seminar was devoted to a systematic examination and discussion of the summer's experimental procedures and findings reported upon or demonstrated before the group. Also presented was additional work initiated and performed by the writer during that academic year.

During that summer of 1923, among other things, the author became interested in automatic writing, first secured from subjects in a trance state and subsequently by posthypnotic suggestion. This gave rise to the possibility of using suggestions conducive to automatic writing as an indirect technique of trance induction for naive subjects. Although successful, it proved to be too slow and laborious an induction technique in most instances. It was modified by suggesting to the subjects that, instead of writing, the pencil point would merely move up and down on the paper or from side to side. The vertical or horizontal lines thus secured were later found to be an excellent approach to the teaching of automatic writing to difficult subjects.

Almost from the first trial it was recognized that the pencil and paper were superfluous and that the ideomotor activity was the primary consideration. Accordingly, the writer using his younger sister Bertha as a subject for the first time, induced a somnambulistic trance by a simple hand-levitation technique. Thereafter many variations of this original technique were devised, until it became apparent that the effectiveness of many supposedly different techniques of trance induction derived only from a basic use of ideomotor activity rather than from variations of procedure, as is sometimes naively believed and reported. Perhaps of all the many variations of ideomotor techniques of induction that may be devised, the more generally useful are (1) simple direct hand levitation, because of the possibility of visual participation, and (2) the slightly more complex rhythmical hand levitation, in which visual and memory participation frequently lead to the ideosensory response of auditory hallucinations of music and the development of a somnambulistic trance.

Another highly technical and complicated procedure of trance induction was developed that summer and repeated in many variations, but with no real understanding at that time of what was involved. A 16-year-old boy who regularly drove a milk wagon had never before been hypnotized. He was asked to sit quietly in a chair and silently review in his own mind every feeling throughout his body as he systematically recalled the events of the 20-mile milk route over which he regularly drove a team of horses. The further explanation was given that, even as one can remember names, places, things, and events, so could one remember body feelings of all sorts and kinds. This he was to do by sitting quietly in the chair with his eyes closed and imagining himself driving along the highway, feeling the reins in his hands and the motions of the wagon and of the wagon seat.

Shortly it was noticed that he was shifting his hands and body in a manner suggestive of the actual experience of driving a team of horses. Suddenly he braced his feet, leaned backward, and presented the appearance of pulling hard on the reins. Immediately he was asked, "What are you doing now?" His reply was, as he opened his eyes, "Going down Coleman hill." (The writer himself had often driven that same milk route in the same wagon and recognized the characteristic behavior of handling the team in going down that steep, tortuous hill!)

Thereafter, with his eyes open and obviously in a somnambulistic trance, although he continued to sit in the chair, the boy went through a long, slow process of seemingly driving the horses, turning now right, now left, and heaving with his shoulders as if lifting cans of milk, thus reliving largely the experience of actually driving the milk route. The writer's own experience with that same milk route permitted a ready recognition of the progress being made along the route.

However, at one particular stretch of the road where there were no farmhouses, the boy went through the motions of pulling on the reins and calling "Whoa!" He was told to "drive on" and replied "Can't." After many futile efforts to induce him to continue driving and always eliciting the same response of "Can't," he was asked why he couldn't. The laconic reply of "Geese" was given. The writer immediately recalled that on infrequent occasions in his own experience a certain flock of geese happened to choose the moment of the milk wagon's arrival to cross the highway in single file on their way to another pond, thus stopping traffic.

This first trance lasted several hours as the boy went through the events of the "trip," and it seemed impossible to break into and interrupt it. Not until he turned the horses into the home driveway could the trance be terminated.

This particular trip was repeated later in similarly induced trances with similar results. The boy was also asked to relive other trips, in none of which the geese happened to appear, but his neglect of the established practice of letting the horses rest at a certain customary spot was disclosed in one such reliving.

At the time of this work there was no recognition by the writer of kinesthetic memories and images as a trance-induction technique, but it led to a systematic and profitable investigation of the possibility of using any sensory modality as a basic process in inducing hypnotic trances.

During his first demonstration of the hand-levitation technique of trance induction to that 1923-1924 seminar group, a special finding was made by the writer of the spontaneous manifestation in a volunteer subject of hallucinated ideomotor activity. She had volunteered to act as a subject for a demonstration of what the writer meant by a "hand-levitation trance induction." While she and the group intently watched her hands as they rested on her lap, the writer offered repeated, insistent, appropriate suggestions for right hand levitation, all without avail. Silent study of the subject in an effort to appraise the failure of response disclosed her gaze to be directed into midair at shoulder level, and her facial expression and apparent complete detachment from her surroundings indicated that a deep trance state had developed. She was told to elevate her left hand voluntarily to the level of her right hand. Without any alteration of the direction of her gaze, she brought her left hand up to shoulder level. She was told to replace her left hand in her lap and then to watch her right hand "slowly descend" to her lap. When it reached her lap, she was to give immediately a full verbal report upon her experience. There resulted a slow downward shifting of her gaze, and as it reached her lap, she looked up at the group and delightedly gave an extensive description of the "sensations" of her hallucinatory experience, with no realization that she had actually developed her first known trance state, but with an amnesia for the reality of the trance experience as such, though not for the content.

She asked to be allowed to repeat her experience and promptly did so. This time the group watched her eye and facial behavior. Again there was no hand movement, but all agreed that she developed a somnambulistic trance immediately upon beginning to shift her gaze upward. This conclusion was put to test at once by demonstrating with her the phenomena of deep hypnosis. She was then aroused, and there followed an extensive discussion of "kinesthetic imagery" or "kinesthetic memories" as possible techniques of hypnotic induction. The writer was assigned the task of further experimental work on these ideas, to be reported at the next meeting.

That report, in brief, was simply that trances could be induced in both naive or experienced subjects by techniques based upon (1) the visualization of a motor activity such as hand levitation or by visualizing the self climbing up or down a long stairway, and (2) upon "remembering the body and muscle and joint feeling and sensations" of motor activity of many kinds. To this was added the report on the findings with the 16-year-old boy.

Approximately 15 years after these earlier studies on ideomotor techniques had been reported to the seminar group at the University of Wisconsin, another study was begun. This was initiated by the observation that, especially at lectures on controversial topics, there are those in the audience who will unconsciously slowly nod or shake their heads in agreement or disagreement with the lecturer. This observation was further enhanced by

noting that certain patients, while explaining their problems, will unwittingly nod or shake their heads contradictorily to their actual verbalizations. These informative manifestations suggested the possibility of utilizing this type of ideomotor activity as a hypnotic technique, particularly for resistant or difficult subjects, although it can also be used readily on naive subjects.

The actual technique is relatively simple. The explanation is offered to the subject that an affirmative or a negative answer can be given by a simple nod or shake of the head. Also, it is explained that thinking can be done separately and independently by both the conscious and unconscious mind, but that such thinking need not necessarily be in agreement. This is followed by asking some question phrased to require an answer independent of what the subject may be thinking consciously. Such a question is, "Does your unconscious mind think you will learn to go into a trance?" After being asked this type of question, the subject is told to await patiently and passively the answering head movement, which will constitute the answer of his "unconscious mind." A rapid or forceful response signifies a "conscious mind" reply. A slow, gentle head movement, sometimes not perceived by the subject, constitutes a direct communication from the "unconscious mind." With the response catalepsy develops, and a trance state ensues rapidly.

Or, as a simple variation, one can suggest that the levitation of one hand signifies the answer "yes," the levitation of the other, "no," the levitation of both, "I don't know," and then ask the above or a comparable question. The development of a trance state is concurrent with the development of levitation regardless of the significance of the reply. These techniques are of particular value with patients who want hypnosis, who could benefit from it, but who resist any formal or overt effort at trance induction and who need to have their obstructive resistances bypassed. The essential consideration in the use of ideomotor techniques lies not in their elaborateness or novelty but simply in the initiation of motor activity, either real or hallucinated, as a means of fixating and focusing the subjects' attention upon inner experiential learnings and capabilities.

# **Deep Hypnosis and Its Induction**

Milton H. Erickson

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## **GENERAL CONSIDERATIONS**

A primary problem in all hypnotic work is the induction of satisfactory trance states. Especially is this true in any work based upon deep hypnosis. Even the problem of inducing light trance states and maintaining them at a constant level is often a difficult task. The securing of comparable degrees of hypnosis in different subjects and similar trance states in the same subject at different times frequently constitutes a major problem.

The reasons for these difficulties derive from the fact that hypnosis depends upon interpersonal and intrapersonal relationships. Such relationships are inconstant and alter in accord with personality reactions to each hypnotic development. Additionally, each individual personality is unique, and its patterns of spontaneous and responsive behavior necessarily vary in relation to time, situation, purposes served, and the personalities involved.

Statistically, certain averages may be obtained for hypnotic behavior, but such averages do not represent the performance of any one subject. Hence they cannot be used to appraise either individual performances or specific hypnotic phenomena. To judge trance depths and hypnotic responses, consideration must be given not only to average responses but to the various deviations from the average that may be manifested by the individual. For example, catalepsy is a fairly standard form of hypnotic behavior, appearing usually in the light trance and persisting in the deep trance states. However, extensive experience will disclose that some subjects may never spontaneously develop catalepsy as a single phenomenon either in the light or deep trance. Others may manifest it only in the lighter stages of hypnosis, some only in the profound trances, and some only in the transition from the light to the deeper levels of hypnosis. Even more confusing are those subjects who manifest it only in relation to other types of hypnotic behavior, such as amnesia. However good an indicator of trance states catalepsy may be on the average, its presence or absence for any one subject must be interpreted entirely in terms of that subject's total hypnotic behavior.

Efforts have been made to solve some of these difficulties by developing special techniques for the induction and regulation of hypnotic trances, sometimes with little regard for the nature of hypnotic behavior. One of the most absurd of these endeavors, illustrative of a frequent tendency to disregard hypnosis as a phenomenon in favor of an induction technique as a rigidly controllable process apart from the subject's behavior, was the making of phonograph records. This was done on the assumption that identical suggestions would induce identical hypnotic responses in different subjects and at

different times. There was a complete oversight of the individuality of subjects, their varying capacities to learn and to respond, and their differing attitudes, frames of reference, and purposes for engaging in hypnotic work. There was oversight of the importance of *interpersonal relationships* and of the fact that these are both contingent and dependent upon the *intrapsychic* or *intrapersonal relationships* of the subject.

Even in so established a field as pharmacology a standardized dose of a drug is actually an approximation so far as the individual's physiological response is concerned. When thought is given to the difficulty of "standardizing" such intangibles as inter- and intrapersonal relationships, the futility of a rigid hypnotic technique "to secure controlled results" is apparent. An awareness of the variability of human behavior and the need to meet it should be the basis of all hypnotic techniques.

In the problem of developing general techniques for the induction of trances and the eliciting of hypnotic behavior, there have been numerous uncritical utilizations of traditional misconceptions of hypnotic procedure. The "eagle eye," the "crystal ball," strokings and passes, and similar aids as sources of mysterious force have been discarded by the scientifically trained. Yet the literature abounds with reports of hypnotic techniques based upon the use of apparatus intended to limit and restrict the subjects' behavior, to produce fatigue and similar reactions, as if they were the essential desiderata of hypnosis: Crystal balls held at a certain distance from the eyes, revolving mirrors, metronomes, and flashing lights are often employed as the major consideration. As a result, too much emphasis is placed upon external factors and the subjects' responses to them. Primarily, emphasis should be placed upon the intrapsychic behavior of the subjects rather than upon the relationship to externalities. At best, apparatus is only an incidental aid, to be discarded at the earliest possible moment in favor of the utilization of the subjects' behavior, which may be initiated but not developed by the apparatus. However much staring at a crystal ball may be conducive to fatigue and sleep, neither of these results is an essential part of the hypnotic trance. To illustrate: A number of subjects were systematically trained by a competent hypnotist to develop a trance by staring fixedly at a crystal ball held at a distance of six inches and slightly above the subjects' eye level. As a result of this conditioning, efforts to hypnotize them without a crystal ball were difficult and, in some instances, ineffectual. Personal experimentation with these subjects disclosed that having them simply imagine that they were looking at a crystal ball resulted in more rapid trance induction and more profound trance states. Repetition of this procedure by colleagues and students yielded similar results. Return to the actual crystal gazing resulted in the original slower and less profound trances characterized by greater dependence upon external factors.

Numerous experiments by the author and his colleagues in which experienced subjects watched silent pendulums or listened to soft music or to metronomes disclosed that imaginary aids were much more effective than actual apparatus. The same findings were obtained with naive subjects. Medical students were divided into two groups: One stared at a crystal ball and the other merely tried to visualize a crystal ball. The latter group achieved more rapid and better results. The experiment was repeated by having the second group listen to a metronome while the first group was instructed to depend upon

auditory imagery of a metronome. Again the imaginary aid proved the more effective. Numerous variations yielded similar results. The utilization of imagery rather than actual apparatus permits the subjects to utilize their actual capabilities without being hampered by an adjustment to nonessential externalities. This has been found true with experienced subjects as well as naive subjects, and in the whole range of imagery from visual to kinesthetic.

The utilization of imagery in trance induction almost always facilitates the development of similar or related more complex hypnotic behavior. For example, the subject who experiences much difficulty in developing hallucinations often learns to develop them when a trance is induced by utilization of imagery.

Subjective accounts from many subjects explaining these findings may be summarized as follows: "When I listen to the imaginary metronome, it speeds up or slows down, gets louder or fainter, as I start to go into a trance, and I just drift along. With the real metronome, it remains distractingly constant, and it keeps pulling me back to reality instead of letting me drift along into a trance. The imaginary metronome is changeable and always fits in with just the way I'm thinking and feeling, but I have to fit myself to the real one."

In this same connection mention should be made of findings in experimental and clinical work centering around hypnotically induced visual hallucinations. For example, a patient greatly confused about her personal identity was induced to visualize a number of crystal balls in which she could hallucinate a whole series of significant life experiences, make objective and subjective comparisons, and thus establish the continuity of her life, from one hallucinated experience to the next. With a real crystal ball the hallucinated experiences were physically limited in extent, and the changing and superimposition of "scenes" much less satisfying.

Another important general consideration in trance induction concerns the appreciation of time as a factor in itself. Traditionally, the mystic force of a single glance from the eagle eye is sufficient to induce hypnosis. This misconception has not really been discredited, since statements can be found in current literature to the effect that two to five minutes' time is sufficient to induce the profound neuro- and psycho-physiological changes of hypnosis. When administering a powerful drug, these same writers would wait a reasonable time for its effects. The expectation of practically instantaneous results from the spoken word indicates an uncritical approach which militates against scientifically valid results. Unfortunately, much published work has been based upon an unrecognized belief in the immediate omnipotence of hypnotic suggestions and a failure to appreciate that responsive behavior in the hypnotic subjects as in unhypnotized persons, depends upon a time factor. Hypnotic subjects are often expected, in a few moments, to reorient themselves completely psychologically and physiologically, and to perform complex tasks ordinarily impossible in the nonhypnotic state.

Subjects vary in respect to time requirements, and their time requirements vary greatly from one type of behavior to another and also in relation to their immediate frame of

reference. Some subjects who can develop visual hallucinations promptly may require a relatively prolonged time to develop auditory hallucinations. The presence of a certain mood may facilitate or hinder hypnotic responses. Incidental considerations may interfere with the development of hypnotic phenomena ordinarily possible for a subject. The fact that the author is a psychiatrist has more than once militated against subjects' readily developing auditory hallucinations.

Certain subjects can develop profound trances in a brief period of time and are capable of readily manifesting exceedingly complex hypnotic phenomena. However, critical study of such subjects frequently discloses a high incidence of "as if" behavior. Such a subject instructed, for example, to develop negative hallucinations for observers present will behave as if those persons were absent, accomplishing this primarily by avoidance reactions and inhibition of responses. If such behavior is accepted as valid and as the most that can be expected, the subject is likely to remain arrested at that level of functioning. If such subjects are given adequate time to reorganize their neuro- and psychophysiological processes, negative hallucinations can be developed which will withstand searching test procedures.

The ease with which a deep trance can be induced in a subject is too often uncritically accepted as a valid criterion of subsequent trance performances. Experience with many such subjects discloses a frequent tendency to return to a lighter trance state when given complicated hypnotic tasks. Such subjects for various reasons are thereby endeavoring to ensure adequate functioning by enlisting the aid of conscious mental processes. Hence unreliable and contradictory experimental findings are frequently obtained when apparently the experimental procedure was fully controlled.

Neither should the ease and rapidity of trance induction be mistaken as a valid indication of the ability to maintain a trance state. Easy hypnotizability may indicate a need to allow adequate time for a reorientation of the subject's total behavior to permit full and sustained responses. To believe that the subject who readily develops a deep trance will remain deeply hypnotized indefinitely is a naive assumption.

There are those subjects who hypnotize easily, develop a great variety of complex hypnotic behavior, and yet fail to learn some minor hypnotic adjustment. To illustrate, an excellent subject capable of amazingly complex hypnotic behavior was found to have extreme difficulty in relation to physical orientation. All experimental studies with him had to be done in a laboratory setting; otherwise his functioning tended to be at an "as if" level. However, a hallucinatory laboratory situation was as satisfactory to him as a genuine laboratory. Another capable subject, easily hypnotized, could not develop dissociation and depersonalization states unless she was first induced to hallucinate herself elsewhere, preferably at home reading a book. Once this was done, inconsistencies in her dissociative behavior disappeared. With both subjects, effort to economize on time in establishing the laboratory or home situation, despite their rapid hypnotizability, resulted in faulty hypnotic responses. The general situation, even as time considerations, may be an essential factor in the development and maintenance of satisfactory trances.

The oversight and actual neglect of time as an important factor in hypnosis and the disregard of the individual needs of subjects account for much contradiction in hypnotic studies. Published estimates of the hypnotizability of the general population range from 5-70 percent and even higher. The lower estimates are often due to a disregard of time as an important factor in the development of hypnotic behavior. Personal experience extending over 35 years with well over 3,500 hypnotic subjects has confirmed the importance of subject individuality and time values. One of the author's most capable subjects required less than 30 seconds to develop his first profound trance, with subsequent equally rapid and consistently reliable hypnotic behavior. A second remarkably competent subject required 300 hours of systematic labor before a trance was even induced; thereafter, a 20-30-minute period of trance induction was requisite to secure valid hypnotic behavior.

Ordinarily a total of four to eight hours of initial induction training is sufficient. Then, since trance induction is one process and trance utilization is another—to permit the subjects to reorganize behavioral processes in accord with projected hypnotic work, time must necessarily be allotted with full regard for their capacities to learn and to respond. For example, muscular rigidity is usually produced in a few moments, but a satisfactory anaesthesia or analgesia for childbirth may take hours in divided training periods.

The length of time subjects have been engaged in hypnotic work and the variety of their hypnotic experience are important factors in hypnotic research. Often, subjects are transients, serving in only one or two experimental studies. Personal experience, as well as that of colleagues, has demonstrated that the more extensive and varied a subject's hypnotic experience is, the more effectively a subject can function in complicated problems. The author prefers to do research with subjects who have experienced hypnosis repeatedly over a long period of time and who have been called upon to manifest a great variety of hypnotic phenomena. Lacking this, the subjects are systematically trained in different types of hypnotic behavior. In training subjects for hypnotic anaesthesia for obstetrical purposes, they may be taught automatic writing and negative visual hallucinations as a preliminary foundation. The former is taught as a foundation for local dissociation of a body part and the latter as a means of instruction in not responding to stimuli. Such training might seem irrelevant, but experience has disclosed that it can be a highly effective procedure in securing the full utilization of the subjects' capabilities. The goal sought is often infinitely more important than the apparent logic of the procedure, and the mere testing of a hypnotic procedure should not be regarded as a testing of the possibility of hypnotic phenomena.

The foregoing has been presented as general background. Now more specific discussion will be offered concerning the nature of deep trances and their induction, but not with any view of trying to describe a specific technical procedure. The variability of subjects, the individuality of their general and immediate needs, their differences in time and situation requirements, the uniqueness of their personalities and capabilities, together with the demands made by the projected work, render impossible any absolutely rigid procedure. At best a rigid procedure can be employed to determine its effectiveness in securing

certain results; as such it is a measure of itself primarily and not of the inherent nature of the results obtained. This is even more apparent when it is recognized that trance induction for experiments is actually a preliminary to trance utilization which belongs to another category of behavior. Such utilization depends not upon the procedure employed to secure a trance, but upon the behavior developments that arise subsequent to the induction and from the trance state itself. No matter how "controlled" a trance induction may be, the development of hypnotic phenomena, and of psychological reactions to those phenomena, introduce variables for which no rigid procedure of induction can provide controls. As an analogy: However dependent upon a controlled anaesthesia a surgical operation may be, the actual surgery and surgical results belong to another category of events merely facilitated by the anaesthesia.

## **DESCRIPTION OF DEEP HYPNOSIS**

Before offering a discussion of deep trance induction, an effort will be made to describe deep hypnosis itself. It must be recognized that a description, no matter how accurate and complete, will not substitute for actual experience, nor can it be made applicable for all subjects. Any description of a deep trance must necessarily vary in minor details from one subject to another. There can be no absolute listing of hypnotic phenomena as belonging to any one level of hypnosis. Some subjects will develop phenomena in the light trance usually associated with the deep trance, and others in a deep trance will show some of the behavior commonly regarded as characteristic of the light trance. Some subjects who in light trances show behavior usually typical of the deep trance may show a loss of that same behavior when deep hypnosis actually develops. For example, subjects who easily develop amnesias in the light trance may just as easily fail to develop amnesia in the deep trance. The reason for such apparent anomalies lies in the entirely different psychological orientation of the deeply hypnotized persons as contrasted to their orientation in lighter stages of hypnosis. At the lighter levels there is an admixture of conscious understandings and expectations and a certain amount of conscious participation. In the deeper stages functioning is more properly at an unconscious level of awareness.

In the deep trance subjects behave in accordance with unconscious patterns of awareness and response which frequently differ from their conscious patterns. Especially is this so in naive subjects whose lack of experience with hypnosis and whose actual ignorance of hypnotic phenomena unwittingly interfere with the development of deep trance phenomena until experience permits a diffusion of understandings from the conscious to the unconscious mind.

An example frequently encountered is the difficulty of teaching good naive subjects to talk in the profound trance. In the light trance they can speak more or less readily, but in the deep trance where their unconscious mind is functioning directly, they find themselves unable to talk without awakening. They have had a lifetime of experience in which talking is done at a conscious level; they have no realization that talking is possible at a purely unconscious level of awareness. Subjects often need to be taught to realize their capabilities to function adequately, whether at a conscious or an unconscious level

of awareness. It is for this reason that the author has so often emphasized the need of spending four to eight or more hours in inducing trances and training subjects to function adequately before attempting hypnotic experimentation or therapy.

Contradictory or unsatisfactory results in experimental work requiring deep hypnosis in which verbalization by a subject is necessary have resulted from the subject's need to return to a lighter stage of hypnosis in order to vocalize, without the experimenter's realizing this. Yet teaching subjects how to remain in deep trances and to talk and function as adequately as at a conscious level of awareness is relatively easy. Subjects who seem unable to learn to talk while in the deep trance can be taught automatic writing, to read silently that writing, and to mouth silently as they read; it is a relatively simple step to convert the motor activity of writing and mouthing into actual speaking. A little practice and, contrary to the subjects' past experiential understandings, speech becomes possible at the unconscious level of functioning. The situation is similar in relation to other types of hypnotic phenomena: Pain is a conscious experience, hence analgesia or anaesthesia often need to be taught in a like fashion. The same may be true for hallucinations, regression, amnesia, or other hypnotic phenomena. Some subjects require extensive instruction in a number of regards; others can themselves transfer learnings in one field to a problem of another sort.

The above is an introduction to a description of the nature of a deep trance:

*Deep hypnosis is the level of hypnosis that permits subjects to function adequately and directly at an unconscious level of awareness without interference by the conscious mind.*

Subjects in deep trance function in accord with unconscious understandings, independently of the forces to which their conscious mind ordinarily responds; they behave in accordance with the realities which exist in the given hypnotic situation for their unconscious mind. Conceptions, memories, and ideas constitute their reality world while they are in deep trance. The actual external environmental reality with which they are surrounded is relevant only insofar as it is utilized in the hypnotic situation. Hence external reality does not necessarily constitute concrete objective matter possessed of intrinsic values. Subjects can write automatically on paper and read what they have written. They can hallucinate equally well the paper, pencil, and motor behavior of writing and then read that "writing." The intrinsic significance of the concrete pencil and paper derives solely from the subjective experiential processes within the subject; once used, they cease to be a part of the total hypnotic situation. In light trances or in the waking state, pencil and paper are objects possessed of significances in addition to those significances peculiar to the individual mind.

The reality of the deep trance must necessarily be in accord with the fundamental needs and structure of the total personality. Thus it is that profoundly neurotic persons in the deep trance can, in that situation, be freed from their otherwise overwhelming neurotic behavior, and thereby a foundation laid for their therapeutic reeducation in accord with each fundamental personality. The overlay of neuroticism, however extensive, does not distort the central core of the personality, though it may disguise and cripple the

manifestations of it. Similarly, any attempt to force upon hypnotic subjects, however deep the trance, suggestions unacceptable to their total personalities leads either to a rejection of the suggestions or to a transformation of them so that they can then be satisfied by pretense behavior (so often accepted as valid in attempted studies of hypnotically induced antisocial behavior). The need to appreciate the subject as a person possessing individuality which must be respected cannot be overemphasized. Such appreciation and respect constitute a foundation for recognizing and differentiating conscious and unconscious behavior. Only an awareness of what constitutes behavior deriving from the unconscious mind of the subjects enables the hypnotist to induce and to maintain deep trances. Solely for convenience of conceptualization, deep trances may be classified as (a) somnambulistic and (b) stuporous. In well-trained subjects the former is that type of trance in which a subject is seemingly awake and functioning adequately, freely, and well in the total hypnotic situation, in a manner similar to that of a nonhypnotized person operating at the waking level. Well-trained subjects are not those laboriously taught to behave in a certain way, but rather those trained to rely completely upon their own unconscious patterns of response and behavior.

An illustrative example is the instance in which the author, as a teaching device for the audience, had a subject in a profound somnambulistic trance conduct a lecture and demonstration of hypnosis (unaided by the author) before a group of psychiatrists and psychologists. Although many of the audience had had experience with hypnosis, none detected that she was in a trance. A similar instance concerns a psychiatrist, a student and subject of the author's, who, without the author's previous knowledge and as a personal experiment in autohypnosis, conducted a staff meeting and presented a case history successfully without her trance state being detected. However, once apprised of the situation, the audience could readily recognize the tremendous differences between ordinary conscious behavior and trance behavior, and repetitions of this procedure were detected.

The stuporous trance is characterized primarily by passive responsive behavior, marked by both psychological and physiological retardation. Spontaneous behavior and initiative, so characteristic of the somnambulistic state if allowed to develop, are lacking. There is likely to be a marked perseveration of incomplete responsive behavior, and there is a definite loss of ability to appreciate the self. Medical colleagues asked by the author to examine subjects in a stuporous trance without knowledge of the hypnotic situation have repeatedly offered the tentative opinion of a narcotized state. In the author's experience the stuporous trance is difficult to obtain in many subjects, apparently because of their objection to losing their awareness of themselves as persons. Its use by the author has been limited primarily to the study of physiological behavior and to its therapeutic application in certain types of profoundly neurotic patients.

## **PROBLEMS OF DEEP-TRANCE INDUCTION**

An exposition of the numerous problems of deep-trance induction will be presented by means of a discussion of the major considerations involved, with a detailing of procedures that may be used and the purposes to be served. Although the author is

presenting his own experience, this has been confirmed by the experience and practice of his students and colleagues. These considerations will be listed and discussed separately.

### **Trance Induction versus Trance Utilization**

Foremost among the major considerations in any work with deep hypnosis is the need to recognize that trance induction is one thing and trance utilization is another (even as surgical preparation and anaesthesia are one thing and the surgery is another). This has been mentioned before and is repeated here for emphasis. Unless the projected work is no more than a study of trance induction itself, this differentiation must be made by both the subject and the hypnotist. Otherwise there can be a continuance of trance-induction behavior into the trance state with the result that "trance" activities become an admixture of partial and incomplete induction responses, elements of conscious behavior, and actual trance behavior.

### **Differentiation of Trance Behavior from ordinary Conscious Behavior**

Directly related to the first consideration is the recognition and differentiation of conscious behavior from the behavior arising from the unconscious. In this matter experience is the only teacher, and careful study of behavior manifestations is necessary. This is best accomplished in relation to reality objects. The subjects in profound hypnosis can be instructed to note well and thoroughly an actual chair. Secret removal of that chair does not necessarily interfere with their task. They can continue to hallucinate it in its original position, and sometimes to see it at the same time in a new position as a duplicate chair. Each image is then possessed of the same reality values to them. In the ordinary conscious state such behavior would be impossible or a pretense. Or if a subject discovers that the chair has been moved, searching study may disclose other mental adjustments. Thus, a subject may develop a different orientation of the object so that, to him, the chair remains unmoved in the northeast corner, his sense of direction having altered to meet the situational need.

Similarly, the induced hallucination of a person, resulting in two visual images, confronts the subject with the question of which visual image is real. The spontaneous solution, witnessed by the author on several occasions achieved especially by psychology and medical students, may be one in which the subject silently wishes that a certain movement would be made by the two figures. The figure responding to that silent wish is then recognized as hallucinatory. The reality to the self of the subjects' hypnotic behavior and its recognition by the hypnotist is essential to induce and to permit adequate functioning in the trance state. Failure of such recognition permits the acceptance of inadequate responses as valid manifestations, whereas prolonged and intensive effort may be required to produce the desired hypnotic phenomena.

### **Orientation of all Hypnotic Procedure About the Subjects**

All techniques of procedure should be oriented about the subjects and their needs in order to secure their full cooperation. The projected hypnotic work should be no more than a

part of the total hypnotic situation, and it should be adapted to the subjects, not the subjects to the work. These needs may range from the important to the insignificant, but in the hypnotic situation an apparently inconsequential matter may become crucial.

For example, a subject repeatedly used with equivocal and unsatisfactory results by another hypnotist in an experiment involving the use of a plethysmograph on his right hand cooperated with good results when the author recognized his unconscious need to have his left-handedness recognized by placing the plethysmograph on his left rather than his right hand. This done, it was found that he could then also cooperate when his right hand was used. An ambidextrous subject, in an experiment involving automatic writing and drawing, was found to insist unconsciously upon the privilege of using either hand at will. Other subjects, especially medical and psychology students, have often insisted at an unconscious level upon the satisfaction of mere whims or the performance of other hypnotic work before their full cooperation could be secured for the experimental project for which they had volunteered.

A patient with a circumscribed neurotic disability was both unable and unwilling to pay for therapy. Yet he did not want to receive treatment without first making payment. Accordingly, he was induced to act as a volunteer subject for a long series of experiments, and at his insistence no therapy was attempted. After more than a year of experimental work he unconsciously reached the conclusion that his volunteered hypnotic services constituted adequate payment for therapy, which he then accepted fully. A subject's psychological needs, no matter how trivial and irrelevant, need to be met as fully as possible in hypnosis, where inter- and intrapersonal relationships are so vital. Oversight or neglect of this consideration will often lead to unsatisfactory, equivocal and even contradictory results. Indeed, when contradictory results are obtained from subjects, the entire hypnotic situation must be reviewed from their point of view.

## **The Need to Protect Subjects**

Subjects need to be protected at all times as personalities possessed of rights, privileges, and privacies and recognized as being placed in a seemingly vulnerable position in the hypnotic situation.

Regardless of how well informed and intelligent subjects may be, there always exists, whether recognized or not, a general questioning uncertainty about what will happen or what may or may not be said or done. Even subjects who have unburdened themselves freely and without inhibition to the author as a psychiatrist have manifested this need to protect the self and to put their best feet forward no matter how freely the wrong foot had been exposed.

This protection should properly be given subjects in both the waking and the trance states. It is best given in an indirect way in the waking state and more directly in the trance state.

To illustrate, a 20-year-old girl volunteered as an experimental subject but always reported for work in the company of a tactless, sharp-tongued associate who constituted a serious obstacle to hypnotic work. After a considerable amount of work the subject began reporting alone. Some time later she explained with mixed amusement and embarrassment, "I used to bring Ruth with me because she is so awfully catty that I knew I wouldn't do or say anything I didn't want to." She then told of her desire for therapy for some concealed phobic reactions. Her experimental work both before and after therapy was excellent.

In working with new subjects, and always when planning to induce deep trances, a systematic effort is made to demonstrate to the subjects that they are in a fully protected situation. Measures to this end are relatively simple and seemingly absurdly inadequate. Nevertheless, personality reactions make them effective. For example, a psychology graduate volunteered as a demonstration subject for a seminar group. A light trance was induced with some difficulty, and her behavior suggested her need for assurance of protection. Under the pretext of teaching her automatic writing, she was instructed to write some interesting sentence and, having written it, not to show it until after automatic writing as a topic had been discussed. Hesitantly, she wrote briefly. She was told to turn the paper face down so that not even she could read it. Handed a new sheet of paper, she was asked to write automatically her conscious and unconscious answers to the question, "Are you willing to have me read what you wrote?" Both written replies were "yes," to which was automatically added, "anybody."

The suggestion was offered that there was no urgency about reading her sentence since it was her first effort at automatic writing, that it might be more interesting to fold it up and put it away in her purse and at some later time compare the script with further automatic writing she might do. Following this, a deep trance was easily induced.

Some time later she explained, "I really wanted to go into a trance but I didn't know if I could trust you, which was silly because everything was being done in front of the whole class. When you asked me to write, my hand just impulsively wrote, 'Do I love Jerry?' and then I wrote that you or anybody else could read it. But when you told me to put it away and later just examine it for the handwriting, without even hinting about a possible meaning of the writing, I knew then that I had no reason whatever for any hesitation. And I also knew that I could answer my own question later instead of doing it all at once and wondering if I was right."

Such behavior has been encountered many times, and this general method of handling the need for ego protection has been found remarkably effective in securing deep, unconscious cooperation toward inducing deep trances.

Another measure frequently employed in this same connection is that of instructing subjects in a light trance to dream a very vivid, pleasing dream, to enjoy it, and, upon its completion, to forget it and not to recall it until so desired at some later date in a suitable situation. Such instruction is manifold in its effects: It gives the subjects a sense of liberty which is entirely safe and yet can be in accord with any unconscious ideas of license and

freedom in hypnosis. It utilizes familiar experiences in forgetting and repression. It gives a sense of security and confidence in the self, and it also constitutes a posthypnotic suggestion to be executed only at the subjects' desire. A broad foundation is thus laid conducive to the development of profound trances.

This type of comprehensive suggestion is employed extensively by the author, since it serves to initiate a wealth of hypnotic responses pleasing to the subjects and constructive for the hypnotist, in a fashion fully protective of the subjects and thereby insuring cooperation.

Another measure of a somewhat negative character is that of instructing lightly hypnotized subjects to withhold some item of information from the hypnotist. This item should, preferably, be one of a definitely personal character not fully recognized by the subjects as such. It might be their middle name, what member of the family they resemble most, or the first name of their best friend when they were children. Thus the subjects discover by actual experience that they are not helpless automatons, that they can actually enjoy cooperating with the hypnotist, that they can succeed in executing hypnotic suggestions, and that it is their behavior rather than the hypnotist's that leads to success. All of these reactions are essential in securing deep trances. Also, subjects learn unwittingly that, if they can act successfully upon a *negative* suggestion, the converse is true.

Another frequently overlooked form of protection for the subjects is the expression of appreciation for their services. Full regard must be given to the human need to succeed and to the desire for recognition by the self and others of that success. Depriving the subjects of this constitutes a failure to protect them as sentient beings. Such failure may imperil the validity of hypnotic work, since the subjects may feel that their efforts are not appreciated, and this may result in lesser degrees of cooperation. Even more can this be recognized when it is realized that emotional reactions are not necessarily rational, especially at an unconscious level of reaction. Experience has shown that appreciation must be definitely expressed in some manner, preferably first in the trance state and later in the ordinary waking state. In projects where expressed appreciation is precluded, the subjects can receive in other situations the hypnotist's appreciation of services rendered. In any hypnotic work careful attention must be given to the full protection of the subjects' ego by meeting readily their needs as individuals.

### **The Utilization of All of the Subject's Responsive and Spontaneous Behavior During Trance Induction**

Often techniques of hypnosis center primarily about what the hypnotist does or says to secure trances, with too little attention directed to what the subjects are doing and experiencing. Actually, the development of a trance state is an intrapsychic phenomenon, dependent upon internal processes, and the activity of the hypnotist serves only to create a favorable situation. As an analogy, an incubator supplies a favorable environment for the hatching of eggs, but the actual hatching derives from the development of life processes within the egg.

In trance induction inexperienced hypnotists often try to direct or bend the subject's behavior to fit their conception of how the subject "should" behave. There should be a constant minimization of the role of the hypnotist and a constant enlargement of the subject's role. An example may be cited of a volunteer subject, later used to teach hypnosis to medical students. After a general discussion of hypnosis, she expressed a willingness to go into a trance immediately. The suggestion was offered that she select the chair and position she felt would be most comfortable. When she had settled herself to her satisfaction, she remarked that she would like to smoke a cigarette. She was immediately given one, and she proceeded to smoke lazily, meditatively watching the smoke drifting upward. Casual conversational remarks were offered about the pleasure of smoking, of watching the curling smoke, the feeling of ease in lifting the cigarette to her mouth, the inner sense of satisfaction of becoming entirely absorbed just in smoking comfortably and without need to attend to any external things. Shortly, casual remarks were made about inhaling and exhaling, these words timed to fit in with her actual breathing. Others were made about the ease with which she could almost automatically lift her cigarette to her mouth and then lower her hand to the arm of the chair. These remarks were also timed to coincide with her actual behavior. Soon the words "inhale," "exhale," "lift," and "lower" acquired a conditioning value of which she was unaware because of the seemingly conversational character of the suggestions. Similarly, casual suggestions were offered in which the words "sleep," "sleepy," and "sleeping" were timed to her eyelid behavior.

Before she had finished the cigarette, she developed a light trance. Then the suggestion was made that she might continue to enjoy smoking as she slept more and more soundly; that the cigarette would be looked after by the hypnotist while she absorbed herself more and more completely in deep sleep; that, as she slept, she would continue to experience the satisfying feelings and sensations of smoking. A satisfactory profound trance resulted, and she was given extensive training to teach her to respond in accord with her own unconscious pattern of behavior.

Thereafter she was presented on a number of occasions to groups of medical students as a volunteer subject with whom they might work. Her behavior with them was essentially the same as with the author. However, her request to smoke a cigarette was variously handled by the students. Some tactfully dissuaded her from thus postponing the trance induction, some joined her in smoking, and some patiently waited for her to finish. Only after the cigarette question was disposed of in some manner was she allowed to settle down to the task of being hypnotized. The result in every instance was a failure. At a final session with all of the students who had participated, two other students were brought in separately to attempt to hypnotize her. Both of these had been given independently the above account of the author's utilization of the subject's behavior. Both induced profound trances. Then the other students, following the examples set them, also succeeded.

This case has been cited in some detail since it illustrates so clearly the importance of hypnotists' adapting whatever technique they may be employing to the behavioral

activities of the subject. To interpret that subject's desire to smoke as an active resistance to trance induction would be incorrect; rather, it was an expression of an actual willingness to cooperate in a way fitting to her needs. It needed to be utilized as such rather than to be overcome or abolished as resistance.

Many times the apparent active resistance encountered in subjects is no more than an unconscious measure of testing the hypnotist's willingness to meet them halfway instead of trying to force them to act entirely in accord with his or her ideas. Thus one subject who had been worked with unsuccessfully by several hypnotists volunteered to act as a demonstration subject. When her offer was accepted, she seated herself in a stiffly upright, challenging position on the chair facing the audience. This apparently unpropitious behavior was met by a casual, conversational remark to the audience that hypnosis was not necessarily dependent upon complete relaxation or automatism, but that hypnosis could be induced in a willing subject if the hypnotist was willing himself to accept the subject's behavior fully. The subject responded to this by rising and asking if she could be hypnotized standing up. Her inquiry was countered by the suggestion, "Why not demonstrate that it can be?" A series of suggestions resulted in the rapid development of a deep trance. Inquiries by the audience revealed that she had read extensively on hypnosis and objected strenuously to the frequently encountered misconception of the hypnotized person as a passively responsive automaton, incapable of self-expression. She explained further that it should be made clear that spontaneous behavior was fully as feasible as responsive activity and that utilization of hypnosis could be made effectively by recognition of this fact.

It should be noted that the reply, "Why not demonstrate that it can be?" constituted an absolute acceptance of her behavior, committed her fully to the experience of being hypnotized, and ensured her full cooperation in achieving her own purposes as well as those of the hypnotist.

Throughout the demonstration she frequently offered suggestions to the author about what next he might ask her to demonstrate, sometimes actually altering the suggested task. At other times she was completely passive in her responses.

Another subject, a graduate in psychology, experienced great difficulty in going into a deep trance. After several hours of intensive effort she timidly inquired if she could advise on technique, even though she had no other experience with hypnosis. Her offer was gladly accepted, whereupon she gave counsel: "You're talking too fast on that point; you should say that very slowly and emphatically and keep repeating it. Say that very rapidly and wait awhile and then repeat it slowly; and please pause now and then to let me rest, and please don't split your infinitives."

With her aid a profound, almost stuporous trance was secured in less than 30 minutes. Thereafter she was employed extensively in a great variety of experimental work and was used to teach others how to induce deep trances.

Acceptance of such help is an expression neither of ignorance nor of incompetence; rather, it is an honest recognition that deep hypnosis is a joint endeavor in which the subjects do the work and the hypnotist tries to stimulate the subjects to make the necessary effort. It is an acknowledgment that no person can really understand the individual patterns of learning and response of another. While this measure works best with highly intelligent, seriously interested subjects, it is also effective with others. It establishes a feeling of trust, confidence, and active participation in a joint task. Moreover it serves to dispel misconceptions of the mystical powers of the hypnotist and to define indirectly the respective roles of the subject and the hypnotist.

Fortunately this experience occurred early in the author's work and has been found of immense value ever since in inducing hypnosis of every degree and in the eliciting of highly complex hypnotic behavior.

One often reads in the literature about subject resistance and the techniques employed to circumvent or overcome it. In the author's experience the most satisfactory procedure is that of accepting and utilizing the resistance as well as any other type of behavior, since properly used they can all favor the development of hypnosis. This can be done by wording suggestions in such a fashion that a positive or a negative response, or an absence of response, are all defined as responsive behavior. For example, a resistive subject who is not receptive to suggestions for hand levitation can be told, "Shortly your right hand, or it may be your left hand, will begin to lift up, or it may press down, or it may not move at all, but we will wait to see just what happens. Maybe the thumb will be first, or you may feel something happening in your little finger, but the really important thing is not whether your hand lifts up or presses down or just remains still; rather, it is your ability to sense fully whatever feelings may develop in your hand."

With such wording absence of motion, lifting up, and pressing down are all covered, and any of the possibilities constitutes responsive behavior. Thus a situation is created in which the subjects can express their resistance in a constructive, cooperative fashion; manifestation of resistance by subjects is best utilized by developing a situation in which resistance serves a purpose. Hypnosis cannot be resisted if there is no hypnosis attempted. The hypnotist, recognizing this, should so develop the situation that any opportunity to manifest resistance becomes contingent upon hypnotic responses with a localization of all resistance upon irrelevant possibilities. The subjects whose resistance is manifested by failure to hand levitation can be given suggestions that their right hand will levitate, their left hand will not. To resist successfully, contrary behavior must be manifested. The result is that the subjects find themselves responding to suggestion, but to their own satisfaction. In the scores of instances where this measure has been employed, less than a half dozen subjects realized that a situation had been created in which their ambivalence had been resolved. One writer on hypnosis naively employed a similar procedure in which he asked subjects to resist going into a trance in an effort to demonstrate that they could not resist hypnotic suggestion. The subjects cooperatively and willingly proved that they could readily accept suggestions to prove that they could not. The study was published in entire innocence of its actual meaning.

Whatever the behavior offered by the subjects it should be accepted and utilized to develop further responsive behavior. Any attempt to "correct" or alter the subjects' behavior, or to force them to do things they are not interested in, militates against trance induction and certainly against deep trances. The very fact that subjects volunteer to be hypnotized and then offer resistance indicates an ambivalence which, recognized, can be utilized to serve successfully the purposes of both the subjects and the hypnotists. Such recognition and concession to the needs of the subjects and the utilization of their behavior do not constitute, as some authors have declared, "unorthodox techniques," based upon "clinical intuition," instead they constitute a simple recognition of existing conditions, based upon full respect for subjects as functioning personalities.

### **The Basing of Each Progressive Step of Trance Induction upon Actual Accomplishments by the Subject**

These accomplishments may be those of the hypnotic situation, or they may belong to the subject's everyday experience. Merely volunteering to act as a subject may be the outcome of a severe inner struggle. Relaxing comfortably in a chair and disregarding external distractions is an accomplishment. Absence of response to hand-levitation suggestions is not necessarily a failure, since the very immobility of the hands is in itself an accomplishment. Willingness to sit quietly while the hypnotist laboriously offers numerous suggestions, apparently futilely, is still another accomplishment. Each of these constitutes a form of behavior that may be emphasized as an initial successful step toward a greater development in the trance state.

To illustrate, a person with a Ph.D. in psychology, extremely scornful and skeptical of hypnosis, challenged the author to "try to work your little fad" on her in the presence of witnesses who would be able to attest to the author's failure. However, she did state that if it could be demonstrated to her that there were such a phenomenon as hypnosis, she would lend herself to any studies the author might plan. Her challenge and conditions were accepted. Her promise to act as a subject, if convinced, was carefully and quietly emphasized, since it constituted behavior of her own and could become the foundation for future trance behavior. Next, a technique of suggestion was employed which was believed certain to fail, which it did. Thus the subject was given a feeling of success, gratifying to her, but carrying an admixture of some regret over the author's discomfiture. This regret constituted a foundation stone for future trances. Then apparently as a face-saving device for the author, the topic of ideomotor activity was raised. After some discussion indirect suggestion led her to express a willingness to cooperate in experimentation of ideomotor activity. She qualified this by stating, "Don't try to tell me that ideomotor activity is hypnosis, because I know it isn't." This was countered by the observation that ideomotor activity could undoubtedly be achieved in hypnosis even as in the waking state. Thus another foundation stone was laid for future trance activity.

Hand levitation was selected as a good example of ideomotor activity, and she acceded readily, since she was unacquainted with the author's frequent use of hand levitation as an initial trance-induction procedure.

In the guise of a pedantic discussion a series of hand-levitation suggestions was offered. She responded quickly and delightedly. This was followed by the suggestion that, as a preliminary to experimental work, it might be well if she absorbed herself completely in the subjective aspects of the experience, disregarding, as she did so, all external stimuli except the author's remarks. Thus a further stone was laid. Within 10 minutes she developed a profound somnambulistic trance. After some minutes of further suggestion of variations in her ideomotor responses, the remark was made that she might like to discontinue and to return to another point in the original discussion. Thus she was given a suggestion to awaken from the trance, safe from any autocritical understandings. She agreed and wakened easily, and the author immediately resumed the original discussion. Shortly a second trance was induced by the same procedure, followed in the course of four hours by four more.

During the third trance she was tested for catalepsy, which was present. This alarmed and distressed her, but before she could awaken, it was described to her satisfaction as "arrested ideomotor activity," and this not only reassured her but stimulated further interest.

In the next two trances she willingly undertook to experience "other associated phenomena of ideomotor activity." Thus she was instructed to glance at the witnesses and then to note that, as her attention to the others waned and she became more absorbed subjectively in the ideomotor behavior of her hands, she would cease to see the others. In this way she was taught to develop negative hallucinations by extending her interest in ideomotor activity to an exclusion of other behavior. By a comparable measure she was taught positive hallucinations by visualizing her levitated hand so clearly in two different positions that she would not be able to distinguish her hand from its visual image in another position. This done, the specious argument was offered that, as her attention to her ideomotor activity waxed and waned, she would variously see and not see, hear and not hear, the others present, that she might visualize in duplicate others present, and that she could forget the presence of others and even ideas about them or any other thing. By this means she was induced to experience a wealth of hypnotic phenomena.

There followed the more difficult task of informing her that she had been hypnotized. This was done by suggesting, in the sixth trance, that she recall her feelings "during the first demonstration of ideomotor activity." As she did so, it was pointed out that her self-absorption might possibly be compared to a somewhat similar state that was manifested in hypnosis. Proceeding to the "second demonstration," the suggestion was offered that her behavior was almost trancelike. She was then asked to visualize herself as she must have appeared in the "third demonstration." As she did so, she was asked to comment on her cataleptic behavior, to develop auditory imagery of what had been said to her, and to note the responses made. This time hypnosis was hinted at as a definite probability, and she was tactfully praised for her ability to develop the imagery, visual and auditory, that enabled her to view so clearly her behavior. Immediately she was asked to consider the fourth instance. As she did so, she asked hesitantly if, in that demonstration, she were not really in a trance. Assured that she could understand freely, comfortably, and with a most pleasing sense of actual accomplishment, she declared, "Then I must really be in a trance

right now." The author agreed and rapidly reminded her of every success she had achieved and how excellently she had been able to utilize her ideomotor activity to expand her field of personal experience. She was further instructed to review mentally the entire evening and to give the author any counsel she wished.

After quiet meditation she asked the author not to tell her, after she had awakened, that she had been hypnotized, but to give her time to reorganize her general attitudes toward hypnosis and toward the author as an exponent of hypnosis, and time to get used to the error of her previous thinking.

It was agreed, and she was told she would awaken with an amnesia for her trance experience and with a pleased feeling that both she and the author were interested in ideomotor phenomena. Suggestion was then given that her unconscious mind would take much pleasure in keeping awareness away from her consciousness of the fact that she had been hypnotized, and that this secret could be shared by her unconscious and the author. She was instructed that her unconscious could and would so govern her conscious mind that she could learn about hypnosis and her hypnotic experience in any way that was satisfying and informative to her as a total personality. By this posthypnotic suggestion the subject was given still further hypnotic training in relation to the independent functioning of the unconscious and conscious mind, the development of a hypnotic amnesia, and the execution of posthypnotic work. In addition she was made aware at a deep level that she, as a personality, was fully protected, that her functioning rather than the hypnotist's was the primary consideration in trance induction, and that utilization of one process of behavior could be made a stepping-stone to development of a similar but more complex form.

The outcome was most interesting. Two days later the subject offered her apologies for her "flippant skepticism" about hypnosis and her "unwarranted" disparagement of the author's work. She added that she was much amused by her need to apologize. A few days later she volunteered to act as a subject, stating she was now seriously interested and would like to participate in some investigative studies. She proved to be a most productive subject over a period of years.

This lengthy example illustrates many of the considerations this author has found of tremendous importance in inducing deep trances. The little item of having a "secret understanding" between the subjects' unconscious minds and the hypnotist has many times proved to be remarkably effective as a means of securing deep trances in otherwise aggressively resistant subjects. By virtue of this they could make conscious and express freely and safely their resistances. At the same time they could have a profound feeling that they were cooperating fully, securely, and effectively. The satisfaction so derived by the subjects leads to a desire for continued successful accomplishment, and active resistances are rapidly dispelled, resolved, or constructively utilized.

In brief, whatever the behavior manifested by the subjects, it should be accepted and regarded as grist for the mill. Acceptance of her need for the author to fail led to ideomotor activity. This led progressively to a wealth of hypnotic phenomena based

either directly or indirectly upon ideomotor responses and culminated in a success pleasing to her as well as to the hypnotist. Had any effort been made to get that subject to conform to some rigid technique of trance induction, failure would have undoubtedly ensued, and rightly so, since the development of a trance was not to prove the author's ability but to secure experiential values and understandings by the subject.

Much of the foregoing material constitutes an exposition of the major considerations involved in the securing of deep trances. Some special hypnotic procedures which are usually successful will now be summarized. Full details are omitted due to space limitations and because of the constant shifting from one orientation to another which they require.

### **THE CONFUSION TECHNIQUE**

For want of a better term, one of these special procedures may be referred to as the "confusion technique." It has been employed extensively for the induction of specific phenomena as well as deep trances. Usually it is best employed with highly intelligent subjects interested in the hypnotic process, or with those consciously unwilling to go into a trance despite an unconscious willingness.

In essence it is no more than a presentation of a whole series of individually differing, contradictory suggestions, apparently all at variance with each other, differently directed and requiring a constant shift in orientation by the subjects. For example, in producing hand levitation, emphatic suggestions directed to the levitation of the right hand are offered together with suggestions of the immobility of the left hand. Shortly the subjects become aware that the hypnotist is apparently misspeaking, since levitation of the left hand and immobility of the right are then suggested. As the subjects accommodate themselves to the seeming confusion of the hypnotist, thereby unwittingly cooperating in a significant fashion, suggestions of immobility of both hands are given together with others of the simultaneous lifting of one and pressing down of the other. These are followed by a return to the initial suggestions.

As the subjects try, conditioned by their early cooperative responses to the hypnotist's apparent misspeaking, to accommodate themselves to the welter of confused, contradictory responses apparently sought, they find themselves at such a loss that they welcome any positive suggestion that will permit a retreat from so unsatisfying and confusing a situation. The rapidity, insistence, and confidence with which the suggestions are given serve to prevent the subjects from making any effort to bring about a semblance of order. At best they can only try to accommodate themselves and thus yield to the overall significance of the total series of suggestions.

Or, while successfully inducing levitation, one may systematically build up a state of confusion as to which hand is moving, which more rapidly or more laterally, which will become arrested in movement, and which will continue and in what direction, until a retreat from the confusion by a complete acceptance of the suggestions of the moment becomes a greatly desired goal.

In inducing an extensive amnesia with a regression of the subjects to earlier patterns of behavior, the "confusion technique" has been found extremely valuable and effective. It is based upon the utilization of everyday experiences familiar to everyone. To regress a subject to an earlier time, a beginning is made with casual conversational suggestions about how easy it is to sometimes become confused as to the day of the week, to misremember an appointment as of tomorrow instead of yesterday, and to give the date as the old year instead of the new. As the subject correlates these suggestions with actual past experiences, the remark is made that, although today is Tuesday, one might think of it as Thursday, but since today is Wednesday and since it is not important for the present situation whether it is Wednesday or Monday, one can call to mind vividly an experience of one week ago on Monday, that constituted a repetition of an experience of the previous Wednesday. This, in turn, is reminiscent of an event which occurred on the subject's birthday in 1948, at which time he could only speculate upon, but not know, about what would happen on the 1949 birthday and, even less so, about the events of the 1950 birthday, since they had not yet occurred. Further, since they had not occurred, there could be no memory of them in his thinking in 1948.

As the subjects receive these suggestions, they can recognize that they carry a weight of meaningfulness. However, in order to grasp it, their tendency is to try to think in terms of a birthday in 1948, but to do so they have to disregard 1949 and 1950. Barely have they begun to so orient their thinking when they are presented with another series of suggestions to the effect that one may remember some things and forget others; that people often forget things they are certain they will remember but which they do not; that certain childhood memories stand out even more vividly than memories of 1947, '46, '45; that actually every day they are forgetting something of this year as well as last year, or of 1945 or '44, and even more so of '42, '41, and '40. As for 1935, only certain things are remembered identifiably as of that year, and yet, as time goes on, still more will be forgotten.

These suggestions are also recognized as carrying a weight of acceptable meaningfulness, and every effort the subjects make to understand it leads to acceptance of them. In addition suggestions of amnesia have been offered, emphasis has been placed upon the remembering of childhood memories, and the processes of reorientation to an earlier age level are initiated.

These suggestions are not given initially in the form of commands or instructions but as thought-provoking comments. Then, as the subjects begin to respond, a slow, progressive shift is made to direct suggestions to recall more and more vividly the experiences of 1935 or 1930. As this is done, suggestions to forget the experiences subsequent to the selected age are given directly, but slowly, unnoticeably, and these suggestions are soon reworded to "forget many things, as naturally as one does, many things, events of the past, speculations about the future, but of course forgotten things are of no importance—only those things belonging to the present—thoughts, feelings, events, only these are vivid and meaningful." Thus a beginning order of ideas is suggested, needed by the subjects but requiring a certain type of response.

Next, suggestions are offered emphatically, with increasing intensity, that certain events of 1930 will be remembered so vividly that the subjects find themselves in the middle of the development of a life experience, one not yet completed. For example, one subject reoriented to his sixth birthday responded by experiencing himself sitting at the table anxiously waiting to see if his mother would give him one or two frankfurters. The Ph.D. person previously mentioned was reoriented to an earlier childhood level and responded by experiencing herself sitting in the schoolroom awaiting a lesson assignment.

It is at this point that an incredible error is made by many serious workers in hypnosis. This lies in the unthinking assumption that the subjects, reoriented to a period previous to their meeting with the hypnotist, can engage in conversation with the hypnotist, literally a nonexistent person. Yet, critical appreciation of this permits the hypnotist to accept seriously and not as a mere pretense a necessary transformation of his identity. The Ph.D woman, reliving her school experience, would not meet the author until more than 15 years later. So she spontaneously transformed his identity into that of her teacher, and her description as she perceived him in that situation, later checked, was found to be a valid description of the real teacher. For Dr. Erickson to talk to her in the schoolroom would be a ridiculous anachronism which would falsify the entire reorientation. With him seen as Miss Brown and responded to in the manner appropriate to the time, the schoolroom, and to Miss Brown, the situation became valid, a revivification of the past.

Perhaps the most absurd example of uncriticalness in this regard is that of the psychiatrist who reported at length upon his experimental regression of a subject to the intrauterine stage, at which he secured a subjective account of intrauterine experiences. He disregarded the fact that the infant *in utero* neither speaks nor understands the spoken word. He did not realize that his findings were the outcome of a subject's compliant effort to please an uncritical, unthinking worker.

This need for the hypnotist to fit into the regression situation is imperative for valid results, and it can easily be accomplished. A patient under therapy was regressed to the age level of four years. Information obtained independently about the patient revealed that, at that time in her life, she had been entertained by a neighbor's gold hunting-case watch, a fact she had long forgotten. In regressing her, as she approached the four-year level, the author's gold hunting-case watch was gently introduced visually and without suggestion. His recognition as that neighbor was readily and spontaneously achieved.

This transformation of the hypnotist into another person is not peculiar only to regression work. Many times, in inducing a deep trance in a newly met subject, the author has encountered difficulty until he recognized that, as Dr. Erickson, he was only a meaningless stranger and that the full development of a deep trance was contingent upon accepting a transformation of his identity into that of another person. Thus a subject wishing for hypnotic anaesthesia for childbirth consistently identified the author as a former psychology professor; it was not until shortly before delivery that he was accorded his true identity. Failure to accept seriously the situation would have militated greatly against the development of a deep trance and the training for anaesthesia.

Regardless of a hypnotist's experience and ability, a paramount consideration in inducing deep trances and securing valid responses is a recognition of each subject as a personality, the meeting of their needs, and an awareness and a recognition of their patterns of unconscious functioning. The hypnotists, not the subjects, should be made to fit themselves into the hypnotic situation.

### **THE REHEARSAL TECHNIQUE**

Another type of deep-trance induction may be termed the rehearsal or repetition technique. This can and often should be used for deep hypnosis and for individual phenomena. It can be employed in a variety of ways both experimentally and in therapeutic work, especially the latter. It consists of seizing upon some one form of behavior that apparently gives a promise of good development and having the subjects rehearse it and then repeat it in actuality.

Thus subjects who make little response to hypnosis but who seem to be potentially good subjects may make abortive responses to suggestions of automatic writing. This partial, tentative response can be seized upon as an instance of actual success. Then a series of suggestions is given, leading the subjects to rehearse mentally what must have been done to achieve that particular success. Then they are asked to rehearse mentally how it could be done on plain paper, on ruled paper, with a pen, a pencil, or a crayon. Next they are asked to perform what has been rehearsed mentally in the various permutations possible with that equipment. This can be followed by further rehearsals and repetitions, introducing as new variables hallucinatory paper and writing instruments and new letters, words, and sentences. As this procedure is followed, the subjects progressively develop a deeper and deeper trance, especially if the rehearsal and repetition are applied to other forms of hypnotic behavior.

Sometimes this technique can be applied in an entirely different fashion. For example, before a class of senior medical students, the author undertook to produce amnesia in a volunteer subject who wished both to go into a trance and to disappoint the author. The student expressed the opinion that he doubted if he could develop amnesia, and declared that he himself would propose his own proof of amnesia, namely the removal of his right shoe. Should this occur, he explained, it would constitute proof to him that he had developed an amnesia.

He developed a fairly good trance, and a whole series of instructions was given him, emphatically and repetitiously, that he perform several acts such as borrowing one student's cigarettes, another's glasses, etc. Repetitious command was also given to forget each simple task. Slipped unobtrusively into these suggestions was the statement that, after awakening, while discussing with the class the presence or absence of an amnesia for the assigned tasks, he would cross the room, write a sentence on the blackboard, and sign his name, still continuing his discussion.

Upon awakening, he declared that he recollected everything said to him and that he had done. His statement was challenged, whereupon he heatedly gave a running account of the tasks and his performance of them. Without interrupting his argument, he wrote the sentence and signed his name. After he had returned to his seat, his attention was called to the writing which he disclaimed, emphasizing that his narration proved his remembrance, and he extended his right foot with the shoe on to prove conclusively that he had no amnesia. He then continued his remarks, absentmindedly removing his shoe as he did so. This he did not discover until the class was dismissed. Systematically appraising the situation, he recognized that he had developed an amnesia with no conscious knowledge of the fact. The class was reconvened, and he was asked to duplicate the writing. As he was doing this, a few suggestions elicited a profound trance, and an extensive demonstration of the psychopathology of everyday life was conducted.

Thus the subject had been given a long, repetitious list of simple performances apparently to lead to amnesia, but actually to permit him to succeed over and over in accord with his personal needs. Hence the failures were really successful performances which could actually favor another successful performance, namely the development of amnesia. The unobtrusive slipping in of the suggestion of writing permitted him to set it apart from the other more urgent suggestions. Then, as he achieved his numerous successes of no amnesia, the pattern of response was completed for more successes by his proving the lack of amnesia, by exhibiting his shoe on his foot. This, however, left unsatisfied his actual desire for still more success, namely his demonstration of an amnesia by the removal of his shoe, an item of behavior he himself had selected. This he achieved by a double amnesia for the writing and the shoe removal, an even greater success than he had anticipated. Then, as he repeated the writing, he found himself again in the situation that had led to his most satisfying accomplishment. The situation led easily to a deep trance state by virtue of a repetition or rehearsal procedure.

Still another form of this technique has been found useful in inducing deep trances and in studies of motivation, association of ideas, regression, symbol analysis, repression, and the development of insight. It has proved a most effective therapeutic procedure and is primarily a matter of having the subjects repeat over and over in the trance state a dream or, less preferably, a fantasy, in constantly differing guises. That is, they repeat a spontaneous dream or an induced dream with a different cast of characters, perhaps in a different setting, but with the same meaning. After the second dreaming the same instructions are given again, and this continues until the purposes to be served are accomplished. To illustrate, a patient offered this spontaneous dream of the previous night: "I was alone in a grass-covered meadow. There were knolls and curving rises in the ground. It was warm and comfortable. I wanted something dreadfully—I don't know what. But I was scared—paralyzed with fear. It was horrible. I woke up trembling."

Repeated, the dream was: "I was walking up a narrow valley. I was looking for something I had to find, but I didn't want it. I didn't know what I was looking for, but I knew something was forcing me to look for it, and I was afraid of it, whatever it was. Then I came to the end of the valley where the walls came together and there was a little stream of water flowing from under a thick bush. That bush was covered with horrible

thorns. It was poisonous. Something was pushing me closer, and I kept getting smaller and smaller and I still feel scared.”

The next repetition was: “This seems to have something to do with part of the last dream. It was spring, and the logs were in the river and all the lumberjacks and all the men were there. Everybody owned one of the logs, me too. All the others had big hardwood logs, but mine, when I got it, was a little rotten stick. I hoped nobody noticed and I claimed another, but when I got it, it was just like the first.”

Again repeated: “I was in a rowboat fishing. Everybody was fishing. Each of the others caught a great big fish. I fished and fished and all I got was a little sickly fish. I didn’t want it, but I had to keep it. I felt horribly depressed.”

Again: “I went fishing again. There were lots of big fish shooting around in the water, but I caught only miserable little fish that would fall off the hook and float dead on the water. But I had to have a fish, so I kept on fishing and got one that seemed to have a little life in it. So I put it in a gunny sack because I knew everybody should put his fish in a gunny sack. Everybody else did, and their fish always filled their gunny sacks completely. But my fish was just lost in the gunny sack, and then I noticed my gunny sack was all rotten and there was a hole in it, and a lot of slime and filth gushed out, and my fish floated away in that horrible slime, belly up, dead. And I looked around and I was on that meadow I told you about, and the gunny sack was under that bush with all those thorns and my good-for-nothing fish was floating down that stream of water I told you about, and it looked just like a rotten stick of wood.”

A series of repetitions finally resulted in the breaking down of extensive amnesias and blockings and his disclosure that, at puberty, under circumstances of extreme poverty, he had acted as a nurse for his mother, who had rejected him completely since infancy and who had died of an extensive neglected cancer of the genitals. Additionally, he told for the first time of his profound feelings of inferiority deriving from his lack of phallic development, his strong homosexual inclinations, and his feeling that his only protection from homosexuality would be a yielding to the “horrible pressure and force society uses to shove you to heterosexuality.”

This instance from a case history illustrates unconscious processes clearly: each succeeding dream resulted in a more easily induced and more easily maintained trance, at the same time giving the patient greater freedom in his thinking and in his use of less abstruse symbolism.

A necessary caution in utilizing this type of procedure for experimental or demonstration hypnosis is that dreams of a pleasant character should be employed if possible. If not, the implantation of an artificial complex, thereby limiting the extent of unpleasant emotions, is desirable. In all instances care should be taken to discontinue the work should it tend to lead to a situation which the hypnotist is not competent to handle. Otherwise, acute emotional disturbances and active repressions may result in a loss of the subject’s good regard for the hypnotist and cause emotional distress to the subject.

Another variation of the rehearsal method is that of having subjects visualize themselves carrying out some hypnotic task and then adding to the visualization other forms of imagery such as auditory, kinesthetic, etc. For example, a patient under therapy for neurotic maladjustment had great difficulty in developing and maintaining a deep trance. By having her, as an induction procedure, mentally rehearse the probably general course of events for each exploratory or therapeutic session and then hallucinate as fully as possible the probable experiences for each occasion, it was possible to elicit and maintain satisfactorily deep trances. By giving her "previews," she was able to develop and maintain a profound trance. After exploration of the underlying causes of her problem, the next step in therapy was to outline in great detail, with her help, the exact course of activity that she would have to follow to free herself from past rigidly established habitual patterns of behavior. Then she was reoriented to a time actually three months in the future and thereby was enabled to offer a "reminiscent" account of her therapy and recovery. A wealth of details was given, affording an abundance of new material which could be incorporated into the final therapeutic procedure.

A comparable instance is that of a girl who was a most competent subject—except before an audience. Then it was impossible to induce a deep trance or to maintain one induced in private. By having her rehearse a fantasized public demonstration for the future and then reorienting her to a date several weeks further in the future, she was able to regard the fantasy as an actual successful accomplishment of the past, much to her satisfaction. Immediately she was asked to "repeat" her demonstration before a student group, which she willingly and successfully did. There was no recurrence of the difficulty even after she was given a full understanding of how she had been manipulated.

Subjects reoriented from the present to the actual future, and instructed to look back upon proposed hypnotic work as actually accomplished, can often, by their "reminiscence," provide the hypnotist with understandings that can readily lead to much sounder work in deep trances. In therapy, as well as experimentally, the author has found this measure highly effective, since it permits elaboration of hypnotic work in fuller accord with the subject's total personalities and unconscious needs and capabilities. It often permits the correction of errors and oversights before they can be made, and it furnishes a better understanding of how to develop suitable techniques. Subjects employed in this manner can often render invaluable service in mapping out procedures and techniques to be employed in experimentation and therapy.

### **MULTIPLE-DISSOCIATION TECHNIQUE**

Another measure frequently employed by the author in inducing deep trances, or utilizing them for extensive complex work, is the induction of multiple visual hallucinations in which different but related things are visualized. (Many subjects can be taught "crystal gazing" in the light trance.) One patient, in a profoundly depressed, discouraged mood, readily seized the opportunity to intensify by contrast her unhappy mood by accepting the suggestion that she see in action in a crystal ball a happy incident of her childhood consciously forgotten. Utilizing her masochistic response to this, a second crystal ball was suggested in which she could see, simultaneously with the first, an incident

belonging to another age level. Soon there was a total of a dozen hallucinatory crystals in each of which a life scene of a different age level was being portrayed by hallucinatory figures belonging to her experiential past. Thus a combined experimental investigative and therapeutic situation was created in which her limited immediate willingness for a brief trance served to carry her into an extensive development hours long that therapeutically served her total personality needs.

This procedure is not limited to induced hallucinatory behavior. A musician, unresponsive to direct hypnotic suggestion, was induced to recall the experience of having his "thoughts haunted by a strain of music." This led to a suggested search for other similar experiences. Soon he became so absorbed in trying to recall forgotten memories and beating time as a kinesthetic aid that a deep trance developed. In other words, dissociation phenomena, whether spontaneous or induced, can be used in a repetitious manner to establish a psychological momentum to which subjects easily and readily yield.

## **POSTHYPNOTIC TECHNIQUES**

In a paper with E. M. Erickson attention was directed to the spontaneous hypnotic trance developed in relation to the execution of posthypnotic tasks. In inducing hypnosis, light or deep, the hypnotist may unobtrusively introduce some form of posthypnotic suggestion that will permit the subsequent development of a spontaneous trance. This trance can then be utilized as a point of departure for developing a new trance state. Not all subjects respond to this procedure, but it often proves of immense value.

Sometimes subjects who are only in a light trance can be given a simple posthypnotic suggestion. As they develop a spontaneous trance in executing the posthypnotic act, suggestions may be given to deepen it. The procedure can be repeated, and a third trance, still deeper, can result, until sufficient repetitions bring a deep hypnosis.

Concerning unobtrusive posthypnotic suggestions, the author resorts to such measures as saying, "Each time I take hold of your wrist and move your arm gently in this way (demonstrating), it will be a signal to you to do something—perhaps to move your other hand, perhaps to nod your head, perhaps to sleep more soundly, but each time you receive the signal, you will become ready to carry out the task." Repeated several times in the first trance, the subjects, in their immediate thinking, apply the suggestion only to that trance session. However, weeks later, in an appropriate setting, the repetition of the signal may result in a rapid induction of hypnosis. This method has been used extensively as a time-saving procedure in teaching professional students to become both hypnotists and hypnotic subjects.

As to posthypnotic acts for subjects to execute, a simple, casual activity is much better than some attention-compelling, overt act: watching the hypnotist light a cigarette, noting whether the match tossed toward the wastebasket falls in it, or observing that the book on the desk is about two inches away from the edge, are all infinitely better than having the subjects clap hands when the word "pencil" is spoken. The more casually hypnotic work

can be done, the easier it is for subjects to adapt to it. Casualness permits ready utilization of the behavioral developments of the total hypnotic situation.

In presenting this material the intention has not been to outline specific or exact techniques of procedure for hypnosis; rather, it has been to demonstrate that hypnosis should primarily be the outcome of a situation in which interpersonal and intrapersonal relationships are developed constructively to serve the purpose of both the hypnotist and the subject. This cannot be done by following rigid procedures and fixed methods, nor by striving to reach a single specific goal. The complexity of human behavior and its underlying motivations make necessary a cognizance of the multitude of factors existing in any situation arising between two personalities engaged in a joint activity. Whatever the part played by the hypnotist may be, the role of the subjects involve the greater amount of active functioning—functioning which derives from the capabilities, learnings, and experiential history of their total personalities. Hypnotists can only guide, direct, supervise, and provide the opportunity for subjects to do the productive work. To accomplish this, hypnotists must understand the situation and its needs, protect the subjects fully, and be able to recognize the work accomplished. They must accept and utilize the behavior that develops and be able to create opportunities and situations favorable for adequate functioning of their subjects.

# Naturalistic Techniques of Hypnosis

Milton H. Erickson

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The naturalistic approach to the problem of the induction of hypnotic trances—as opposed to formalized, ritualistic procedures of trance induction—merits much more investigation, experimentation, and study than has been accorded it to date.

By naturalistic approach is meant the acceptance and utilization of the situation encountered without endeavoring to psychologically restructure it. In so doing, the presenting behavior of the patient becomes a definite aid and an actual part in inducing a trance, rather than a possible hindrance. For lack of a more definite terminology the method may be termed a naturalistic approach in which an aspect of the principle of synergism is utilized.

Basic to this naturalistic approach are the interrelationships and the interdependencies reported by this writer in 1943 and repeatedly confirmed in his experience since then. In these studies emphasis was placed upon the desirability of utilizing one modality of response as an integral part in the eliciting of responses in another modality, and upon the interdependency of differing modalities of behavior somewhat analogous to the increasing of the knee jerk by a tensing of the arm muscles.

To illustrate and clarify these points a number of reports will be cited.

## **REPORT NO. 1**

A man in his 30's became interested in hypnosis and volunteered to act as a subject for some experimental studies at a university. In the first hypnotic session he discovered that he was an excellent hypnotic subject, but lost his interest in any further experimental studies.

Several years later he decided to have hypnosis employed by his dentist, since he needed extensive dental work and feared greatly the possibility of pain.

He entered a trance state for his dentist readily, developed an excellent anaesthesia of the hand upon suggestion, but failed to be able to transfer this anaesthesia or even an analgesia to his mouth in any degree. Instead he seemed to become even more sensitive orally. Efforts to develop oral anaesthesia or analgesia directly also failed.

Further but unsuccessful efforts were painstakingly made by the dentist and a colleague to teach this patient either anaesthesia or analgesia by various techniques. He could

respond in this way only in parts of the body other than the mouth. He was then brought to this writer as a special problem.

A trance state was induced readily, and the patient was casually reminded of his wish for comfort in the dental chair. Thereupon he was instructed to be attentive to the instructions given him and to execute them fully.

Suggestions were then given him that his left hand would become exceedingly sensitive to all stimuli, in fact painfully so. This hyperesthetic state would continue until he received instructions to the contrary. Throughout its duration, however, adequate care would be exercised to protect his hand from painful contacts.

The patient made a full and adequate response to these suggestions. In addition to the hyperesthesia of the hand, and entirely without any suggestion to that effect, he developed a spontaneous anaesthesia of his mouth, permitting full dental work with no other anaesthetic agent.

Even in subsequent efforts anaesthesia or analgesia could not be induced directly or purposely except as a part of the hyperesthesia-anaesthesia pattern peculiar to that patient. However, this is not a single instance of this type of behavior. Other comparable cases have been encountered from time to time.

Apparently, the patient's fixed, psychological understanding was that dental work must absolutely be associated with hypersensitivity. When this rigid understanding was met, dental anaesthesia could be achieved in a fashion analogous to the relaxation of one muscle permitting the contraction of another.

## **REPORT NO. 2**

Hypnosis had been attempted repeatedly and unsuccessfully on a dentist's wife by her husband and several of his colleagues. Each time, she stated, she became "absolutely scared stiff, so I just couldn't move and then I'd start crying. I just couldn't do anything they asked. I couldn't relax, I couldn't do hand levitation, I couldn't shut my eyes; all I could do was be scared silly and cry."

Again a naturalistic approach employing "synergism" was utilized. A general summary of her situation was offered to her in essentially the following words:

"You wish to have hypnosis utilized in connection with your dental work. Your husband and his colleagues wish the same, but each time hypnosis was attempted, you failed to go into a trance. You got scared stiff and you cried. *It would really be enough just to get stiff without crying.* Now you want me to treat you psychiatrically if necessary, but I don't believe it is. Instead I will just put you in a trance, so that you can have hypnosis for your dentistry."

She replied, "But I'll just get scared stiff and cry."

She was answered with, "No, you will first get stiff. That is the first thing to do and do it now. Just get more and more stiff, your arms, your legs, your body, your neck—completely stiff—even stiffer than you were with your husband.

"Now close your eyes and let the lids get stiff, so stiff that you can't open them."

Her responses were most adequate.

"Now the next thing you have to do is to get scared silly and then to cry. Of course, you don't want to do this, but you have to because you learned to, *but don't do it just yet.*"

"It would be so much easier to take a deep breath and relax all over and to sleep deeply."

"Why don't you try this, instead of going on to getting scared silly and crying?"

Her response to this alternative suggestion was immediate and remarkably good.

The next suggestion was, "Of course you can continue to sleep deeper and deeper in the trance state and be relaxed and comfortable. But any time you wish you can start to get scared stiff and silly and to cry, but maybe now that you know how to do so, you will just keep on being comfortable in the trance so that any dental or medical work you need can be done comfortably for you."

A simple posthypnotic suggestion to enable the induction of future trances was then given.

Following this she was asked if she was interested in discovering that she was a most competent subject. Upon her assent various phenomena of the deep somnambulistic trance were elicited to her pleasure and satisfaction.

Since then, for a period of nearly a year, she has been a most competent subject.

### **REPORT NO. 3**

Another type of case in which this same general approach was utilized concerns a bride of a week, who desired a consummation of her marriage but developed a state of extreme panic with her legs in the scissors position at every attempt or offer of an attempt.

She entered the office with her husband, haltingly gave her story, and explained that something had to be done, since she was being threatened with an annulment. Her husband confirmed her story and added other descriptive details.

The technique employed was essentially the same as that utilized in a halfdozen similar instances.

She was asked if she were willing to have any reasonable procedure employed to correct her problem. Her answer was, "Yes, anything except that I mustn't be touched, because I just go crazy if I'm touched." This statement her husband corroborated.

She was instructed that hypnosis would be employed. She consented hesitantly but again demanded that no effort be made to touch her.

She was told that her husband would sit continuously in the chair on the other side of the office and that the writer would also sit continuously beside her husband. She, however, was personally to move her chair to the far side of the room, there to sit down and watch her husband continuously. Should either he or the writer at any time leave their chairs, she was to leave the room immediately, since she was sitting next to the office door.

Next she was to sprawl out in her chair, leaning far back with her legs extended, her feet crossed, and all the muscles fully tensed. She was then to look at her husband fixedly until all she could see would be him, with just a view of the writer out of the corner of her eye. Her arms were to be crossed in front of her and her fists were to be tightly clenched.

Obediently she began this task. As she did so, she was told to sleep deeper and deeper, seeing nothing but her husband and the writer. As she slept more and more deeply, she would become scared and panicky, unable to move or to do anything except to watch us both and to sleep more and more deeply in the trance, in direct proportion to her panic state.

This panic state, she was instructed, would deepen her trance, and at the same time hold her rigidly immobile in the chair.

Then gradually, she was told, she would begin to feel her husband touching her intimately, caressingly, even though she would continue to see him still on the other side of the room. She was asked if she were willing to experience such sensations, and she was informed that her existing body rigidity would relax just sufficiently to permit her to nod or to shake her head in reply, and than an honest answer was to be given slowly and thoughtfully.

Slowly she nodded her head affirmatively. She was then asked to note that both her husband and the writer were turning their heads away from her, because she would not begin to feel a progressively more intimate caressing of her body by her husband, until finally she felt entirely pleased, happy, and relaxed.

Approximately five minutes later she addressed the writer, "Please don't look around. I'm so embarrassed. May we go home now, because I'm all right?"

She was dismissed from the office, and her husband was instructed to take her home and passively await developments.

Two hours later a joint telephone call was received, explaining simply, "Everything is all right."

A checkup telephone call a week later disclosed all to be well. Approximately 15 months later they brought their firstborn in with the greatest of pride.

Similar techniques have been employed in instances of nuptial impotence. These cases, in which this general approach has been employed, are eight in number; only one illustrative example will be cited.

#### **REPORT NO. 4**

This 24-year-old college-graduate and bridegroom returned from his honeymoon of two weeks most despondent in mood. His bride went immediately to a lawyer's office to seek an annulment, while he sought psychiatric aid.

He was persuaded to bring his wife to the office, and without difficulty she was persuaded to cooperate in the hypnotherapy of her husband.

This proceeded in the following fashion. He was told to look at his wife and to experience anew and completely his sense of absolute shame, humiliation, and hopeless helplessness.

As he did this, he would feel like doing anything, just anything, to escape from that completely wretched feeling. As this continued, he would feel himself becoming unable to see anything except his wife, even unable to see the writer, though able to hear his voice. As this happened, he would realize that he was entering a deep hypnotic trance in which he would have no control over his entire body. Then he would begin to hallucinate his bride in the nude, and then himself in the nude. This would lead to a discovery that he could not move his body and that he had no control over it. In turn this would then lead to the surprising discovery for him that he was sensing physical contact with his bride that would become more and more intimate and exciting, and that there would be nothing he could do to control his physical responses. However, there could be no completion of his uncontrolled responses until his bride so requested.

The trance state developed readily and in full accord with the instructions given above. At the conclusion of the trance state he was instructed, "You now know that you can, you are confident. In fact, you have succeeded, and there is nothing that you can do to keep from succeeding again and again."

Consummation was readily effected that evening. They were seen thereafter occasionally in the role of a family advisor, and their marriage has been happy for more than 10 years.

Another type of case concerned the small child who had been brought unwillingly to the office, and whose parents had both threatened and bribed him in relation to the office call.

## **REPORT NO. 5**

An example is that of an enuretic eight-year-old boy, half carried, half dragged into the office by his parents. They had previously solicited the aid of the neighbors on his behalf, and he had been prayed for publicly in church. Now he was being brought to a "crazy doctor" as the last resort, with a promise of a "hotel dinner," to be provided following the interview. His resentment and hostility toward all were fully apparent.

The approach was made by declaring, "You're mad and you're going to keep right on being mad, and you think there isn't a thing you can do about it, but there is. You don't like to see a 'crazy doctor,' but you are here and you would like to do something, but you don't know what. Your parents brought you here, made you come. Well, you can make them get out of the office. In fact we both can—come on, let's tell them to go on out." At this point the parents were unobtrusively given a dismissal signal, to which they readily responded, to the boy's immediate, almost startled satisfaction.

The writer then continued, "But you're still mad and so am I, because they ordered me to cure your bed wetting. But they can't give me orders like they give you. But before we fix them for that,—"with a slow, elaborate, attention-compelling, pointing gesture—"look at those puppies right there. I like the brown one best, but I suppose you like the black-and-white one, because its front paws are white. If you are very careful, you can pet mine too. I like puppies, don't you?"

Here the child, taken completely by surprise, readily developed a somnambulistic trance, walked over and went through the motions of petting two puppies, one more than the other. When finally he looked up at the writer, the statement was made to him, "I'm glad you're not mad at me any more and I don't think that you or I have to tell your parents anything. In fact maybe it would serve them just right for the way they brought you here if you waited until the school year was almost over. But one thing certain, you can just bet that after you've had a dry bed for a month, they will get you a puppy just about like little Spotty there, even if you never say a word to them about it. They just have to. Now close your eyes, take a deep breath, sleep deeply, and wake up awful hungry."

The child did as instructed and was dismissed in care of his parents, who had been given instructions privately. Two weeks later he was used as a demonstration subject for a group of physicians. No therapy was done.

During the last month of the school year the boy dramatically crossed off the current calendar day each morning.

Toward the last few days of the month he remarked cryptically to his mother, "You better get ready."

On the 31<sup>st</sup> day his mother told him there was a surprise for him. His reply was, "It better be black-and-white." At that moment his father came in with a puppy. In the boy's excited pleasure, he forgot to ask questions.

Eighteen months later, the boy's bed was still continuously dry.

## **REPORT NO. 6**

One final case concerns a 16-year-old high school girl, whose thumb-sucking was the bane of her parents, her teachers, her schoolmates, the school bus driver—in fact, the special abhorrence of everybody who came in contact with her.

After much effort on the part of her parents, the soliciting of the aid of the entire neighborhood, the intervention (as in the preceding case) by public prayer in church, the forcing of her to wear a sign declaring her to be a thumb-sucker, it was finally decided in desperation to consult, as a last and shameful resort, a psychiatrist.

The parents' first statement to the writer was to express the hope that therapy of their daughter would be based primarily upon religion. As matters progressed, a promise was extracted from them that after the girl became the writer's patient, for a whole month neither parent would interfere with therapy, no matter what happened, nor would a single word or look of admonition be offered.

The girl came unwillingly to the office with her parents. She was nursing her thumb noisily. Her parents were dismissed from the office and the door closed. As the writer turned to face the girl, she removed her thumb sufficiently to declare her dislike of "nut doctors."

She was told in reply, "And I don't like the way your parents ordered me to cure your thumb-sucking. Ordering me, huh! It's your thumb and your mouth, and why in hell can't you suck it if you want to? Ordering me to cure you. Huh! The only thing I'm interested in is why, when you want to be aggressive about thumb-sucking, you don't really get aggressive instead of piddling around like a baby that doesn't know how to suck a thumb aggressively."

"What I'd like to do is tell you how to suck your thumb aggressively enough to irk the hell out of your old man and your old lady. If you're interested, I'll tell you—if you aren't, I'll just laugh at you."

The use of the word "hell" arrested her attention completely—she knew that a professional man ought not to use that kind of language to a high school girl who attended church regularly. Challenging the inadequacy of her aggressiveness, two terms the school psychologist had taught her, commanded her attention still more.

The offer to teach her how to irk her parents, referred to so disrespectfully, elicited even more complete fixation of her attention, so that to all intents and purposes she was in a hypnotic trance.

Thereupon, in an intent tone of voice, she was told:

“Every night after dinner, just like a clock, your father goes into the living room and reads the newspaper from the front page to the back. Each night when he does that, go in there, sit down beside him, really nurse your thumb good and loud, and irk the hell out of him for the longest 20 minutes he has ever experienced.”

“Then go in the sewing room, where your mother sews for one hour every night before she washes dishes. Sit down beside her and nurse your thumb good and loud and irk the hell out of the old lady for the longest 20 minutes she ever knew.”

“Do this every night and do it up good. And on the way to school, figure out carefully just which crummy jerk you dislike most, and every time you meet him, pop your thumb in your mouth and watch him turn his head away. And be ready to pop your thumb back if he turns to look again.”

“And think over all your teachers and pick out the one you really dislike the most and treat that teacher to a thumb pop every time he or she looks at you. I just hope you can be really aggressive.”

After some desultory, irrelevant remarks the girl was dismissed and her parents summoned into the office. They were reminded of the absoluteness of their promise and the declaration was made that if they kept their promises faithfully, the girl’s thumb-sucking would cease within a month. Both parents affirmed their wholehearted cooperation.

On the way home the girl did not suck her thumb, and she was silent the entire trip. The parents were so pleased that they telephoned to report their gratification.

That evening however, to their horror, the girl obeyed instructions, as did they, all of which they reported unhappily by telephone the next day. They were reminded of their promise and of the writer’s statement of the girl’s prognosis.

Each night for the next 10 evenings the girl was faithful in her performance.

Then it began to pall on her. She began to shorten the time, then she began late and quit early, then finally she skipped, and then she forgot!

In less than four weeks the girl had discontinued her thumb-sucking, both at home and elsewhere. She became increasingly interested in the much more legitimate teenage activities of her own group. Her adjustments improved in all regards.

The girl was seen again in a social setting about a year later. She recognized the writer, viewed him thoughtfully for a few minutes, and then remarked, "I don't know whether I like you or not, but I am grateful to you."

## **DISCUSSION AND SUMMARY**

One of the most important of all considerations in inducing hypnosis is meeting adequately the patients as personalities and their needs as individuals. Too often the effort is made to fit the patients to an accepted formal technique of suggestion, rather than adapting the technique to the patients in accord with their actual personality situations. In any such adaptation there is an imperative need to accept and to utilize those psychological states, understandings, and attitudes that each patient brings into the situation. To ignore those factors in favor of some ritual of procedure may and often does delay, impede, limit, or even prevent the desired results. The acceptance and utilization of those factors, on the other hand, promotes more rapid trance induction, the development of more profound trance states, the more ready acceptance of therapy, and greater ease for the handling of the total therapeutic situation.

Another important consideration is the need to avoid a repetitious belaboring of the obvious. Once the patients and the therapist have a clear understanding of what is to be done, only fatigue is to be expected from further reiteration. The acceptance as an absolute finality of the patient's wants, needs, and what is to be done, and then expectantly and confidently awaiting the patients' responses, serve more readily to elicit the desired results than repetitious instructions for specific responses. This simplicity of instructions with adequate results is clearly illustrated in the second case report above.

In brief, in each of the above case reports an effort has been made to illustrate the utilization of patient behavior and patient needs as a naturalistic technique of hypnotic trance induction. Also, an effort has been made to demonstrate that the adaptation of hypnotic techniques to individual patients and their needs leads readily and easily to effective therapeutic results.

## **Suggested Readings**

Hypnotic Investigation of Psychosomatic Phenomena: Psychosomatic Interrelationships Studied by Experimental Hypnosis. *Psychosom. Med.*, January, 1943, 5, pp. 51-58.

(With Richard M. Brickner.) The Development of Aphasia-Like Reactions from Hypnotically Induced Amnesias: Experimental Observations and a Detailed Case Report. *Psychosom. Med.*, January, 1943, 5, pp. 59-66.

A Controlled Experimental Use of Hypnotic Regression in the Therapy of an Acquired Food Intolerance. *Psychosom. Med.*, January, 1943, 5, pp. 67-70.

Experimentally Elicited Salivary and Related Responses to Hypnotic Visual Hallucinations Confirmed by Personality Reactions. *Psychosom. Med.*, April, 1943, 5, pp. 185-187.

The Therapy of a Psychosomatic Headache. *J. Clin. and Exper. Hyp.*, October, 1953, I, pp. 2-6.

The Development of an Acute Limited Obsessional Hysterical State in a Normal Hypnotic Subject. *J. Clin. and Exper. Hyp.*, January, 1954, 2, pp. 27-41.

Special techniques of Brief Hypnotherapy. *J. Clin. and Exper. Hyep.*, April, 1954, 2 pp. 109-129.

A Clinical Note on Indirect Hypnotic Therapy. *J. Clin. and Exper. Hyp.*, July, 1954, 2, pp. 171-174.

# **Further Clinical Techniques of Hypnosis: Utilization Techniques**

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With the more common techniques of hypnotic trance induction the procedure is based primarily upon altering the subjects' activity of the moment and instructing them variously in a different forms of behavior. Thus the subjects may be told to sit quietly and comfortably in a chair, to fixate their gaze, to relax their bodies progressively, and to develop a trance state as they do this. Or they may be asked to close their eyes and to develop imagery of various types until a trance state develops. Similarly, in the hand-levitation technique a participatory attitude, an interest in the experiential aspects of the situation, and the development of ideomotor activity may all be suggested as a measure of inducing a trance.

Such techniques as these require a willing acceptance of, and cooperation with, an externally suggested or imposed form of behavior which may be either active or passive. Resistance to, or rejection of, this imposed behavior may require the operator to resort to another technique more readily accepted or more pleasing to the subjects. Or it may be met by a fatiguing of the subjects into an acquiescence by the operator's persistence, and sometimes it requires a postponement of the effort at hypnosis. Ordinarily one or another of these measures meets adequately the particular resistance problem presented by the individual patient, but there is always some risk that a change of technique, undue prolongation of effort, or postponement of the hypnosis will have an adverse effect upon a patient's acceptance of hypnosis as a personally possible experiential learning.

However, there is another type of patient actually readily amenable to hypnosis, but unresponsive and resistant to the usual induction techniques. While encountered more frequently in psychotherapeutic practice, they are met not infrequently in general medical and dental practice and are judged too frequently to be unsuitable for the use of hypnosis. These patients are those who are unwilling to accept any suggested behavior until their own resistant or contradictory or opposing behaviors have first been met by the operator. By reason of their physical conditions, states of tension or anxiety, intense interest, concern or absorption in their own behaviors, they are unable to give either actively or passively the requisite cooperation to permit an effective alteration in their behavior. For these patients what may be termed *Techniques of Utilization* often serve to adequately meet most of their special needs. But more than this these same techniques are readily applicable to the usual patients and frequently serve to facilitate the process of trance induction in average patients.

These techniques are in essence no more than a simple reversal of the usual procedure of inducing hypnosis. Ordinarily trance induction is based upon securing from the patients some form of initial acceptance and cooperation with the operator. In Techniques of Utilization the usual procedure is reversed to an initial acceptance of the patients' presenting behaviors and a ready cooperation by the operator however seemingly adverse the presenting behaviors may appear to be in the clinical situation.

To clarify and illustrate these various Techniques of Utilization, the following clinical examples will be cited:

### **EXAMPLE 1**

The patient entered the office in a most energetic fashion, declared at once that he did not know if he were hypnotizable, but that he would be willing to go into a trance if it were at all possible provided that the writer were willing to approach the entire matter in an intellectual fashion rather than in a mystical, ritualistic manner. He went on to declare that he needed psychotherapy for a variety of reasons, that he had tried various schools of psychotherapy extensively without benefit, that hypnosis had been attempted on various occasions and had failed miserably because of mysticism and a lack of appreciation for the "intellectual" approach.

Inquiry elicited that he felt that an "intelligent" approach signified not a suggestion of ideas to him but a questioning of him concerning his own thinking and feeling in relationship to reality. For example the writer, he declared, should recognize that he was sitting in a chair, that the chair was in front of a desk, and that these constituted absolute facts of reality and, as such, could not be overlooked, forgotten, denied, or ignored. In further illustration he pointed out that he was obviously tense and anxious and concerned about the tension tremors of his hands, which were resting on the arms of the chair, and that he was also highly distractible, noticing everything about him.

This last comment was seized upon immediately as the basis for the initial cooperation with him, and he was told, "Please proceed with an account of your ideas and understandings, permitting me only enough interruptions *to insure that I understand fully and that I follow along with you.* For example you mentioned the chair, but obviously you have seen my desk and have been distracted by the objects on it. Please explain fully."

He responded verbosely with a wealth of more or less connected comments about everything in sight, but at every slight pause the writer interjected a word or a phrase to direct his attention anew. These interruptions, made with increasing frequency, were of the following order: and that paperweight; the filing cabinet; your foot on the rug; the ceiling light; the draperies; your right hand on the arm of the chair; the pictures on the wall; the changing focus of your eyes as you glance about; the interest of the book titles; the tension in your shoulders; the feeling of the chair; the disturbing noises; disturbing thoughts; weight of hands; weight of feet, weight of problems, weight of desk; the stationery stand; the records of many patients; the phenomena of life, of illness, of

emotion, of physical and mental behavior; the restfulness of relaxation; the need to attend to one's needs; the need to attend to one's tension while looking at the desk or the paperweight or the filing cabinet; the comfort of withdrawal from the environment; fatigue and its development; the unchanging character of the desk; the monotony of the filing cabinet; the need to take a rest; the comfort of closing one's eyes; the relaxing sensation of a deep breath; the delight of learning passively; the capacity for intellectual learning by the unconscious. Various other similar brief interjections were offered, slowly at first and then with increasing frequency.

These initial interjections were merely supplementary to the patient's own train of thought and utterances, and the effect at first was simply to stimulate him to further effort. As this response was made, it became possible to utilize his acceptance of stimulation of his behavior by a procedure of pausing and hesitating in the completion of an interjection. This served to effect in him an *expectant dependency* upon the writer for further and more complete stimulation.

As this procedure was continued, gradually and unnoticeably to the patient his attention was progressively directed to inner subjective experiential matters, whereupon it became possible to use almost directly a simple, progressive relaxation technique of trance induction and to secure a light medium trance.

Throughout therapy for this patient further trance inductions were similar, although the procedure became progressively abbreviated.

## **EXAMPLE 2**

Comparable to the first patient was the case of a woman who presented a somewhat similar problem. She stated that in all previous attempts she had been defeated in her efforts to secure therapy by a compulsive attentiveness to the minutiae of the immediate environment, and that she invariably found difficulty in completing her history and in attending to what was said to her because of the overpowering nature of her need to attend to and to comment upon what she saw about her. (Even this small amount of history was interrupted by her inquiries about, or simple mention of, various objects in the office.) She explained further that a family friend, a psychiatrist who knew her well, had suggested that hypnosis might enable her to cooperate in therapy, and he had referred her to the writer.

Since she herself had impressed the writer as a possible candidate for hypnotherapy, and since little progress was being made in the interview, hypnosis was attempted by utilizing her own behavior as the technique most suited to be employed. This was done in the following fashion:

As she inquired about a paperweight on the desk, reply was quickly made, "It is on the corner of the desk just behind the clock." As she flicked her gaze to the clock and asked urgently, "What time is it?" she was answered with, "The minute hand indicates the same numeral as does the desk calendar."

There followed then a whole series of comments and inquiries by her without pause for any replies, and with a rapid shifting from one object or subject to another. Her entire behavior was similar to that of an unhappy small child, warding off questioning by the measure of forcing the direction of the interrogation into irrelevant, distracting avenues.

Once launched into her verbal flow, it was not possible to interrupt her verbally except with great difficulty, and then fruitlessly. However, the measure of extending a paper knife compelled her to make mention of it. As she responded and then continued in her monologue, the writer polished his glasses, again forcing her to make a comment in accord with her pattern of behavior. Next she was interrupted by a placing of the glasses in their case, then the desk blotter was shifted, a glance was directed at the bookcase, and the schedule book opened and closed. Each of these acts was fitted by her into her compulsive stream of utterances. At first these various acts were performed by the writer at intervals and rather quickly, but as she developed an attitude of expectation for the writer's silent interruptions, his movements were deliberately slowed and made with slight, hesitant pauses, which compelled her to slow down her own behavior and to await the writer's utilization of her conduct. Then the writer added to his silent indication of objects an identifying word or phrase of comment.

As this procedure was continued, it had a progressively profound inhibitory effect upon her, with the result that she began to depend more and more exclusively upon the writer to indicate either verbally or by gesture the next object she was to comment upon or to name. After about 40 minutes of this it became possible to instruct her to close her eyes and to name from memory everything that she had seen and to do this until she developed a deep hypnotic sleep. As she obeyed, she was prompted, "And now, 'paper-weight,' and deeper asleep; and now 'clock,' go even deeper into the trance," etc., until in another 10 minutes a profound somnambulistic trance state was secured.

Thereafter, through this measure of utilizing as an induction technique of her own pattern of resistant behavior, ready cooperation in therapy marked the clinical course of this previously "impossible" patient. Each therapeutic session at the beginning began with her compulsive behavior, which was immediately utilized as a technique of another induction of a therapeutic trance. Later a simple gesture indicating the chair in which she was to sit sufficed to elicit a trance state.

### **EXAMPLE 3**

Essentially the same procedure was employed with a male patient in his early thirties who entered the office and began pacing the floor. He explained repetitiously that he could not endure sitting quietly or lying on a couch and relating his problems and that he had repeatedly been discharged by various psychiatrists because they "accused" him of lack of cooperation. He asked that hypnotherapy be employed, if possible, since his anxieties were almost unendurable and always increased in intensity in a psychiatrist's office and made it necessary for him to pace the floor constantly.

There was still further repetitious explanation of his need to pace the floor which was finally successfully interrupted by the question, "Are you willing to cooperate with me *by continuing to pace the floor, even as you are doing now?*" His reply was a startled, "Willing? Good God, man! I've got to do it if I stay in the office." Thereupon he was asked to permit the writer to participate in his pacing by the measure of directing it in part. To this he agreed rather bewilderedly.

Thereupon he was asked to pace back and forth, to turn to the right, to the left, to walk away from the chair, and to walk toward it. At first these instructions were given in a tempo matching his step. Gradually the tempo of the instructions was slowed and the wording changed to, "Now turn to the right away from the chair in which you can sit; turn left toward the chair in which you can sit; walk away from the chair in which you can sit; walk toward the chair in which you can sit," etc. By this wording a foundation was laid for more cooperative behavior.

The tempo was slowed still more and the instructions again varied to include the phrase, "the chair which you will soon approach as if to seat yourself comfortably," and this in turn was altered to, "the chair in which you will shortly find yourself sitting comfortably." His pacing became progressively slower and more and more dependent upon the writer's verbal instructions until direct suggestions could be given that he seat himself in the chair and go deeper and deeper into a profound trance as he related his history.

Approximately 45 minutes were spent in this manner, inducing a medium trance that so lessened the patient's tension and anxiety that he could cooperate readily with therapy thereafter.

The value of this type of Utilization Technique probably lies in its effective demonstration to the patients that they are completely acceptable and that the therapist can deal effectively with them regardless of their behavior. *It meets both the patients' presenting needs and it employs as the significant part of the induction procedure the very behavior that dominates the patients.*

Another type of Utilization Technique is the employment of the patients' inner, as opposed to outer, behavior, that is, using their thoughts and understandings as the basis for the actual induction procedure. This technique has been employed experimentally and also more than once in therapeutic situations where the type of the patients' resistances made it advisable. Although it has been effectively used on naive subjects, intelligence and some degree of sophistication as well as earnestness of purpose, are ordinarily required.

The procedure is relatively simple. The subjects, whether experimental or therapeutic, are either asked or allowed to give expression freely to their thoughts, understandings, and opinions. As they do this, they are encouraged to speculate aloud more and more extensively upon what could be the possible course of their thinking and feeling if they were to develop a trance state. As patients do this, or even if they merely protest about

the impossibility of such speculation, their utterances are repeated after them in their essence, as if the operator were either earnestly seeking further understanding or were confirming their statements. Thus further comments by the subjects are elicited and repeated in turn by the operator. In the more sophisticated subjects there tend to be greater spontaneity, but occasionally the naive, even uneducated subjects may prove to be remarkably responsive.

#### **EXAMPLE 4**

An illustration of this technique is the following account, which has been considerably abbreviated because of the extensive repetition required. With this technique the patients' utterances may vary greatly from one instance to another, but the following example is given in sufficient detail to illustrate the method.

In seeking psychiatric help, this patient declared, "I've made no progress at all in three years of psychoanalysis, and the year I spent in hypnotherapy was a total loss. I didn't even go into a trance. But I tried hard enough. I just got nowhere. But I've been referred to you and I don't see much sense in it. Probably another failure. I just can't conceive of me going into a trance. I don't even know what a trance is." These remarks, together with the information received previously from the referring physician, suggested the possibility of employing her own verbalization as the induction procedure.

In the following account the writer's utterances are in italics:

*You really can't conceive of what a trance is—no, I can't, what is it?—yes, what is it?—a psychological state, I suppose—A psychological state you suppose, what else?—I don't know—you really don't know—no, I don't—you don't, you wonder, you think—think what—yes, what do you think, feel, sense?—(pause)—I don't know—but you can wonder—do you go to sleep?—no, tired, relaxed, sleepy—really tired—so very tired and relaxed, what else?—I'm puzzled—puzzles you, you wonder, you think, you feel, what do you feel?—my eyes—yes, your eyes, how?—they seem blurred—blurred, closing—(pause)—they are closing—closing, breathing deeper—(pause)—tired and relaxed, what else?—(pause)—sleep, tired, relaxed, sleep, breathing deeper—(pause)—what else—I feel funny—funny, so comfortable, really learning—(pause)—learning, yes, learning more and more—(pause)—eyes closed, breathing deeply, relaxed, comfortable, so very comfortable, what else?—(pause)—I don't know—you really don't know, but really learning to go deeper and deeper—(pause)—too tired to talk, just sleep—(pause)—maybe a word or two—I don't know (spoken laboriously)—breathing deeper, and you really don't know, just going deeper, sleeping soundly, more and more soundly, not caring, just learning, continuing ever deeper and deeper and learning more and more with your unconscious mind.*

From this point on it was possible to deal with her simply and directly without any special elaboration of suggestions, and subsequently trances were secured through the use of posthypnotic suggestions.

The above is simply a summary of the illustrative utterances and the method of utilization. In general there is much more repetition, usually only of certain ideas, and these vary from patient to patient. Sometimes this technique proves to be decidedly rapid. Frequently with anxious, fearful patients it serves to comfort them with a conviction that they are secure, that nothing is being done to them or being imposed upon them, and they feel that they can comfortably be aware of every step of the procedure. Consequently they are able to give full cooperation, which would be difficult to secure if they were to feel that a pattern of behavior was being forcibly imposed upon them.

The general principle of the above technique can be readily adapted into a separate Utilization Technique. Somewhat parallel in character, but clearly different, is its use as an effective reinduction for those patients who were previously good hypnotic subjects but who, for one reason or another, have become highly resistant to hypnosis despite outward cooperativeness.

The procedure is to get the subjects to recall from the beginning in a reasonably orderly, detailed manner the events of a previous successful hypnotic trance. As the subjects do this, repetitions of their statements are offered and helpful questions are asked. As they become absorbed in this task, the subjects revivify the previous trance state, usually regressing subjectively to that previous situation and developing a special rapport with the operator. The following example, in summary form, illustrates this Utilization Technique.

### **EXAMPLE 5**

A volunteer subject at a lecture before a university group declared, "I was hypnotized once several years ago. It was a light trance, not very satisfactory, and while I would like to cooperate with you, I'm quite certain that I can't be hypnotized." "Do you recall the physical setting of that trance?" "Oh, yes, it was in the psychology laboratory of the university I was then attending." "Could you, as you sit here, recall and describe to me the physical setting of that trance situation?"

He agreeably proceeded to describe in detail the laboratory room in which he had been hypnotized lightly, including a description of the chair in which he sat and a description of the professor who induced the trance. This was followed by a comparable response to the writer's request that he describe in as orderly and as comprehensive a fashion as possible his recollection of the actual suggestions given him at that time and the responses he made to them.

Slowly, thoughtfully, the subject described an eye-closure technique with suggestions of relaxation, fatigue, and sleep. As he progressed in his verbalizations of his recollections, his eyes slowly closed, his body relaxed, his speech became slower and more hesitant, and he required increasingly more prompting until it became evident that he was in a trance state. Thereupon he was asked to state where he was and who was present. He named the previous university and the former professor. Immediately he was asked to

also listen carefully to what the writer had to say, and he was then employed to demonstrate the phenomena of the deep trance.

This same technique of utilizing previous hypnotic learnings has been employed with patients, particularly those who develop inexplicable resistances to further hypnosis or who declare that they have been in hypnotherapy elsewhere and therefore doubt seriously their ability to develop a trance for a new hypnotherapist. The simple measure of seating the patient comfortably and asking him to give a detailed account of a previous successful trance experience results in a trance, usually decidedly rapidly and usually a revivification of the previous trance, or even a regression to that trance. This technique can also be utilized with one's own patients who have developed resistance to further hypnosis. In such instances resolution of the resistances is frequently facilitated and therapy greatly accelerated.

Another Utilization Technique, comparable to those immediately above, has been employed experimentally and clinically on both naive and experienced subjects. It has been used as a means of circumventing resistances, as a method of initial trance induction, and as a trance-reinduction procedure. It is a technique based upon an immediate, direct elicitation of meaningful, unconsciously executed behavior which is separate and apart from consciously directed activity, except that of interested attention. The procedure is as follows:

### **EXAMPLE 6**

Depending upon the subjects' educational backgrounds a suitable, casual explanation is given of the general concepts of the conscious and of the unconscious or subconscious minds. Similarly a casual though carefully instructive explanation is given of ideomotor activity with a citing of familiar examples, including hand levitation.

Then with utter simplicity the subjects are told to sit quietly, to rest their hands palm down on their thighs, and to listen carefully to a question that will be asked. This question, it is explained, can be answered only by their unconscious mind, not by their conscious mind. They can, it is added, offer a conscious reply, but such a reply will be only a conscious statement and not an actual reply to the question. As for the question itself, it can be one of several that could be asked, and it is of no particular significance to the personality. Its only purpose is to give the unconscious mind an opportunity to manifest itself in the answer given. The further explanation is offered that the answer will be an ideomotor response of one or the other hand upward, that of the left signifying an answer of "no," that of the right a "yes," to the question asked the unconscious mind.

The question is then presented: "Does your unconscious mind think that you can go into a trance?" Further elaboration is offered again: "Consciously you cannot know what your unconscious mind thinks or knows. But your unconscious mind can let your conscious mind discover what it thinks or understands by the simple process of causing a levitation of either the right or the left hand. Thus your unconscious mind can communicate in a visibly recognizable way with your conscious mind. Now just watch your hands and see

what the answer is. Neither you nor I know what your unconscious mind thinks, but as you see one or the other of your hands lifting, you will know."

If there is much delay, additional suggestions can be given: "One of your hands is lifting. Try to notice the slightest movement, try to feel and to see it, and enjoy the sensation of its lifting and be pleased to learn what your unconscious thinks."

Regardless of which hand levitates, a trance state supervenes simultaneously, frequently of the somnambulistic type. Usually it is advisable to utilize, rather than to test, the trance immediately since the subjects tend to arouse promptly. This is usually best done by remarking simply and casually, "It is very pleasing to discover that your unconscious can communicate with your conscious mind in this way, and there are many other things that your unconscious can learn to do. For example, now that it has learned that it can develop a trance state and to do it remarkably well, it can learn various trance phenomena. For instance you might be interested in ———," and the needs of the situation can then be met.

In essence this technique centers on the utilization of the subjects' interest in their own unconscious activity. A "yes" or "no" situation is outlined concerning thinking, with action contingent upon that thinking and constituting an overt unconscious communication, a manifestation basic to, and an integral part of, a hypnotic trance. In other words it is necessary for the subjects to go into a trance in order to discover the answer to the question.

Various experienced subjects approached with this technique have recognized it immediately and made comment to the effect: "How interesting! No matter which answer you give, you first have to go into a trance."

The willing subjects disclose from the beginning their unaffected interest, while resistant, unwilling subjects manifest their attitudes by difficulty in understanding the preliminary explanations, by asking repeatedly for instructions, and then by an anticipation of hand levitation by lifting the left hand voluntarily. Those subjects who object to trance induction in this manner tend to awaken at the first effort to test or to utilize the trance. Most of them, however, will readily go back into the trance when told, "And you can go into a trance just as easily and quickly as your unconscious answered that question, just by continuing to watch as your unconscious mind continues to move your hand up toward your face. As your hand moves up, your eyes will close, and you will go into a deep trance." In nearly all instances the subjects develop a trance state.

An essential consideration in this technique, however, is an attitude on the part of the operator of utter expectancy, casualness, and simplicity, which places the responsibility for any developments entirely upon the subject.

Patients' misunderstandings, doubts, and uncertainties may also be utilized as the technique of induction. Exemplifying this approach are the instances of two patients, both college-bred women, one in her late 30's and the other in her early 40's.

## **EXAMPLE 7**

The first patient expressed extreme doubt and uncertainty about the validity of hypnotic phenomena as applied to herself as a person, but explained that her desperate need for help compelled her to try it as a remotely possible means of therapy.

The other woman declared her conviction that hypnosis and physiological sleep were necessarily identical or, at the very least, equal and complementary component parts of a single psychophysiological manifestation and that she could not possibly go into a trance without first developing physiological sleep. This, she explained, would preclude therapy, and yet she felt that hypnosis offered the only possible, however questionable, means of psychotherapy for her, provided that the hypnotherapy was so conducted as to preclude physiological sleep. That this was possible she disbelieved completely.

Efforts at explanation were futile and served only to increase the anxiety and tension of both patients. Therefore an approach utilizing their misapprehensions was employed, and the technique, except for the emphasis employed, was essentially the same for both patients. This was done by instructing each that deep hypnosis would be employed and that each would cooperate in going into a deep trance by assessing, appraising, evaluating, and examining the validity and genuineness of each item of reality and of each item of subjective experience that was mentioned. In so doing each was to feel under obligation to discredit and to reject anything that seemed at all uncertain or questionable. For the one patient, emphasis was placed primarily upon subjective sensations and reactions with an interspersed commentary upon reality objects. For the other, attentiveness to reality objects as proof of wakefulness was emphasized with an interspersing of suggestions of subjective responses. In this manner there was effected for each woman a progressive narrowing of the field of awareness and a corresponding increase in a dependency upon, and a responsiveness to, the writer. As this state developed, it became possible to induce in each a somnambulistic trance by employing a simple eye-closure, progressive-relaxation technique slightly modified to meet the special needs of each patient.

To illustrate the actual verbalization employed, the following sample of utterances, in which the emphasis is approximately evenly divided between subjective aspects and reality objects, is offered:

As you sit comfortably in that chair, you can feel the weight of your arms resting on the arms of the chair. And your eyes are open, and you can see the desk, and there is only the ordinary blinking of the eyelids, which you may or may not notice, just as one may notice the feeling of the shoes on one's feet and then again forget about it. And you really know that you can see the bookcase, and you can wonder if your unconscious has noted any particular book title. But now again you can note the feeling of the shoes on your feet as they rest on the floor and at the same time you can become aware of the lowering of your eyelids as you direct your gaze upon the floor. And your arms are still resting their weight on the arms

of the chair, and all these things are real, and you can be attentive to them and sense them. And if you look at your wrist and then look at the corner of the room, perhaps you can feel or sense the change in your visual focus and perhaps you can remember when, as a child, you may have played with the experience of looking at an object as if it were far off and then close by, and as associated memories of your childhood pass through your mind, they can range from simple memories to tired feelings because memories are real. They are things, even though abstract, as real as the chair and the desk and the tired feeling that comes from sitting without moving, and for which one can compensate by relaxing the muscles and sensing the weight of the body, just as one can feel so vividly the weariness of the eyelids as fatigue and relaxation develop more and more. And all that has been said is real and your attention to it is real, and you can feel and sense more and more as you give your attention to your hand or to your foot or the desk or your breathing or to the memory of the feeling of comfort some time when you closed your eyes to rest your gaze. And you know that dreams are real, that one sees chairs and trees and people and hears and feels various things in his dreams and that visual and auditory images are as real as chairs and desks and bookcases that become visual images.

In this way, with increasing frequency, the writer's utterances became simple, direct suggestions for subjective responses.

This technique of utilizing doubts and misunderstandings has been used with other patients and with experimental subjects, and it also adapts well to the use of hand levitation as a final development, since ideomotor activity within the visual range offers opportunity for excellent objective and subjective realities.

Another Utilization Technique centers around the need that some potentially excellent subjects have to resist and reject hypnosis completely as a personal experience until after it becomes, paradoxically, an accomplished fact for them.

Occasionally such a person, because of naiveté or misdirected resistance, may even develop a somnambulistic trance, but thereafter is likely either to reject hypnosis completely or to limit unduly and inexplicably his capacity for hypnotic responses. More frequently such persons remain seemingly unhypnotizable, often despite an obvious capacity for responsiveness, until their special individual needs are met in a manner satisfying to them. Those who permit themselves limited hypnotic responses may for example develop an excellent obstetrical anaesthesia but remain incapable of dental anaesthesia, or vice versa. But should by some chance the second type of manifestation be secured, there may occur a loss of the capacity for the first type, or there may be a loss of capacity for all hypnotic responses. Another example is the similar type of patient in psychotherapy who will hypnotically respond only to specific types of circumscribed therapeutic problems.

On the whole these individuals constitute seemingly impossible or unpredictable and unreliable hypnotic subjects until their special needs are met, whereupon they can then become remarkably competent subjects.

Following are accounts of this type of subject, encountered in both experimental and clinical work.

### **EXAMPLE 8**

A 20-year-old woman, a member of a group of psychology students actively engaged in experimental hypnosis both as subjects and operators, failed completely to develop any trance phenomena despite many hours of endeavor to go into a trance. She had originally expressed a conviction that hypnosis was impossible as a personal experience, but that she hoped to learn otherwise. Finally two of her associates, both competent as operators and as somnambulistic subjects, suggested a visit to the writer as a last resort. The situation was explained in full, and Miss X reaffirmed both her conviction and her hope, and she requested the writer to make every possible effort to induce a trance. Her entire appearance and behavior suggested that she was essentially a most responsive type of personality.

She was found to be outwardly most cooperative but actually completely resistive and unresponsive hypnotically, even after three hours of intensive effort with a great variety of both direct and indirect techniques. This served to confirm Miss X's conviction of her unhypnotizability and to suggest to the writer the experimental possibility of utilizing her need to resist and reject hypnosis as a personal experience as a means of effecting paradoxical trance phenomena for her.

To achieve this Miss X was reminded that her two companions, A and B, were excellent somnambules and could enter a deep trance at a moment's notice. A and B were then openly instructed to remain continuously in the state of psychological awareness that existed for them at the moment and not to betray in any way to Miss X whether or not they had spontaneously gone into a trance state in response to the writer's efforts with Miss X. (They had not developed trance states, a fact obvious to the writer but not to Miss X.)

She was then challenged to scrutinize A and B carefully and to state definitely if she knew if they were in a trance, while A and B in turn were told to answer honestly with a simple nod or shake of the head any question put to them when so instructed by the writer.

Miss X confessed her inability to identify the state of awareness of either A or B. She was reminded that she was awake and could not develop a trance state and hence could not manifest trance phenomena, but that A and B, being experienced subjects, could do so readily. She agreed, and the statement was made that, if A and B were in a trance state, negative visual hallucinations could be elicited. Again she agreed. Turning away from the three of them and facing the office wall, the writer offered the following instructions:

Miss X, I want you to observe carefully the responses that A and B make, since I shall not be looking at them, and at the end of my remarks I shall ask them a special question which they are to answer by either a nod or shake of the head, as I explained before. All of you know, do you not, the fish pond [a campus landmark], and all of you can nod your head in answer. You have seen it many times, you know it well, and you can see it any time you want to. Now, Miss X, observe A and B carefully and be ready to report their answer, and A and B, while Miss X continues to await your response, DO NOT SEE [speaking softly, emphatically, and looking intently and pointing with slow deliberation at the office wall that was well within Miss X's field of vision], DO NOT SEE THE FISH POND RIGHT THERE. And you don't see the fish pond, do you?" A and B both shook their heads negatively, and Miss X excitedly declared, "They are both in a trance. They are showing negative hallucinations."

Without comment to her the writer asked A and B if they saw the students walking past the fish pond or the fish and plants in the water. Again they shook their heads negatively.

Thereupon the writer suggested to Miss X that A and B be left to their own devices while she and he discussed hypnosis. She agreed and almost immediately declared that the demonstration of negative visual hallucinations on the part of A and B had convinced her in some way that she could be hypnotized and that she would be glad to volunteer at any time to go into a trance, that she was certain that she could go into a deep trance.

Instead of replying directly to her statement she was asked if she were willing to talk to A and B. Upon her assent they were told to ask Miss X the written questions the writer had just handed to them. They asked her if she could see the fish pond and the students walking past it. Upon her affirmative reply she was asked to state exactly where she was. She described herself as standing with them and with the writer some 10 feet away from the campus fish pond.

She was then told by the writer that A and B would be awakened from their "trance" by the simple measure of having them, while she did likewise, close their eyes, and then at the count of three there would be a full awakening from all trance states with the continuing ability to go into a trance at any desired future time for any legitimate purpose. She awakened from her trance as instructed with a complete spontaneous amnesia for trance events and with an apparent persistence of her original ideas of her unhypnotizability. The trio was then dismissed, with A and B privately instructed to avoid all mention of hypnosis.

The next day Miss X again volunteered as a subject at the psychology laboratory and developed rapidly a profound somnambulistic trance. So pleased was she that she visited the writer that evening with the request that he make another attempt to hypnotize her. She responded with a deep trance almost immediately, and thereafter did extensive work as an experimental subject.

## **EXAMPLE 9**

A clinical instance in which this same technique was employed is exemplified by an obstreperous 25-year-old patient for whom hypnotherapy was not indicated. Nevertheless he repeatedly demanded hypnosis and in the same breath declared himself unhypnotizable. On one occasion he forced the issue by demanding absolutely, "Hypnotize me even though I'm not hypnotizable."

This demand was met by employing softly spoken suggestions of slow, progressive relaxation, fatigue, and sleep. Throughout the hour that this was done, the patient sat on the edge of his chair, gesticulated, and bitterly denounced the entire procedure as stupid and incompetent. At the close of the session the patient declared that his time and money had been wasted, that he could "remember every ineffectual, stupid suggestion" that had been offered, and that he could "remember everything that took place the whole time."

The writer immediately seized upon these utterances to declare somewhat repetitiously, "Certainly you remember. You are here in the office. Naturally here in the office you can remember everything. It all occurred here in the office, and you were here, and here you can remember everything." Impatiently he demanded another appointment and left angrily.

At the next appointment he was deliberately met in the reception room. He immediately inquired if he had kept his previous appointment. Reply was given evasively that surely he would remember if he had done so. He explained that on that day he had suddenly found himself at home sitting in his car unable to remember if he had just returned from his appointment or were just leaving for it. This question he debated for an indefinite period of time before he thought of checking his watch, and then he discovered that the time was long past the proper hour. However, he was still unable to decide the problem because he did not know how long he had debated the question. Again he asked if he had kept his previous appointment, and again he was assured evasively that surely he would remember if he had.

As he entered the office, he stopped short and declared, "I did too keep my appointment. You wasted my time with that silly, soft, gentle, ineffectual hypnotic technique of yours, and you failed miserably."

After a few more derogatory comments from him, he was maneuvered into returning to the reception room, where he once more manifested an amnesia for the previous appointment as well as his original inquiries about it. His questions were again parried, and he was led back into the office, where for a second time he experienced full recall of the previous appointment.

Again he was induced to return to the reception room with a resultant reestablishment of his amnesia, but upon reentering the office, he added to his recollection of the previous appointment a full recall of his separate entrances into the reception room and the accompanying amnesic states. This bewildered and intrigued him to such an extent that he spent most of the hour going from the office to the reception room and back again,

experiencing a full amnesia in the reception room and full recollection, inclusive of the reception room manifestations, of the total experience in the office.

The therapeutic effect of this hypnotic experience was the correction almost immediately of much of the patient's hostile, antagonistic, hypercritical, demanding attitude and the establishment of a good rapport and an acceleration of therapy, even though no further hypnosis was employed.

The technique employed in these two instances is somewhat comparable to the procedure reported by this writer in "Deep Hypnosis and Its Induction" (Erickson, 1954), and it has been used repeatedly with various modifications. Patients requiring the use of this technique are usually those with distressing needs for a sense of utter security in the competence of the therapist. Its advantage as a therapeutic technique lies in the fact that it permits the patients to achieve that sense of security through experiential learning as a single separate process rather than through a prolonged demonstration of competence always subject to their criticism and rejection.

In essence this technique is no more than a modification of a much simpler elementary procedure—such as the hand clasp and the postural sway—sometimes so effectively employed to correct minor attitudes of doubt and resistance to trance induction. Its advantage lies in the effectiveness with which it can both elicit the phenomena of even deep hypnosis and correct various problems of resistance to hypnosis and to therapy.

Another Utilization Technique was employed during a lecture and demonstration before a medical student body. One of the students proceeded, at the beginning of the lecture, to heckle the writer by denouncing hypnosis as a fraud and the writer as a charlatan, and he declared that any demonstration using his fellow students would be a prearranged hoax perpetrated upon the audience. The measures employed were as follows:

### **EXAMPLE 10**

Since he persisted in his noisy, adverse comments as the lecture proceeded, it became necessary to take corrective action. Accordingly the lecture was interrupted and the writer engaged in an acrimonious interchange with the heckler, in which the writer's utterances were carefully worded to elicit an emphatic contradiction from the heckler, either verbally or by action.

Thus he was told that he had to remain silent; that he could not speak again; that he did not dare to stand up; that he could not again charge fraud; that he dared not walk over to the aisle or up to the front of the auditorium; that he had to do whatever the writer demanded; that he had to sit down; that he had to return to his original seat; that he was afraid of the writer; that he dared not risk being hypnotized; that he was a noisy coward; that he was afraid to look at the volunteer subjects sitting on the platform; that he had to take a seat in the back of the auditorium; that he did not dare to come up on the platform; that he was afraid to shake hands in a friendly fashion with the writer; *that he did not dare to remain silent*; that he was afraid to walk over to one of the chairs on the platform

for volunteer subjects; that he was afraid to face the audience and to smile at them; that he dared not look at or listen to the writer; that he could not sit in one of the chairs; that he would have to put his hands behind him instead of resting them on his thighs; that he dared not experience hand levitation; that he was afraid to close his eyes; that he had to remain awake; that he was afraid to go into a trance; that he had to hurry off the platform; that he could not remain and go into a trance; that he could not even develop a light trance; that he dared not go into a deep trance, etc.

The student disputed either by word or action every step of the procedure with considerable ease until he was forced into silence. With his dissents then limited to action alone, and caught in his own pattern of contradiction of the writer, it became relatively easy to induce a somnambulistic trance state. He was then employed as the demonstration subject for the lecture most effectively.

The next weekend he sought out the writer, gave an account of his extensive personal unhappiness and unpopularity, and requested psychotherapy. In this he progressed with phenomenal rapidity and success.

This technique, either in part or in toto, has been used repeatedly with various modifications, especially with defiant, resistive patients, and particularly "incorrigible" juvenile delinquents. Its significance lies in the utilization of the patients' ambivalences and the opportunity such an approach affords the patients to successfully achieve contradictory goals, with the feeling that these derived out of the unexpected but adequate use of their own behavior. This need to fully meet the demands of the patients, however manifested, ought never to be minimized.

Another Technique of Utilization centers in a combination of utilization, distraction, and participatory activity, all of which are illustrated in the following account.

### **EXAMPLE 11**

Seven-year-old Allan fell on a broken bottle and severely lacerated his leg. He came rushing into the kitchen, crying loudly from both pain and fright while shouting, "It's bleeding; it's bleeding." As he entered the kitchen, he seized a towel and began wildly swabbing to wipe up the blood. As he paused in his shouting to catch his breath, he was told urgently, "Wipe up that blood; wipe up that blood; use a bath towel; use a bath towel; use a bath towel, a bath towel, not a hand towel, a bath towel," and one was handed to him. He dropped the towel he had already used and was immediately told urgently, repetitiously, "Now wrap it around your leg, wrap it tightly, wrap it tightly." This he did awkwardly but sufficiently effectively, whereupon with continued urgency he was told, "Now hold it tight, hold it tight; let's get in the car and go to the doctor's office and hold it tightly."

All the way to the surgeon's office careful explanation was given him that his injury was really not large enough to warrant as many stitches as his sister had had at the time of her hand injury. However, he was urgently counseled and exhorted that it would be his

responsibility entirely to see to it that the surgeon put in as many stitches as possible, and he was thoroughly coached all the way there on how to emphatically demand his full rights.

At the surgeon's office, without awaiting any inquiry, Allan emphatically told the nurse that he wanted 100 stitches. She made no response but merely said, "This way, sir, right to the surgery." As she was followed, Allan was told, "That's just the nurse. The doctor is in the next room. Now don't forget to tell him everything just the way you want it."

As Allan entered the room, he announced to the surgeon, "I want 100 stitches. See!" Whipping off the towel, he pointed at his leg and declared, "Right there, 100 stitches. That's a lot more than Betty Alice had. And don't put them too far apart. And don't get in my way. I want to see. I've got to count them. And I want black thread, so you can see it. Hey, I don't want a bandage. I want stitches!"

It was explained to the surgeon that Allan understood well his situation and needed no anaesthesia, and to Allan the writer explained that his leg would first have to be washed. Then he was to watch carefully and notice the placing of the sutures to make sure they were not too far apart and that he was to count each one carefully and not to make any mistakes in his counting.

While the surgeon performed his task in puzzled silence, Allan counted the sutures and rechecked his counting, demanded that the sutures be placed closer together, and complainingly lamented that he would not have as many as his sister. His parting statement to the surgeon was to the effect that with a little more effort the surgeon could have given him more sutures.

On the way home Allan was comforted regarding the fewness of the sutures and adequately complimented on his competence in overseeing so well the entire procedure. It was also suggested that he eat a big dinner and go to sleep right afterward so that his leg could heal faster, and so that he would not have to go to the hospital the way his sister did. Full of zeal, Allan did as suggested.

No mention of pain or anaesthesia was made to Allan at any time, nor were any "comforting reassurances" offered. Neither was there any formal effort to induce a trance. Instead various aspects of the total situation were utilized to distract his attention completely away from the painful considerations and to focus it upon values of importance to a seven-year-old boy and to secure his full, active cooperation and intense participation in dealing with the entire problem adequately.

In situations such as this the patient experiences as a personality a tremendously urgent need to have something done. Recognition of this need and a readiness to utilize it by doing something in direct relationship to the origin of the need constitutes a most effective type of suggestion in securing the patient's full cooperation for adequate measures.

## **EXAMPLE 12**

To cite another similar example, when little Roxanna came sobbing into the house, distressed by an inconsequential (not to her) scratch upon her knee, adequate therapy was not assurance that the injury was too minor to warrant treatment, nor even the statement that she was mother's brave little girl and that mother would kiss her and the pain would cease and the scratch would heal. Instead effective therapy was based upon the utilization of the personality's need for something to be done in direct relationship to the injury. Hence a kiss *to the right*, a kiss *to the left*, and a kiss *right on top* of the scratch effected for Roxie an instantaneous healing of the wound, and the whole incident promptly became a part of her thrilling historical past.

This technique, based as it is upon the utilization of strong personality needs, is effective with both children and adults, and it can be adapted readily to situations requiring in some way strong, active, intense responses and participation by the patient.

These techniques of suggestive therapy in one form or another are in the repertoire of every experienced mother, and they are as old as motherhood itself. Every experienced general practitioner employs these techniques regularly without necessarily recognizing them as formally based upon suggestion. But with the development of clinical hypnosis there is a need to examine and give recognition to those psychological principles that enables the communication of desirable understandings at times of stress.

Another type of Utilization Technique is based upon a process of conditioning behavioral manifestations and then interpolating into them new and corrective forms of behavior.

## **EXAMPLE 13**

An example of this is the therapy employed to correct the nightmares developed during convalescence by seven-year-old Robert, a traffic casualty, suffering from a skull fracture, brain concussion, fractured thighs, and other varied injuries.

Upon his return home in a body cast from the hospital, he was noted to suffer from almost nightly nightmares. These followed essentially the same pattern each time. They began with moaning, followed by frightened crying, then shuddering sobs, and finally culminated with the frightened cries, "Oh, oh, it's going to hit me—it's going to hit me," followed by a shuddering collapse into silence and slow, shallow breathing, as if he had fainted.

Sometimes several nightmares would occur in a single night, sometimes only one, and sometimes he would skip a night. He had no waking memory of these nightmares, and he disclaimed dreams.

Upon first noting the nightmares, an effort was made to arouse him from them, but the first few attempts were futile. When the lights were turned on in his bedroom, his eyes were found to be wide open, his pupils dilated, his face contorted in an expression of terror, and his attention could not be secured. When, however, he repeated his phrase of

"It's going to hit me," his eyes would shut, his entire body would relax, and he would remain unresponsive as if in a faint for several minutes. Then he would seem to lapse into physiological sleep from which he could be aroused, but with no memory of the nightmare.

When all these findings had been confirmed repeatedly, a technique was devised to secure his attention and to correct the nightmare. The approach to the problem was relatively simple and comprehensive, and was based upon the assumption that the nightmares were essentially a distorted and disorderly, perhaps even fragmentary reliving of the accident. Therefore they could not be distorted or overthrown, but would have to be accepted and then modified and corrected.

The procedure was as follows: At the beginning of his nightmare, as his moaning began, Robert was told, in a cadence and tone that matched his outcries, "Something's going to happen—it's going to hurt you bad—it's a truck—it's coming right at you—it's going to hurt you—it's going to hit you—hit you—hurt you—hit you—hurt you awful bad." These utterances were matched with his outcries and were terminated with his collapse. In other words an effort was made to parallel in time and in character the inner subjective stimulation. In this way it was hoped to effect an association between the two types of stimulation and possibly to condition the one to the other.

The first night that the procedure was employed Robert had two nightmares. The next night again he had two more. After a long wait, and while he was sleeping peacefully, the procedure was employed again, and a third nightmare developed almost immediately.

On the third night, after he had been sleeping peacefully for some time and before a nightmare had developed, the procedure was deliberately employed twice. Both times a nightmare resulted, apparently in response to the procedure. A third nightmare was later elicited that night by the same procedure but with the addition of a new phrase that could possibly capitalize upon wishes and feelings without distorting the reality involved. This phrase was the statement that, "There is another truck on the other side of the street, and that one won't hit you. It will just go right by." The reason for this type of interpolation was to employ an idea that would be entirely acceptable and yet would not alter the historical reality. Then, if accepted, the way would be paved for more pertinent interpolations.

The next night he developed a nightmare spontaneously, which was treated by the modified procedure. A second nightmare was deliberately induced later that night and handled by a still further modification of the procedure, the change being the addition of, "but you will get well, all well, all well."

Thereafter, night after night, but only when he developed a spontaneous nightmare, was this general procedure followed. His utterances and cries were matched, but each time with a progressive modification of the writer's utterances, until the final content was nothing more than, "There's a truck coming, and it is too bad it is going to hit you. You will have to go to the hospital, but that will be all right because you will come home, and

you will get all well. And all the other cars and trucks on the street you will see, and you will keep out of their way."

As the change was made progressively in the statements said to him, the character and severity of the nightmares slowly changed and lessened until it seemed that Robert was merely rousing slightly and listening for the reassurance offered.

From beginning to end the therapy of the nightmares covered a period of one month, and the last three were scarcely more than a slight seeming arousal from sleep, as if to assure himself vaguely of the writer's presence. Thereafter, to his present age of 14, he has continued to sleep well and without a recurrence of his nightmares.

The following Utilization Technique is one based upon the employment of seemingly inconsequential, irrelevant considerations and an apparent disregard or oversight of the major issues involved. Following are two illustrative instances.

### **EXAMPLE 14**

A 70-year-old woman born in a rural community had not been allowed to attend school, since her parents did not believe in education for women. At the age of 14 she married a youth of 16, whose formal education was limited to his signature for signing checks and "figgering." The bride was pleased with her husband's greater education and resolved to have him teach her, since she resented her lack of schooling. This hope did not materialize. During the next six years she was kept busy with farm work and pregnancies, but she did learn to "figger" excellently but only mentally, since it was apparently impossible for her to learn to write numerals. Neither was she able to learn to sign her name.

At the age of 20 she hit upon the idea of furnishing room and board for the local rural schoolteacher, with the intention of receiving, in return for reduced rates, the much desired instruction in reading and writing.

Each school year for the next 50 years she made and kept her agreement, and the teachers hopefully began the attempt. Finally, some soon, others only after prolonged labor, abandoned the task of teaching her as hopeless. As the community grew, the number of teachers increased until she was boarding, year after year, a total of four. None succeeded, despite the sincerity of her desire and the honesty of their effort. Her children went through grade school, high school, and college, and they too tried to instruct their mother but without results.

Each time she was given a lesson, invariably she developed, after the manner of a seriously frightened small child, a state of mental blankness or a state of frantic, disorganized effort to please that led to a total impasse.

It was not that "Maw" was unintelligent. She had an excellent memory, good critical judgment, listened well, and was remarkably well informed. She often gave strangers,

through her conversation, the impression that she had a college education, despite her faulty grammar.

At the time she was seen by the writer, she and her husband had been retired for some years, but she was still boarding teachers, three at that time. These three had made it a joint project for several months to teach her the elements of reading and writing but were finally forced to give up. They described her as:

It's always the same. She starts the lesson period full of enthusiasm and hope, and that's the way you feel, too. But inside of a minute you'll swear that you must be talking a foreign language to her because she doesn't understand a thing you say or do. No matter what you say or do, she just sits there with those eager, troubled eyes, trying hard to make sense out of the nonsense you seem to be saying to her. We've tried everything. We've talked to some of our friends who have tried. She is just like a badly scared child who has blanked out completely, except that she doesn't seem scared but just blanked out. Because she is so intelligent, we just couldn't believe that she couldn't learn easily.

The patient herself explained, "My sons that graduated from engineering told me that I've got the right gears for reading and writing, but that they are of different sizes, and that's the reason they don't mesh. Now you can file them down or trim them to size because I've got to learn to read and write. Even boarding three teachers and baking and cooking and washing and ironing for them ain't half enough work for me, and I get so tired sitting around with nothing to do. Can you learn me?"

This history and much more comparable material suggested a long, persistent, circumscribed psychological blocking that might yield to hypnotic suggestion. Accordingly she was accepted as a patient with the rash promise that she would be reading and writing within three weeks' time, but *without being taught anything that she did not already know and had known for a long time*.

Although this declaration puzzled her, so great was her desire to learn that she was easily persuaded to cooperate fully in every way with the writer, *even though he might not teach her anything except how to let her read and write, which she already knew*.

The next step was to induce by simple, direct suggestions a light-to-medium trance, predicated, in accord with her own unique neurotic needs, upon *her full understandings that it would be something apart from, and completely unrelated to, her learning problem; that there would be no effort to teach her anything she did not already know; that the trance would be employed only to let her do things she already knew how to do; and that everything undertaken would be something she had learned about a long time ago*. With her responses to hypnosis contingent upon these understandings, it became possible to induce a trance and to instruct her to remain in it until otherwise instructed and to obey completely and without argument every instruction given her *provided that it was always something in relationship to things she had already learned a long time ago*.

Thereupon paper and pencil were pushed toward her and she was instructed “*not to write* but just pick up the pencil any old way and hold it in your hand any old way. You and I know you can do that. Any baby can pick up a pencil in any old way.

O. K. Now make a mark on the paper, any old scribbling mark *like a baby that can't write makes*. Just any old crooked mark! That's something you don't even have to learn.

O. K. Now make a straight mark on the paper, like you make with a nail when you want to saw a board straight or with a stick when you mark a row in the garden. You can make it short or long or straight up and down or just lying down.

O. K. Now make a mark like the hole in a doughnut and then two marks like the halves of the doughnut when you break the doughnut in halves.

O. K. Now make two slanted marks, one like one side of the gable roof of a barn and the other like the other side.

O. K. Now make a mark like a horse's crupper standing on the little end. And now poke the pencil in the paper and make just a little spot.

O. K. Now all those marks you made you can make different sizes and in different places on the paper and in different order and even one on top of the other or one next to another. O. K.?

Now, those marks that you made and can make again any old time [straight, vertical, horizontal, and oblique lines; circles, semicircles, etc.] *are writing, but you don't know that it is writing. You don't have to believe that it is writing*—all you have to do is know that you can make those marks and that isn't hard to know, because you already know it. Now I'm going to awaken you and do the same thing all over, and I want you to practice at home making those marks. O. K.?

The procedure of the trance state was repeated with no additional elaboration in the waking state and with the same instructions. She was dismissed, not entirely pleased but somewhat intrigued, with instructions to return the next day.

A medium-to-deep trance was readily induced, and it was learned that she had spent approximately two hours “marking marks!” The explanation was then offered her that the only difference between a pile of lumber to construct a house and the completed house was that the latter was the former “merely put together.” To this she agreed wonderingly. She was then shown a rectangle and told, “That's a rough plan of the side of a 40-foot barn.” The rectangle was then bisected vertically and she was told, “Now it's a rough plan of two 20-foot long barns end to end.” Still wondering, she agreed.

She was then shown a neat copy of the "marks" she had made the previous day and was asked to select those that could be used to make a small-scale "rough plan" of the side of a 40-foot barn and to "mark out" such a plan. She was then asked to "split it in the middle" and then to "mark out one 20-foot side of a barn up on top of another one the same size." Bewilderedly she did so.

She was then asked to use the oblique lines to "mark out" the gable end of a roof and then one of the straight lines to "stretch halfway up from one side to the other like a scantling used to brace the end of the roof." Obediently she did so and she was emphatically assured that she now knew how to put marks together, but that she should take half of the doughnut hole and use it repeatedly to "round off the corners of the side of the barn." This she did.

Thereupon she was emphatically instructed as an indisputable item of information that not only did she know how to write, but the fact had been irrefutably established. This dogmatic statement puzzled her greatly but without diminishing her cooperation. Before she could organize any thoughts on this matter, she was peremptorily instructed to inspect the "marks" and "put them together in twos and threes in different ways."

With a little judicious maneuvering and indirect guidance on the part of the writer, it was possible to secure among the various "combinations" she made the complete alphabet printed in block form and with some of the letters formed in rounded fashion. These were carefully reduplicated on a separate sheet of paper. Thereupon a newspaper advertisement, magazine advertisements, and a child's textbook were brought out, and systematically it was pointed out that she, without recourse to a copying procedure, had printed each of the letters of the alphabet. She then was maneuvered into orienting her recognition of the letters not by comparing her printed letters with those in the book but by validating the letters in the book by their similarity to her own constructions. Great care was exerted to prevent her from losing this orientation. Her excitement, pleasure, and interest were most striking. The entire procedure was then repeated in the waking state.

The next problem was to interest her safely in "letter building" and "word building" and the "naming," not reading each new construct. Each step was accomplished first in the trance state and then repeated in the waking state. No mention was made of writing or reading; circumlocutions were used. For example she would be told, "Take some of these straight or crooked lines and build me another letter. Now build me a few letters alongside of each other and name the word."

Then she was taught that "a dictionary is not a book to read; it is a book to look up words in, just like a picture book isn't for reading, it's just to look at pictures." With the dictionary she was enabled to discover that she could use vertical, horizontal, oblique, or curved lines to "build" any word in it, and great care was taken to emphasize the importance of "the right name for each word, just like you never forget the *correct* name for a harrow, a disk, or a cultivator."

As a succeeding step she was taught the game of anagrams, which was described as entirely comparable to tearing down “the back porch and using the old lumber to build on a new room with a kitchen sink. “ The task of “naming” the words became most fascinating to her.

The final step was to have her discover that “naming words is just like talking,” and this was achieved simply by having her “build” words taken from the dictionary, apparently chosen at random but carefully selected by the writer, which she was asked to “set down here or there on this straight line.” Since the words were not put down in correct order but were in correct spacing, the final result when she was called upon to “name” them astonished her. The words were, “Get going Ma and put some grub on the table.” As she completed “naming” the words, she declared, “Why, that’s what Pa always says—it’s just like talking.”

The transition from “talking words” to “reading words” was then a minor matter. Within three weeks’ time she was spending every spare minute with her dictionary and a *Readers’ Digest*. She died of a cerebral hemorrhage at the age of 80, a most prolific reader and a frequent letter writer to her children and grandchildren.

### **EXAMPLE 15**

The second instance concerns a nine-year-old girl who began failing all of her school work and withdrawing from social contacts. When questioned, she would reply either angrily or tearfully in a defensive fashion, “I just can’t do nothing.”

Inquiry disclosed good scholastic work in previous years but poor adjustment on the playground in that she was inept, hesitant, and awkward. However, her parents were concerned only about her scholastic rating and sought psychiatric aid from the writer for their daughter.

Since the girl would not come to the office, she was seen each evening in her home. One of the first bits of information elicited was that she didn’t like certain girls because they were always playing jacks or roller skating or jumping rope. “They never do anything that’s fun.” It was learned that she had a set of jacks and a ball but that she “played terrible.” The writer challenged her, on the grounds that infantile paralysis had crippled his right arm to the effect that he could play a “more terrible” game than she could. The challenge was accepted, but after the first few evenings a spirit of good competition and good rapport developed, and it was relatively easy to induce a light-to-medium trance. Some of the games were played in the trance state and some in the waking state. Within three weeks she was an excellent player, though her parents were highly displeased because of the writer’s apparent lack of interest in her scholastic difficulties.

After three weeks of playing jacks the writer declared that he could be worse on roller skates than she could be, since his leg was crippled. There followed the same course of developments as with the jacks, only this time it took only two weeks for her to develop reasonable skill.

Next she was challenged to jump the rope and see if she could possibly teach the writer this skill. In a week's time she was adept.

Then the writer challenged her to a bicycle race, pointing out that he actually could ride a bicycle well, as she herself knew. The statement was boldly made that he could beat her in a race, and only her conviction that he would defeat her allowed her to accept. However, she did promise in the trance state to try hard. She had owned a bicycle for more than six months and had not ridden it more than one city block.

At the appointed time she appeared with her bicycle but demanded, "You have got to be honest and not just let me win. You got to try hard, and I know you can ride fast enough to beat me, so I'm going to watch you so you can't cheat."

The writer mounted his bike, and she followed on hers. What she did not know was that the use of both legs in pedaling constituted for the writer a serious handicap in riding a bicycle and that ordinarily only his left leg is used. But as the girl watched suspiciously, she saw the writer most laboriously pedaling with both feet without developing much speed. Finally convinced, she rode past to win the race to her complete satisfaction.

That was the last therapeutic interview. She promptly proceeded to become the grade school champion in jacks and rope jumping. Her scholastic work improved similarly.

Years later the girl sought out the writer to inquire how he had managed to let her excel him in bicycle riding. She explained that learning to play jacks and jump the rope and to roller skate had had the effect of bolstering her ego immensely, but that she had had to discredit those achievements considerably because of the writer's physical handicaps. The bicycle riding, however, she knew was another matter.

She explained that at that time she knew the writer to be a good bicyclist, and she was certain that he could beat her and that she had no intention of letting the race be handed to her. The fact that the writer had genuinely tried hard and that she had beaten him convinced her that she "could do anything." Elated with that conviction, she had found school and all that it offered a most pleasant challenge.

A definitely different type of Utilization Technique is one in which the general reality situation is employed as the essential component of the induction procedure. A basic consideration is a seemingly incidental or unintentional interference with the subjects' spontaneous responses to the reality situation. This leads to a state of uncertainty, frustration, and confusion in the subjects, which in turn effects a ready acceptance of hypnosis as a possible means of resolving the subjective situation. It is a combined utilization-confusion technique and can be used experimentally or clinically on both children and adults. It is frequently a technique of choice, and sometimes it is very simply and rapidly accomplished, with shy, timid children and with self-conscious adults. An illustrative instance is as follows:

## **EXAMPLE 16**

At a lecture before the professional staff of a hospital a student nurse who had neither experienced nor witnessed hypnosis was authoritatively instructed by her superior to act as a "volunteer" subject for the writer. Although actually interested, she manifested definite resentment as she hesitantly came forward. Advantage was taken of her emotional state to employ a utilization technique that would effect, first, a state of confusion to obviate resistance and, second, the ready induction of hypnosis.

As she approached the front of the lecture room from a side aisle, a chair was moved somewhat ostentatiously into place for her. When she was within six feet of the chair, she was asked, "Will you sit in *this* chair *here*?" As the word "this" was spoken, the writer's left hand was carefully placed on the back of that chair, as if to point it out. As the word "here" was spoken, the writer gestured with his right hand, as if indicating a chair to the side of the actual chair. There was a momentary pause in her behavior, but as she continued her approach, the chair was pushed gently toward her, causing a slight but definitely audible noise as it scraped on the floor. As she came still closer to the chair, it was pulled slightly to one side away from her, and immediately, as she seemed to note this, it was pushed back an inch or so, and then another inch or so forward and to the side toward her. All of this she noted because the writer's left hand on the back of the chair constituted a focusing point for her gaze.

By this time she had reached the chair, had turned, and had begun to lower her body into it. As soon as her knees were bent, the chair was rotated somewhat noisily about one inch, and as she paused again momentarily to turn her head to look at the chair, the writer took hold of her right elbow and moved it away from her body slightly and then a bit forward. As she turned to look in response to this, her elbow was released and her right hand and wrist were gently taken and moved a little upward and then downward. As she shifted her gaze from her elbow to her hand, she was told quietly, "Just sit *all* the way down in the chair, and as you do so, just close your eyes and go 'way deeply into the trance, and as you continue to sit there, sleep ever more deeply in a hypnotic trance." As she settled in the chair, the additional statement was made, "And now you can take a deep comfortable breath while I go on with my lecture." Thereupon without any further delay or training she was immediately employed to demonstrate the somnambulistic trance and many other phenomena of the deep trance. She was awakened from the trance approximately an hour later.

An aspect of the original reality situation constituting a part of the utilization technique was reestablished by the measure of the writer, at the moment of awakening her, again holding her right hand and wrist as he had been doing at the moment of trance induction. Accordingly, upon awakening she reverted at once to the original state of conscious bewilderment which had been interrupted by the rapid development of a deep trance. This she demonstrated, along with a total amnesia for the events of the preceding hour, by stating, "But you've got me so confused I don't know what to do. Is it all right to sit this way, and what do you want me to do with my hand?" Reply was made, "Would you like to go into a trance?" She answered, "I don't really know. I'm not sure. I don't even know if I can be hypnotized. I suppose maybe I could. I'm willing to try if you want me to."

She still had no awareness that she had been in a trance and that an hour had elapsed. This amnesia continued to persist. She was asked what she meant by saying that she was confused. "Well, when I started to come up here, you asked me to sit in this chair, and then you started moving it first one way and then another, and then somehow you started to move my arm, and before I knew what you wanted, you started moving my hand, and I'm still confused. What do you want me to do?"

In this last question the subject defines adequately the goal of a confusion technique, whether based upon direct suggestions eliciting variously oriented and contradictory responses from the subject or, as in this instance, upon a Utilization Technique employing various aspects of the reality situation. This goal is an urgent, pressing need on the part of the subject to have the confusion of the situation clarified, and hence the presentation of the suggestion of trance state as a definitive idea is readily accepted and acted upon. In this instance she accepted at once the instructions, "Sit down," "Close your eyes," "Sleep deeply." These instructions dispersed for her all of the confusion she had been experiencing.

For this subject, as in other instances in which this type of technique has been employed, the utilization of the reality situation was of such character that she could formulate no subjectively adequate responses. This resulted in an increasing need to make some kind of a response. As this desire increased, an opportunity for response was presented to her in a form rendered *inherently appropriate and effective by the total situation*. Thus the very nature of the total situation was utilized in the technique of induction.

To summarize, a number of special techniques of hypnotic trance induction are reported and illustrated by clinical and experimental examples. These methods are based upon the utilization of the subjects' own attitudes, thinking, feeling, and behavior, and aspects of the reality situation, variously employed, as the essential components of the trance induction procedure. In this way they differ from the more commonly used techniques which are based upon the suggestion of the subjects of some form of operator-selected responsive behavior. These special techniques, while readily adaptable to subjects in general, demonstrate particularly the applicability of hypnosis under various conditions of stress and to subjects seemingly not amenable to its use. They also serve to illustrate in part some of the fundamental psychological principles underlying hypnosis and its induction.

# **Transcript of a Trance Induction With Commentary**

Milton H. Erickson, Jay Haley, and John H. Weakland

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The art of offering hypnotic suggestions in such fashion that the subject can accept them and then respond to them is difficult to explain. As an approach to this involved task, the following exposition of a trance induction is offered to clarify in some ways how suggestions are offered, presumably why they are effective, the methods that may be utilized to integrate one suggestion with others and to incorporate various responses into others, and to demonstrate the readiness with which communication with a subject can be established at various levels, both separate and distinct as well as interrelated.

The situation and procedure are given in the full detail afforded by tape recordings, together with a brief explanatory introduction, with only that editing requisite to make the conversational situation intelligible to the reader.

One evening in 1956 Milton H. Erickson hypnotized a subject during a weekly seminar he conducted in Phoenix. This trance induction was recorded. The following day he listened to the recording and discussed the induction with Jay Haley and John Weakland. This conversation was also recorded. What follows is a verbatim transcript of the two recordings: the trance induction recording is presented in the first column; the conversation about the trance induction (as the initial tape is played back) is given in the second.

This discussion was initiated by Jay Haley and John Weakland as part of their research on the Communications Research Project directed by Gregory Bateson. The project was financed by the Macy Foundation, administered by Stanford University, and located at the Veterans Administration Hospital in Palo Alto, California. The "double bind" mentioned in this paper is discussed in "Toward a Theory of Schizophrenia," *Behavioral Science*, 1, No. 4, 1956.

The hypnotic subject, who will be called Sue here, was not entirely a naive hypnotic subject. A stage hypnotist had tried to hypnotize her and rejected her, giving her the idea that she was a poor hypnotic subject. Dr. Erickson reports, "I met her for the first time at Dr. M's. I looked her over and nodded to Dr. M that she would make a good subject, and I indicated that later I wanted Dr. M to work on her. This was done by signals that Sue could not see. I went ahead on this occasion to work with another subject, and then I asked Sue to sit down in a chair beside me. I asked her if she'd like to be hypnotized, and she said, 'Yes, but I'm not a good subject.' I told her I thought she was a very good subject. I took hold of her arm and tested it for catalepsy. At the same time I tried to get some eye fixation. There was a fairly responsive eye fixation, then she shook her head and said, 'I don't think I can be hypnotized.' I asked her if she wanted Dr. M to work on

her, and she did, so Doctor M had her look at the reflection of the light on the doorknob. Dr. M worked quite hard with her and produced practically no results. There was closing of the eyelids, but no catalepsy, no hand levitation, and rather restless behavior. When Dr. M told her to arouse, she explained that she wasn't so sure she had gone into a trance, but that she had tried very hard to cooperate. Perhaps she 'cooperated too hard.' She didn't think she would make a good subject, even though Dr. Erickson said she would. She thought that perhaps I had made a mistake. The next time hypnosis was attempted was in her home. I had two good subjects there, and Sue really watched both of them. She was the hostess and was answering the telephone and worrying about the children making a noise. She said, 'I'd like to be hypnotized, but I'm afraid I can't be.' I asked her to sit down and be a subject. She sat down, and I tried to hypnotize her. She was restless and said, 'I can't be hypnotized, I'm no good as a subject. I'm really not listening to you. I don't think I could be a subject, but I'd really like to be one.' That was the second effort. This recording constitutes the third attempt."

Before beginning his induction that evening, Erickson purposely arranged the seating of the people in the room. A short time later he rearranged the seating, having Sue move each time. His later comment on this was, "I put her in the chair that I later sat in, then I shifted her to the couch. I was in her place. And she had obeyed me by shifting to the couch. She'd put me in her place, with all its subtle implications. If there had been some other chair there, even if it had been more convenient to sit in it, I would have sat in her chair. The shifting prior to that implied that if there is prior shifting, there can be subsequent shifting. I introduced the idea of shifting earlier to make it completely acceptable. Then there is no chance that she is going to resist the shift." He also pointed out that on the couch Sue sat in a position where a good subject had been sitting. The transcript of the recording of the comments on the induction, and the induction itself, follows:

### Induction

### Comment

*H:* Before we begin I wonder if you might comment on how you knew Sue was a good subject. How do you tell that a person is going to be a good subject?

*E:* When you see a person who shows decidedly responsive behavior. For example John is introduced to you. You see him making up his mind, 'So I'll shake hands, and I will say such and such,' worrying about details of the introduction. That's the kind of personality that's very difficult. But if you see a person being introduced and he looks expectantly toward the other person, he shows responsive behavior and natural behavior. When I visited Dr. M and was introduced to Sue, there was that completely responsive

## **Induction**

*E:* I think, Sue, it's time for you to go into a trance.

*S:* O.K.

*E:* You aren't at home. That's a nice couch. Now I wonder what some of the things are that you'd like to experience in a deep trance.

[Fluttering of eyelids.]

## **Comment**

behavior. She was perfectly willing to respond, "How do you do, Dr. Erickson," perfectly willing to shake hands. She was waiting for cues, waiting to meet what I did. I watched her being introduced to other people, men and women. That complete responsiveness of her behavior, that's one way you can pick out a good subject. And she is that type.

*W:* What do you think made it difficult for her to be hypnotized the first two times?

*E:* She hadn't made up her mind about it. Her husband had raised the question with her previously, and she discounted him. She knew that he wasn't experienced. She hadn't met me, and this stage hypnotist certainly did not make a good impression on her. It was still an open question. Let's wait and see what the behavior is like, then I can respond. —That was her attitude.

*W:* You've already made it different from the last time.

*H:* You didn't seem to want her to respond to that last question. You said, "I wonder what some of the things are," but you didn't pose it as a question that she should answer. Is it just something that you wanted her to think about?

*E:* You open the question, bring about a readiness to respond, and inhibit the response, you postpone the response until later.

*H:* It increases the later response if you open one up and then inhibit it?

*E:* You're in a responding position.

*W:* I think maybe it's particularly appropriate here, partly because she has had the uncertainty about responding.

*E:* You're emphasizing the fact that she's going to respond, that she's all set to

## Induction

*E:* And slowly go deeper and deeper. [Long pause.] As you go deeper and deeper asleep, you can free your hands, separate them. And let them slightly, slowly, gradually begin to lift involuntarily. Lifting just a little.

*E:* Lifting just a little bit more. Lifting — lifting —and lifting —and your lids are closing.

*E:* And your hand lifting just a bit more. Lifting. Lifting. Lifting a bit. Forefingers moving. Moving just a little bit. Lifting, lifting again. And then the next finger will lift. The whole hand is stiff, lifting. Lifting.

## Comment

*respond.*

*W:* We can comment here on that. You say lifting just a little. I'm not sure whether you see a very, very minimal lifting or what, but I noticed that you certainly take—I'm not sure whether you took no response as a response, or the tiniest response and said, "It's lifting." There were a number of times there when you said it when I couldn't quite detect whether anything was happening or not.

*E:* There was one thing that happened. Put your hand on your thigh, take a deep breath. What happened to your hand?

*W:* It lifts!

*E:* You time the inspiration. And they haven't got an opportunity to deny it . . . Later on I thought I would emphasize that by taking every other inspiration to say "lifting."

*H:* Every other one?

*E:* Yes.

*W:* There's a little more going on than meets the eye!

*H:* I hadn't noticed the inspirations in this at all.

*E:* Nobody notices inspiration and expiration. They're used to that.

*H:* Were her lids closing at that moment? It seems to me usually you say, "Your lids will begin to close." You put it in the future. I noticed that you used "are" there, the present.

*E:* A very slight quiver of the lids. They are closing.

*H:* O. K.

*E:* A rising inflection. Lifting [demonstrating voice rising as he says it.] And I think you probably noticed the - - "lifting."

### Induction

Lifting up. Lifting, lifting, lifting up.

E: The elbow is bending. The wrist is lifting up.

E: The whole arm lifting slowly—lifting—lifting a bit more. And lifting. [Pause.] Lifting. Lifting a bit more. The elbow is bending.

E: The elbow is lifting. The hand is lifting—lifting more and more. [The hand has lifted slightly. Long pause.] Now I want you to go deeper and deeper asleep. And to signify that you will, I want your head to nod forward *slowly*.

### Comment

H: The movement of the body, too.

E: The movement of my body. And of your own unconscious localization of the sound. [Demonstrating exaggeratedly as he straightens up.] Lifting. And the conveyance of the change of location. But you never pay attention to location of sounds consciously; you accept them.

H: Was the elbow bending?

E: A slight quiver of the biceps.

E: The tendency there was for me to say, “Lifting a bit more, lifting a bit more, *lifting a bit more*.” The different volume in my voice.

H: Raising the volume?

E: Raising the volume. And you only raise the volume when it’s *really* happening. Same words, but a different volume in the words. And you throw in that change of volume.

W: There are so many levels on which the suggestive effect can be paralleled. Instead of being different levels of message contradicting each other, this is where they reinforce.

H: It certainly nodded slowly.

W: By saying “slowly” or “just a little” or something like that, when the subject is only responding minimally anyway . . .

E: You are accepting their minimal performance, and it’s good.

W: And you’re avoiding asking for something more than you’re likely to get at the moment.

<b>Induction</b>	<b>Comment</b>
<i>E:</i> [Pause.] Slowly nodding forward, still more—still more. [Pause.]	<i>E:</i> You're content with what you're receiving, and they know it. And since you <i>are</i> content, they must be responding. It's fallacious, I know. And you'd rather they'd keep on being slower and <i>slower</i> . "Just a little bit more." How small is a little? But it is more.
<i>E:</i> And still more. [Pause.] And you can go deeper and deeper asleep. [Pause.] And I want you to go deeper and deeper asleep.	<i>E:</i> A lapse of time demonstrates that it has moved forward. [Fallacious but subjectively convincing.]
<i>E:</i> And I'm going to count for <i>you</i> . One . . .	<i>W:</i> You shift there from "you can go deeper asleep," which is certainly a reasonable statement from the depth she is in at that point. And then "I want you to go deeper."
	<i>E:</i> You can, and want you to—and we've joined forces.
	<i>H:</i> Has she ever heard this count to 20 before?
	<i>E:</i> Yes.
	<i>H:</i> If she had never heard it before, would you have had to say . . .
	<i>E:</i> I would have explained it to her.
	<i>H:</i> That when you reached 20 she'd be deeply asleep.
	<i>E:</i> But she'd heard it before; she'd seen it used before. She already knew what counting meant. She knew what counting meant in relationship to a good subject. And she saw a good subject respond to the count. And so when I started counting for her, she had to bring up all her previous knowledge, all her previous understanding, but that was hers.
	<i>W:</i> It makes it . . .
	<i>E:</i> All the more accepted.
	<i>W:</i> It makes it more if you don't explain it. I mean, if you explain it, that implies that you've got to emphasize it, whereas if you don't explain it, that implies she already knows.

<b>Induction</b>	<b>Comment</b>
	<i>H:</i> She's got to volunteer the understanding, yes. Well, what would you do with a naive subject who'd never heard a count before? How would you phrase that?
	<i>E:</i> Then I'd explain how I could count from I to 20, and at 5 a quarter asleep, and so on.
	<i>H:</i> But I was interested in the preliminaries. I was not sure whether you'd explained first, or whether you counted to 5 and then said a quarter asleep and let them figure out that if 5 is a quarter asleep, 10 must be half, 15 three quarters, and 20 the full count.
	<i>E:</i> It depends upon the intelligence of the subject and the readiness at grasping it. Some people even with college degrees can't understand what you mean when you say you can count to 20 by ones, or twos, that you're also telling them you can count by fours, fives. So you have to be rather elaborate. Some you can tell "I can count to 20 in various ways," and they think—"by ones, twos, by fours and fives."
	<i>H:</i> Is it more effective if they figure it out?
	<i>E:</i> More effective, because they're taking the ball and carrying it.
	<i>H:</i> So really the minimum explanation you can get by with, the better.
	<i>E:</i> The more participation you can get from them, the better.
<i>E:</i> . . . 2, 3, 4, 5, 6, 7, 8, 9, 10—and half asleep—11, 12, 13, 14, 15 —three quarters asleep—16, 17, 18, 19, 20, and take a deep breath and go way deep sound asleep. Way deep sound asleep.	<i>H:</i> And you suggested the deep breath by taking one yourself.
	<i>E:</i> The very way [demonstrating with varying pauses and inflections] that I say, '16, 17, 18, 19, 20, now take a deep

## Induction

## Comment

breath.' [Exhaling on 19 and 20, air gone when he says, "now take a deep breath."]

*W:* You need one by the time you get there.

*E:* The rise in force.

*H:* You rise in force and drop when you say "go to sleep."

*E:* There are *certain things*—that you want to learn. Completely specific and so general.

*E:* . . . way deep sound asleep. And I want you to be sleeping sounder and sounder all the time. Sounder and sounder. Now there are certain things that you want to learn.

*H:* And you had nothing in particular in mind at that moment that she wanted to learn?

*E:* The development of the evening would single out the "certain things." But it sounds so specific, yet really it is so general.

*H:* It certainly is.

*E:* And I want you to be sure that you'll learn, and I want you to think clearly in your own mind of all the various things you *want* to learn. And then I want you to realize that you *can* learn them, and that you *will* learn them.

*E:* That you *can*, that you *will*.

*W:* And you want her to realize this, which implies, of course, it is absolutely so, and all she has to do is realize that it is so.

*E:* And she's obligated in all directions. She's having time to realize.

*H:* At this point you had already lifted her arms. Now when you lifted her left hand—as I remember, she hadn't levitated at all prior to that.

*E:* Just fluttered the arm.

*H:* Yes. When you lifted her left arm, you put it in a position where it would remain

<b>Induction</b>	<b>Comment</b>
	very easily, even if she were awake. You established that, and then you lifted the right arm into a position that required more catalepsy.
	<i>E:</i> That is, I established <i>easy</i> catalepsy, a very convincing experience subjectively. And it's really so. Therefore it's so on the other side.
	<i>H:</i> Yes. Why couldn't you have worked further to get levitation for her?
	<i>E:</i> In ordinary life she's rather quick and active. When she relaxes, she's slow. It takes too much time.
	<i>H:</i> When you say in this last piece, "I really <i>want</i> you to do it," now this is related to something that interests us. How you use her concern about you.
	<i>W:</i> Isn't it also a little more than that, as I heard it, a little bit, it's "I really <i>want</i> you—to do that."
	<i>E:</i> You want to learn certain things, I really want you to. She's already had a suggestion that "there are certain things you want to learn."
	<i>H:</i> But was this a second suggestion on how there are certain things she was going to do?
	<i>E:</i> The background was: There are certain things that she wants to learn. I'm the teacher, therefore I really want her to do these things because I as the teacher can help her to learn the things that she really wants to learn. So it becomes a cooperative venture.
	<i>H:</i> Well, it's cooperative, but it's using her concern about her to a great extent.
	<i>E:</i> She wants me to be the teacher.
	<i>H:</i> Yes, that's right.
<i>E:</i> . . . and you may enjoy doing them.	<i>H:</i> Why do you use the word "may" there? Doesn't that pose the problem "you may not" when you use "may" instead of "will"?

## Induction

E: After you are awakened, Sue, I want you to tell me that you weren't *really* in a trance. And I want you to believe it.

E: And I want you to be emphatic in your statement. Quite emphatic. And you will be, will you not? [Pause.] And whatever else you need to do you will do, will you not?

E: [Pause.] And after you are awakened, you will *not* believe that you were in a trance. You'll be emphatic in your belief; you'll be polite about it. But you will know that you were not in a trance.

## Comment

E: I'd just told her "I want you to do this." That's awfully dictatorial. Let's contrast it with permissiveness. "You *may* enjoy doing this." So I've stepped from my completely dictatorial to a permissive role.

H: Did you assume she would do that anyhow?

E: There's a good possibility. So whatever negative thing she has said will really be a positive thing.

H: You put a frame around it.

H: What did you have in mind there?

E: Whatever else you need to do, you really will do.

W: Isn't that also in a way an amnesia suggestion?

E: Essentially.

W: So you take her tendency to produce denial and produce a phenomenon with it.

E: With it. And I say "*emphatic*," and my enunciation of the word "emphatic" is also emphatic. "But you'll be polite about it." And there again, "you'll be polite about it" intensifies the need to deny, because she is going to be polite, she's under tremendous compulsion, cultural compulsion, to be polite. But the situation has been created in which she's got to be polite about a certain thing. She's under compulsion to be polite. That requires her to deny that she was in a trance.

H: She's under compulsion to be polite about something she feels emphatically

## Induction

## Comment

E: And now I'm going to awaken you, Sue. And I'll awaken you. [Pause.] I'll awaken you by counting backward from 20 to 1. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1—awaken. Do you feel a bit tired, Sue? [Sue clears throat.]

Do you think I'm right in thinking you're a good hypnotic subject. [She shakes her head.] You don't.

S: I sure try.

E: You surely do. How many times do you think we'll have to try?

S: Oh, I hope it won't be long [Laughing slightly.]

E: [Joining laugh.] Yes, I hope it won't be long until I get that fly. [He holds the fly swatter. Before trance he and subject had been pursuing a fly.]

S: Didn't you get him yet?

E: No.

S: Oh, my!

about.

E: Yes. But she's also under compulsion to be polite. And there's only one thing in that situation, and so she has to be polite about it, thereby validating the existence of that one thing.

E: Notice the change in my voice to fit a casual, social scene.

H: Is her statement "I hope it won't be long" also a statement "I hope I won't have to deny this very long"?

E: That may be, but I'm really switching away from the trance with that fly.

H: You surely are.

E: And she's joining me in that fly business.

W: You switch away from it; that makes easier the belief that it didn't happen.

E: That's right.

H: Do you think she had amnesia for it then?

E: I don't know. But we really got on the subject of the fly, and she could really join me, so we could share something in common.

H: She sounded very girlish when she joined you.

## Induction

[Inaudible comments from others present about flies.]

E: Have you any idea what time it is?

S: No.

E: Five minutes of eight.

E: Really?

E: Maybe you've been asleep.

S: I don't think so.

E: Sure about that?

S: Pretty sure

E: You know, there's an astonishing phrase in the language?

E: You know, there's an astonishing phrase in the language?

S: Yes?

E: For a complete dinner we speak of it as everything from soup to nuts, do we not?

S: Yes.

E: And you really *understand* what that means, don't you? Soup to nuts. And then

## Comment

E: We could really be two against that adverse crowd.

W: Yes

E: The others didn't really approve of us, but we two were kindred souls in the absurd pursuit of the fly.

H: You established that earlier, as I remember.

W: It just struck me that you brought up the question of time here, and then you brought it up later about how long she would feel—how much time had passed—was this a setup?

E: Yes, that is, I had a whole lot of setups. Here, there, everywhere. Knowing that I could not use all the setups, but I would be certain to use some of them. Not knowing what will develop, better have plenty of setups that you can use. A multitude of preliminary suggestions offers an opportunity for subsequent selection and use.

H: She wasn't emphatic there.

E: "Understand" is the word. And all I'm telling her is to prepare herself to

### Induction

let's see, there's another phrase, everything from A to Z. It's pretty conclusive, isn't it? And inclusive. And you really *understand* what A to Z means.

E: And then you can vary the phrase. Everything from 1 to 20. [Pause.] From 1 to 20 and . . . take a deep breath. Go way deep asleep. [Pause.]

E: That's right. And you can really do it, can't you? [Pause.]

And you can, can't you?

E: And you really can. You can nod your head. [Pause.] It rather surprised you, didn't it?

### Comment

*understand*. It's a distraction, the soup to nuts, A to Z, *understand*.

H: Is that just a distraction, or is that a statement that there's going to be a completion, from soup to nuts, from A to Z, from 1 to 20?

E: Yes, soup to nuts tells her the type of understanding. But she can start thinking about soup-nuts, A-Z, but understands puts it back . . .

H: One question comes up here. I notice that you repeat that "everything from 1 to 20" twice. Sometimes you repeat things, and sometimes you just drop them casually, saying it once. I wonder why it's necessary to repeat it.

E: Well, I wanted her to go deeply into a trance. H: And repetition does that.

E: Yes.

E: Always match your positives to your negatives. "And you *can* . . ." If they're going to say "can't," better anticipate them.

H: I see. So that when you say, "And you can, " they don't think "but I can't."

E: I've beaten them to it. I've said they can't, it's been said, they don't need to say it; therefore, not being able to say it, they can't act upon it. And the use of that "can't you" has a positive effect. "And you *can*, can't you?" You've got a negative positively stated; it prevents them from saying "I can't."

H: Is it the same with "And you will, won't you?"

E: Yes.

H: Did you pick that up from her, or just assume it?

<b>Induction</b>	<b>Comment</b>
	<i>E:</i> It did surprise her.
	<i>H:</i> How did you know?
	<i>E:</i> She was thinking “soup to nuts,” A to Z, 1 to 20. And then surprised that soup to nuts, A to Z, could also be 1 to 20.
	<i>H:</i> Then you assumed the surprise; you didn’t see from her expression that she was surprised. <i>E:</i> From the suddenness of her reaction to it, you can legitimately deduce surprise. I don’t recall that I saw any particular expression of surprise.
<i>E:</i> [Long pause.] After you are awakened again, Sue—and I ask you about going into a trance, I want you to tell me that you weren’t asleep the second time, that you were the first time. And you’re most insistent on that, and you will repeat that, Sue, will you not?	<i>H:</i> I just remember wondering at the time whether you were seeing something I wasn’t seeing or whether you just assumed it.
	<i>W:</i> Now by changing your “no” to the second one, you begin to get your acceptance catching up as you go along?
	<i>E:</i> Yes. First I had her deny the first trance. Now I’m nullifying that denial.
	<i>W:</i> By giving her another “no” to work on in the meantime.
	<i>E:</i> And in order to work on the second negation, she’s got to affirm the first.
	<i>H:</i> A use of double binds! <i>E:</i> What else can she do? <i>W:</i> Well, one might approach that question by saying, “Suppose someone said that to you, what would you do?”
	<i>E:</i> Every manipulator works it on that basis, too.
	<i>H:</i> Well, when you get two like that, it does put her in a position where she has to affirm one of them in order to deny the other, yes.

<b>Induction</b>	<b>Comment</b>
	<i>E:</i> In order to deny one of them, she has to affirm the other. The affirmation of one of them is the means of denying the other.
	<i>H:</i> That's a classic double bind you've got them.
	<i>W:</i> And why can't she see it or comment on it?
	<i>E:</i> In other words why doesn't she say, "I wasn't asleep either time." We're talking about two separate trances. (They were compartmentalized.)
	<i>H:</i> She couldn't comment on both with one word like "either," you mean.
	<i>E:</i> That's right.
<i>E:</i> And now I'm going to awaken you. I'm going to count backward from 20 to 1. 20, 15, 10—half awake—and 5, and 4, and 2, 3, 4, and 5, and 6, 7, 8, 9, 10—half asleep—and 9 and 8 and 7 and 6, 5, 4, 3 [slight pause], 2, 1. Wake up.	<i>W:</i> Did you pause there to emphasize that the 2 was coming up again? It seemed as if you got down to 3, and just before the 2, that was the reversal point.
	<i>E:</i> Just a wee bit louder.
	<i>H:</i> What effect does it have when you give her the rough bounce but only up to 10?
	<i>E:</i> "I can put you in any level of trance." And simply, and easily, and comfortably. And she is going to know that I said "4, 2—3, 4." Perhaps I said that 3 to correct myself. I shouldn't have skipped 3. I really shouldn't have, supposedly. And it's good that I said: 4, 5, 6. And then the goodness relates to going back into the trance.
	<i>H:</i> That's the soft bounce.
<i>E:</i> Thirsty?	
<i>S:</i> Yes.	
<i>E:</i> Be horrible if you could not pick up that glass of water, wouldn't it, Sue?	
<i>S:</i> Yes.	<i>H:</i> O. K. What about that?

<b>Induction</b>	<b>Comment</b>
	<i>W:</i> Yes, how did all of that work?
	<i>E:</i> She awakened with an eager look, the wetting of her lips, and “be horrible [after a pause] if you couldn’t pick up a glass of water.”
	<i>H:</i> Is “be horrible” then a statement about her feelings of thirst?
	<i>E:</i> Yes. What I said was “be horrible if you couldn’t get that drink,” I also said <i>be horrible. Be</i> , the verb to <i>be</i> . It was a command.
	<i>H:</i> You were commanding her to be horrible. <i>E:</i> Yes.
	<i>H:</i> Now how does that keep her from reaching for a glass of water?
	<i>E:</i> That’s comforting, that’s pleasing, that’s not horrible. And it would be horrible if she couldn’t get that glass of water.
	<i>H:</i> It would be the same if you said “be uncomfortable.” “You would be uncomfortable if you couldn’t reach for that glass of water.”
	<i>E:</i> “It would be uncomfortable if you couldn’t reach that glass of water.” But “it would” be uncomfortable.
	<i>H:</i> What did you say? [They listen again.]
	<i>E:</i> There was no “it would” there.
	<i>H:</i> There certainly wasn’t. Well, why did you choose “be horrible?”
	<i>E:</i> Because she was licking her lips. You don’t say “uncomfortable,” you use a stronger word.
	<i>H:</i> Well, why did she obey that suggestion if she were awake?
	<i>E:</i> Because I had first said “thirsty.” Listen to the way I said “thirsty.” [The tape is replayed.]
<i>E:</i> Thirsty!	<i>H:</i> Not a question, you mean. You mean it doesn’t have a question inflection?
	<i>E:</i> It’s also a command. “Thirsty.”

<b>Induction</b>	<b>Comment</b>
	<i>H:</i> Well, did that command put her back in trance?
	<i>E:</i> What is she going to be in, “thirsty” “Thirsty!” Is it a question, is it a command, just what is it? When the later statement is made, “thirsty” becomes a command.
	<i>H:</i> What I am trying to get clear is whether you awakened her when you said “wake up.”
	<i>E:</i> Yes.
	<i>H:</i> And then “thirsty” put her back in trance?
	<i>E:</i> The “thirsty” arrested her behavior. Just what did I mean? Was it an inquiry; was it a command? Just what was it?
	<i>H:</i> And then “be horrible” did what?
	<i>E:</i> It was a command.
	<i>W:</i> This might be a place where we could raise the general question: In an induction like this how much do you simply do these things and how much do you do A, B, C, D, E, F, G? As we speak over the moves now, we can in a sense pick out and identify so many things as such. Are we identifying more than went through your mind when you were doing it? I mean, did you do it as consciously as you describe it to us now?
	<i>E:</i> Well, you see, I noticed that licking of her lips, the directing of her glance, her general body movements. I couldn’t know whether I wanted her to drink, whether I wanted to suggest that she drink, or what I would do. So I threw in that word, where neither she nor I really knew the interpretation. And having thrown it in, then I had enough time to say, “I will now use that word,” but it was a nondescript usage, it wasn’t a question.
	<i>W:</i> It was a nondescript but specific response to what she had just done.
	<i>E:</i> Yes, but it was a nondescript utterance

## **Induction**

## **Comment**

of the word. Neither a question nor a command, really an observation of a state of some kind, which gave me time to decide how to use it.

*H:* Now when you said “be horrible if you couldn’t pick up that glass,” did she then go into trance? And she had been awake a moment before.

*E:* Yes.

*W:* I wonder if there was a partial thing there. I had the feeling watching it that it was as if she didn’t dare test that one out to the limit. Now when I hear the “be horrible”, it’s almost as if “well, it’s bad if I don’t get it, but if I tried real hard to get it, and couldn’t get it, then that would really be horrible.”

*E:* That might be.

*H:* Now this is another example. In the inductions I’ve watched you do, in each one there is a kind of a challenge to the subject to try something which they find they can’t do. Do you try to set this up for each induction?

*E:* Yes. And repeatedly throughout the evening I use that.

*H:* That’s the only example I can think of.

*E:* We’ll probably run across more.

*S:* [Laughing slightly] I can’t.

*E:* What’s that?

*S:* I can’t.

*E:* You’re getting thirsty.

*S:* I’m always thirsty.

*H:* Was that “I’m always thirsty” an agreement that she was following your suggestion while denying it? It’s an acceptance that she was getting thirsty but also a statement, “I’m always getting thirsty, it isn’t you.”

*E:* You must have been in a trance.

*S:* Not really.

## Induction

E: Not really?

S: No, no. I think you'd better work on your wife or F.

E: Yes.

S: I really do. Because maybe I'll get better from watching them.

E: Can you pick up that glass of water?

S: [Pause.] I don't think so.

E: What?

S: I don't think so.

E: You must have been in a trance. It seems to me as if you're acting as if you had a posthypnotic suggestion. Could be you were in a trance *one* of the times. Especially . . .

S: [Interrupting.] Well, I think I [clears her throat] was deeper in the first time.

## Comment

W: Making it her own, in her own experience.

H: But also partially denying that she was thirsty because you were saying so.

E: It's relating it to herself.

W: Doesn't she compromise again in a way a little bit with your suggestion to deny one, and instead of saying "yes" and "no," she says, "Well, more than."

E: Because I raised the question "are you still in a trance now?" when I raised the question whether she was under the influence of a posthypnotic suggestion.

H: Well, first she said you'd better work with somebody else, and you said "can you reach for the glass of water?" and she couldn't—did she go back into trance at that moment? Or was she continuing?

E: A vacillation up and down, in and out of a trance. Waiting for some kind of a cue from me to jell her state.

H: I've often seen that kind of thing when somebody feels he's awake in a trance, and you ask him if he can reach for a glass of water. Then he finds he can't, and he feels maybe he is in a trance. But I never saw it done when a person is awake. And you brought up the possibility of a posthypnotic

## Induction

E: By the way, when did you get the posthypnotic suggestion about the glass of water?

S: I don't remember any.

E: You don't remember. [Pause.] Did you go in deeper the first time? It seems to me that you told me you weren't in a trance the first time.

S: Well [Pause], not like L. [A good subject she had seen in a trance].

E: Yes?

E: Maybe this last time you weren't in a trance.

S: I'd love to say yes.

E: You really would? And you'd really love a drink of water, wouldn't you? It is nice to pick it up, isn't it?

## Comment

suggestion, was that to put a doubt in her mind about the trance? Whether she had received one she didn't know about?

E: To make her awfully uncertain as to her state of awareness. And if she's uncertain about her state of awareness, then she can rely upon me to clarify it.

W: It seems to me if she's uncertain, she's got to rely on you to clarify it.

E: Yes, she's got to rely on me. Therefore she's got to do my suggestions.

E: Another item there that you will overlook is the fact in inducing a trance, you say "I want you to go deeper asleep, still deeper," a pause, "still deeper," a pause, and later in casual conversation I can ask you, "Is your dress light [Pause] colored? The pause itself can become a cue.

W: Could you use uncertainty in the tone of your voice if you wished to?

E: Oh, yes. And you can often use anxiety in your tone of voice to achieve certain results.

H: In our terms, the pause becomes a message then.

E: A message interpreted in terms of the effect of previous pauses. The not saying of something that had conditioned her previously.

H: Why did you point out to her that she had said before that she hadn't been asleep the first time?

E: Forcing her to recognize that I can direct her attention. To have her agree to it, then to agree to do it. I have no hesitation at all

<b>Induction</b>	<b>Comment</b>
	<p>in doing that.</p> <p><i>H:</i> No hesitation about pointing out contradictions in what she says?</p>
	<p><i>E:</i> That's right.</p> <p><i>H:</i> Whereas she has hesitations about pointing out contradictions in what you say.</p>
	<p><i>E:</i> I'm the secure one; she had better follow along.</p> <p><i>W:</i> And this could also mean not only by your pointing out contradictions but also quite the opposite. I mean, you could be free to leave one without pointing it out and get a similar result out of it. That is, you could say something contradictory yourself and go right ahead with it.</p>
	<p><i>E:</i> I can't think of a particular instance in hypnosis, but some troops in training were caught in a bog and the officer lost his head, and the men were about to panic when one of the recruits said, "This way, boys." And he started off confidently. That was the end of the panic. He was secure. Over and over in battle this sort of thing would happen. Someone suddenly assumed an attitude of security in certain situations.</p>
	<p><i>H:</i> Is that why you once said it would bother the subject who was put into the stage trance if you could arouse anxiety in the hypnotist's voice?</p>
	<p><i>E:</i> Yes.</p> <p><i>H:</i> It's that important, that there be no anxiety in the hypnotist's voice.</p>
	<p><i>E:</i> That's right. In seminarians in practice sessions their anxiety in their own voice is detected by their fellow seminarians acting as subjects. Over and over again they will say I was going into a trance very satisfactorily until you got uncertainty in the tone of your voice.</p>
<p><i>E:</i> It is nice to pick it up, isn't it? [Long pause.] Isn't it? [Pause.] Just watch your</p>	<p><i>W:</i> You've now given her the nice experience.</p>

### Induction

hand. See what it does. There's your hand going to the glass. Watch it. It's moving to the left a little. [Pause.] Is it moving toward the glass?

S: A little bit.

E: Watch it, your hand moving.

E: All that suffering for so small a sip? Don't you think you had better take another sip?

[Long silence, during which E holds out his hand before Sue, and slowly closes his five fingers into a fist; then again, four times in all. Sue watches intently.]

E: And now you're beginning to know that you can sleep like L, aren't you. Beginning to know. [Silence and long pause.] And you can close your eyes and go really deeply asleep, with a deep breath. A deep breath, and go really deep asleep. That's right. Deeply asleep. [Pause.] I'm going to talk to the others, but you just keep right on sleeping. And I want you to be interested in

### Comment

H: Now was that all to wait for your permission to reach for the glass?

E: To initiate the move.

H: Waiting for *you* to initiate the move.

E: And for her . . .

H: Oh, for her to initiate it and you to approve it?

E: Yes.

H: Because once you asked if it was moving toward the glass, then she did this movement and she reached for it.

E: All right, she took a sip because she was thirsty. It was such a small sip. Then I had her take another. I was really generous, wasn't I? For one additional sip of water, I've got a lot of credit for generosity.

H: And how that situation gets set up! Where a small sip of water becomes that loaded as far as your generosity goes.

W: That's because there could be no sip at all. And all this is going on in the first 20 minutes.

H: Yes.

**Induction**

the fact that you can see my hand, too. [To others.] That answers your question about the communication of ideas, doesn't it?

**Comment**

*H:* Did you tell her then that while you turned and talked to the others she could see your hand? Weren't her eyes closed at that moment?

*E:* She could continue to see my hand, whether her eyes were open or closed.

*H:* That was the first move toward a hallucination then.

*E:* [Pause.] And sleeping deeply, Sue. And this time when you awaken, I want you to recall how you went to sleep this last time, and try to explain it to the group. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. And wake up.

*E:* I gave her a posthypnotic suggestion that she was to explain to the group how she went to sleep, what caused her to go to sleep. As surely as she could explain this, she is really ratifying very thoroughly the fact that she was in a trance. She's confirmed it, she's ratifying it, she's making it a matter of public explanation, she's making an utterly definitive statement, explaining to an interested group, a respectful group, and thereby ratifying her own experience.

*H:* When you put the question to her, how did she go in a trance? You started 20, 19 . . . Was that to give her a cue?

*E:* That was a wake-up signal.

*H:* I know, but you put the question and then put in the 20 so fast there, as if they were related.

*E:* That was separating them.

*W:* Isn't it also true that you give a posthypnotic suggestion which you then—both you and the group—help her to carry out, because the suggestion is about something that you're going to be likely

## Induction

## Comment

talking about as soon as you wake her up anyway? It seems to me this is the type of suggestion you could get more or less carried out in a light trance because it doesn't appear so much as a suggestion—that is, it doesn't appear set off from other things, it flows naturally into the discussion that comes up any way.

*E:* Even with a light trance you ask them to explain how light the trance was. But they are ratifying that there was a trance.

*H:* When you pose that posthypnotic suggestion to her, in order to discuss it as soon as she awakens, she has to either go back in a trance or still be in a trance, doesn't she? I mean, you're not really awakening her.

*E:* Not really awakening her fully.

*E:* How did you happen to go to sleep this last time, Sue?

*S:* Watching your hand.

*E:* That whole explanation that she gave is informative. She watched my hand, the movement of it—those were her conscious reactions. She was not aware that she counted 20 unconsciously. There's that sharp differentiation. The counting, which occurred unconsciously, the conscious watching of the hand, the movement. That was her conscious response.

*E:* What did my hand do?

*S:* It went like this [Opening and closing hand.]

*E:* And what did you do?

*S:* Just like this [Closes her eyes].

*E:* And what did it mean to you?

*S:* [Pause] Hands clasped.

*E:* Yes?

*S:* The movement, the flexing of the muscles. Just watched them.

*H:* Do you have any idea why there was such an inhibition on knowing that she counted.

*E:* Because counting belongs to the trance. Just as you give a posthypnotic suggestion,

## **Induction**

## **Comment**

“whenever I put one cigarette package on top of the other, you’ll go into a trance.” And then you say, “Now this is much more than this. “[Putting one package on top of another after shuffling various objects on his desk.] And when you ask for an explanation later of what you did, the subject says, “You picked up your case records and put them in order, you straightened up your schedule book, you moved the calendar, and I watched you.” Here is the thing that they didn’t see completely [putting package on another]. They may say, “You started to reach for your package of cigarettes, and first you did this, and this.” This [the package] is another thing; it belongs to the unconscious.

*W:* Well, is that the fact that the induction process—that is, when you have a general amnesia for the trance, it includes from the point at which induction really began, doesn’t it? It is as if the induction were a part of the trance situation that is forgotten.

*E:* Yes. “I sat down in the chair, you asked me to put my hands in my lap, and now half an hour has passed, “ is a representative example.

*H:* Another thing that puzzles me is that she says this as a posthypnotic suggestion and therefore she can’t have reentered the trance to follow the suggestion. Yet she is giving her conscious description and not the number. So that, even in a trance she doesn’t know why.

*E:* Yes, but you see, I didn’t give her a number.

*H:* You didn’t?

*E:* No, it was her interpretation. I didn’t give her a number. She understood.

*H:* She understood and didn’t know she understood.

*E:* That’s right. But I didn’t give her a

## **Induction**

## **Comment**

number. All she saw me doing was flexing my fingers.

*H:* Well, you didn't ask her what you did that put her in trance, you asked her why she went to sleep.

*E:* Yes.

*H:* And she didn't reply, 'Well, I interpreted that as the number 20.'

*E:* No, because as soon as she interpreted it as 1 to 20□which is an instantaneous realization□it was all completed.

*H:* And that was part of the trance. Did she have amnesia for that whole trance?

*E:* Except that she really didn't know she was in a trance.

*H:* Well, it's a kind of peculiar thing. She didn't know that she was in a trance, she had amnesia for the trance, and yet she was trying to explain what put her in a trance.

*E:* Yes, it was different levels of circumscribed awareness.

*W:* It gets pretty complicated in that one.

*H:* It surely does.

*H:* Why did you do it that way?

*E:* It was in reply to her question, was it not?

*W:* Yes, you didn't say it right away, but only after you asked her again about why she went to sleep.

*S:* [The lights dim briefly.] Did everybody see that?

*E:* Yes, but what were you thinking? Why did you go to sleep?

*S:* [Pause, clearing throat.]

*E:* They have a deep freeze.

*S:* What?

*E:* They have a deep freeze.

*E:* Yes, I started her on a train of thought about why she went to sleep. And then I offered an irrelevant observation about the deep freeze.

*H:* She said "Oh, Bill!" Why did you do that?

*E:* To give you a contrast between the type of talking and tone of speech that she manifested while thinking about why she

## Induction

S: Who does? Oh, Bill [the host].

S: Oh, that's what the light was. I see.

E: [Pause.] What else were you thinking about as you watched my hand?

S: Well, to me something like this [a fist] has always connoted strength. I couldn't tell you right off what was . . .

E: Anything else?

S: The breathing.

E: Yes.

S: The way your body bathed in and out, and I could feel myself breathing as you were.

E: Now suppose you let your unconscious give me an answer. Now why . . .

S: The closing of the eyes.

E: Go to *sleep*. [Pause.]

S: Because you wanted me to.

E: When was she last time you went to sleep?

S: Just now.

E: That's right.

## Comment

went to sleep. And I offered that observation in the same tone of voice that called for ordinary waking behavior, and her voice demonstrated it so beautifully.

H: It surely did.

W: There's one other thing, too. At the same time you then become the person who settled the question about the flicker.

E: Oh, yes.

H: And you also settled the question of what was going to be talked about.

H: Did you notice her husband got up and lit F's cigarette when she said that? You were lighting her cigarette at that moment, and he got up and went clear across the room and lit F's.

E: That's right, I noticed that.

H: Did you time that to her breathing?

E: I don't recall. I may have done so automatically.

H: I wonder if that wasn't a real answer, "because you wanted me to."

E: That's right. Now how did I teach her that I wanted her to? When I count from 1 to 20, that's the demonstration that I want her to go to sleep "because you wanted me to."

## Induction

## Comment

H: And when you moved your hand, what you did was look at her very intently, and then you moved your hand. I mean, your looking at her was also a statement, “I want you to go to sleep,” as well as moving the hand.

E: Looking at her meant, “Your attention, please.” [Demonstrates hand passing in front of his face to arm of chair and then flexing.] “Your attention, please.”

H: Well, the only reason you really wanted her attention was to put her in the trance, wasn’t it?

E: Yes, though I could get her attention by asking a question.

E: What was I saying to you, Sue, when you went to sleep? [Long pause.] You’re not really awake now, are you?

S: I don’t think so.

E: You don’t think so. You really don’t think so, do you? And you really don’t think you’re awake. And if you don’t think you’re awake, you’re beginning to think at the moment you’re asleep. You’re beginning to think and to know that you are asleep? You’ll find that out as your eyes close. They are closing more. [Pause.] And more. [Pause.] And more. That’s it. And sleeping deeply and soundly. Very soundly, very soundly. And you can smoke while you’re asleep, Sue. Do you want to? Then I’ll take your cigarette. [Long pause.] Now, Sue, I’m going to awaken you again. I’ll tell you when to go to sleep, Sue, but you won’t know it. I’ll tell you when to go to sleep, but *you won’t know it*. But you’ll go to sleep.

W: What strikes me here is that this is a remarkably late time now for you to say “you’re beginning to think.” Since you’ve been through two or three maneuvers on this before, the “beginning” sort of stands out to me, and I wonder if that has a special significance.

E: No, it’s just a matter of repetition. A good technique keeps referring back.

E: I can count her to sleep. I can tell her to go to sleep.

E: We may have to play it back to realize what I said to Sue. “I will tell you when to go to sleep, but *you won’t—know it*.”

<b>Induction</b>	<b>Comment</b>
	<i>H:</i> The other kind of “no”—meaning you won’t refuse?
<i>E:</i> No.	
	<i>H:</i> It sounds like that.
	<i>E:</i> “But you won’t—know it.” That’s a double statement. It means you won’t know when I tell you this, you just won’t know it. And also it says “know it” when I tell you to go to sleep.
	<i>W:</i> Separating it on two levels.
	<i>E:</i> Separating it on two levels. “You won’t know it you won’t <i>know it</i> . “ Meaning, you won’t know it when I tell you to go to sleep— <i>know it</i> when I tell you to go to sleep. Play it back. [The tape is replayed.]
	<i>H:</i> It’s very hard for me to tell the difference.
	<i>E:</i> They’re much more acute than you are. [The tape is replayed.]
	<i>E:</i> You won’t— <i>know it</i> .
	<i>H:</i> Well, is it the same on both those repetitions, or different.
	<i>E:</i> Essentially the same.
	<i>H:</i> Oh, I was trying to find the difference.
	<i>E:</i> They’re both the same. There’s a slight downward inflection on “won’t,” “on “know it” a rising inflection, a slight rising inflection on “know.”
	<i>H:</i> Yes, I see it now.
<i>E:</i> [Pause.] And you will want to, won’t you, when I tell you to? Even though you don’t know it. You will go to sleep, will you not? When I tell you to. Even though you don’t know it.	<i>H:</i> Why did you follow that first series of “don’t know it” with “you will,” and then you said, “And you will, won’t you”? Meaning, “You will know it, won’t you?”
<i>E:</i> . . . And you’re beginning to realize you	<i>E:</i> Yes.
	<i>E:</i> From 20 to 17 is 3, and 4 from that is 13, and 3 <i>more</i> is 10.
	<i>H:</i> Is that what you said then? [The tape is replayed.]
	<i>E:</i> I want to put addition in there. Because

### **Induction**

can sleep, like L. And you can. And you're knowing it more and more, are you not? [Pause.] From 20 to 17 is 3—and 4 from that is 13—and 3 more makes 10—you're half awake. And 9, and 8, and 7, 6, and 5, 4, 3, 2, 1. Wake up. Somewhere in the hassle you lost sour cigarette. Would you like it? Mrs. C, this is Dr. and Mrs. Fingle.

S: How do you do. My hand is so cold. This one. It's cold.

E: Would you like your cigarette?

S: Yes.

E: Tell me, Sue, have you been in a trance?

S: I think *so*.

E: You think so.

S: Yes.

E: Are you awake now?

S: I think so. I'm not sure.

E: Well, Mr. Haley and Mr. Weakland are recording everything here. They want a discussion of this later. They'll probably use it in their research project.

S: Fine.

E: Shall we really fascinate 'em?

S: [Low.] Yes.

E: I have eight children.

S: I know. I think it's marvelous.

E: And then there's some who have a dozen. [Pause.] And you know now, don't you?

### **Comment**

after that I'm going to start adding.

W: This is the hand from which you took the cigarette. That she comments on. This is odd. I wonder if there's a connection there.

E: I think it was just a subjective observation.

W: It struck me, because in taking away the cigarette you talked more about "do you want to smoke" and finally she said a little "no," and you took the cigarette. And then you offered back the cigarette, and so I wondered if there was any connection.

E: I didn't follow that out at all.

H: That's what you wanted the adding in there for!

E: That's right. See how far in advance I planned that.

W: Far ahead of me.

E: I didn't know quite how to get that

<b>Induction</b>	<b>Comment</b>
	<p>dozen in. But I was going to use addition. And “3 more is 10. “ I had the concept of addition there, and I waited for an opportunity. I had laid my foundation for adding, first by obvious subtraction, and then by “and 3 more—is 10. “ Is that addition or subtraction? But the question of addition would necessarily arise.</p>
	<p><i>H:</i> Do you think she would have reacted to the addition of 8 plus 12 if you hadn’t put in the addition earlier?</p>
	<p><i>E:</i> Well, when I was subtracting 3 from 20 and making it 17, I knew I was going to need addition. While I was getting 4 from 17, realizing I had to get addition in there somewhere, what could I make as a casual statement so I could add something later to get 20? The first casual statement was the number of children I have. Now how would I verbalize “12”? Should I make it “a dozen”? I thought at the last moment if I used “dozen,” that would be “1, 2. “ She would have to translate “dozen” into 12—8 and 12 makes 20. So I made it the more involved “dozen.”</p>
	<p><i>H:</i> Well, what if you hadn’t this addition in the counting earlier, do you think she would have gone into a trance on the basis of 8 plus a dozen?</p>
	<p><i>E:</i> She might not. I wanted to insure it. I also wanted to show you how to plant suggestions.</p>
	<p><i>H:</i> You showed us all right. Any particular reason for not bringing up the recorder and research earlier?</p>
	<p><i>E:</i> She had been going into a trance, and earlier a mention of her being used for research might frighten her. It would remain an unanswered question. After she had been in a trance several times, then it was safe for me to bring it up because she had already been recorded, she was going to be used for research. If mentioned at</p>

## Induction

E: That's right. Close your eyes and go to sleep and 12 and 8 is 20, isn't it? Isn't that right?

E: 3 and 20 is 17 and 4 from that is 13, and 3 *more* is 10 and you're half asleep. [Long pause.] And after you are awakened, Sue, I want to introduce you to some people. You haven't met them before. And *you really haven't*.

E: . . . And you'll be pleased to meet them. I'll tell you their names now, but you will forget their names until after you awaken. But then you'll remember when I tell you them. Dr. and Mrs. Fingle.

## Comment

first, it would be a threat, but now it's an accomplished fact she's going to be used for research, and it's obviously being continued; therefore it means her performance is valid.

H: You employ odd mixtures of accomplished facts that turn into beneficial situations.

H: So you say "3 more is 10. " You didn't raise a questioning inflection on 10.

W: A little bit, I thought. [The tape is replayed.]

E: Waking her up, the 3 *more* is again literally an addition phenomenon. And yet it's used as subtraction. Waking her up I would say "*half awake*" because I wanted to add the idea of addition—I was going to use it later. I put in *half asleep* instead of *half awake*, and much later I could again use 8 plus 12 is 20.

H: Why did you say "you really haven't"?

E: I wanted an amnesia. Now the effect of that is to transform the memory, the conscious memory of having met them, into a possibly trance hallucinatory experience. And to alter its identity. And thus it could be reduced to a trance experience and an amnesic experience.

H: By saying "you really haven't" the implication could be that what you say relates to a hallucination, you mean?

E: Or the entire process of introduction was a hallucinatory experience belonging to a trance, therefore an amnesic experience.

H: What she did after she awakened was ask about their names a couple of times, wasn't it?

<b>Induction</b>	<b>Comment</b>
	<p><i>E:</i> At least once.</p> <p><i>H:</i> Trying to get it clear. And you said here, “You’ll forget their names until after you awaken, and then you’ll remember them. “ Was she busy making sure she’d remember them?</p>
	<p><i>E:</i> That’s right.</p> <p><i>W:</i> Wait a minute, why do you tell her the names and then tell her to forget them here? Is that to get that back into the trance experience so that she can get rid of it?</p>
	<p><i>E:</i> Yes.</p> <p><i>H:</i> You make this trance experience such an isolated thing.</p>
<p><i>E:</i> Now I’m going to awaken you. 20, 15, 10, 5, 4, 3, 2, 1. Wake. I think you’ve been asleep again.</p>	<p><i>E:</i> It serves to enhance specific phenomena.</p> <p><i>H:</i> You don’t say “20, 15, 10, 5, 1.” Would that be too sharp a jump for awakening?</p>
<p><i>S:</i> Yes.</p>	<p><i>E:</i> Maybe she isn’t awakening that rapidly. I have to give her some time to catch up.</p>
<p><i>E:</i> Here comes that fly again.</p>	<p><i>W:</i> And there you reinforce your previous suggestion by saying “a couple of strangers. “</p>
<p><i>S:</i> Yes.</p>	<p><i>E:</i> Yes, that is, make your waking situation as valid as possible.</p>
<p><i>E:</i> Here comes that fly again.</p>	<p><i>H:</i> They were strangers.</p>
<p><i>S:</i> Oh, the fly.</p>	<p><i>E:</i> If she hadn’t met them before, I’d better agree with my statement—a couple of strangers. I’d better be consistent, too. And therefore I set the example of consistency.</p>
<p><i>E:</i> Oh, Sue, there are a couple of strangers here, Dr. and Mrs. Fingle. <i>F:</i> How do you do?</p>	<p><i>H:</i> And she will use that as a model—if you set an example of consistence.</p>
<p><i>S:</i> How do you do? What’s the name?</p>	<p><i>E:</i> I want to be consistent to give my subjects a feeling of comfort and security. I make my statements valid.</p>
<p><i>E:</i> Fingle.</p>	<p><i>W:</i> Well, when you contradict one, you contradict it very flatly. “You haven’t met them.”</p>

<b>Induction</b>	<b>Comment</b>
S: Fingle.	E: "And you <i>really</i> haven't. " What does "really haven't" mean? A very special significance.
E: Fingle.	H: In what way is it special?
	E: "You haven't <i>really</i> eaten a midnight snack until you have eaten one I prepared. You really haven't. "
	H: There's that playing on the word "really" again.
	E: Yes.
	H: That's the trickiest word in the whole business. It's one of those words that can be literal or metaphorical or halfway in between.
E: Who's asleep around here?	
S: I'm going back.	
E: How many times have you been asleep?	
Say any number of times.	
S: Four.	
E: [Pause.] Not bad.	
S: [Bursting out laughing.] I didn't really mean it. That just came out. [Both laughing.]	
E: You didn't really mean it, but you said it.	
S: I don't know.	
E: Do you want to change it?	
S: Mmm.	
E: Try it. Say a number.	
S: Mmm.	
E: You can't say a number. Can you say the same one?	
S: Four.	
E: Let's give it a count.	
S: How much?	
E: Oh, just any count!	
S: 1, 2—oh no! [Apparently feels herself going in trance.]	

<b>Induction</b>	<b>Comment</b>
<i>E:</i> What's the matter?	<i>H:</i> Why did she stop when you said that? I've forgotten now.
<i>S:</i> Nothing.	
<i>E:</i> Go ahead and count.	<i>E:</i> I asked her to give me any number, to count—"1, 2, oh no!" She suddenly realized that she was counting in the direction of 20.
	<i>W:</i> Yes, she felt herself going to sleep.
	<i>E:</i> Now when you want to prove something to a subject, and really prove it to them, try to let the proof come from within them. And let it come from within them in a most unexpected way.
	<i>W:</i> That makes it different. I tried it once with a very resistant subject. I had him tell his hand to lift. Now that wasn't unexpected, but it would have been proof from within himself.
	<i>E:</i> Yes.
	<i>W:</i> And he was so very reluctant to tell it to lift. He didn't want to find out, so he didn't want to tell his hand.
<i>S:</i> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, [becoming more slow and inaudible. Pause.]	<i>H:</i> When she said "count to how much?" it apparently hadn't crossed her mind then?
	<i>E:</i> No, it hadn't. "Oh, just count." "1, 2, oh no."
<i>E:</i> You really convinced <i>yourself</i> that time, didn't you, Sue? You really did, didn't you? Now you know, do you not? Now you know. And you really know it, do you not?	<i>H:</i> I remember now. She stopped overtly counting at about 17, and you waited until at that rate she would reach 20, and then you took a deep breath, wasn't that it?
	<i>E:</i> Yes.
	<i>E:</i> "And you really know it, do you not?" What has been said that she really knows? At that particular time no specific thing had really been said. But I told her she knows. And it covers everything I have said. It's

## Induction

*E:* And now, Sue, I want you to have the feeling, the very, very strong feeling after you awaken that you've been asleep for a long, long time. At least two hours. I want you to have the feeling that you have been sleeping for two *long* hours. Very restful, very comfortable, and you won't believe your watch. And you won't believe it, will you? [Pause.] Because after you awaken . .

## Comment

all inclusive. And she knows. And in trying to search for some specific thing she has to look over the entire situation.

*W:* I notice you draw out all the words.

*E:* "And you won't believe your watch." "And you won't believe it, will you?" The suggestion [firmly] "And you won't believe your watch." [softly] "And you won't believe it, will you?" That's the suggestion—"And you won't believe it, will you?" Literally hauling her over to join me.

*H:* Yes, and the second one becomes a comment on the suggestion.

*E:* A comment. A shared comment.

*W:* I'm not quite sure I got that. "You won't believe your watch." Then what does the next one do?

*E:* "You won't believe your watch—and you won't, will you?" You see, it's a comment, and you're joining me on the comment as you listen to it. And when you comment on the suggestion, that suggestion is real; otherwise you can't offer a comment.

*W:* That's a thing we'd better think about, the matter of comment. And if there's no comment, maybe it isn't real.

*H:* This is again, as far as we're concerned, meta-communication, which is communication about communication.

*E:* Validate the suggestion by commenting

## **Induction**

*E:* . . . you will know from your inner feeling that you have slept for two long hours. And you'll feel rested, refreshed. And now take it easy, and just two hours have passed . . .

## **Comment**

on it. "And you won't, will you?" "And you won't believe your watch. And you won't, will you?"

*H:* Was the phrasing, "and you won't, will you?" the same as "you can, can't you," so if it comes to her mind, "I will," you had already said it?

*E:* Yes.

*H:* The same thing again. That's a nice one.

*W:* You mentioned that she'll know from her inner feelings that she'll be rested and refreshed, because she's had that two long hours of sleep. This, then, builds up the disbelief in the watch because what is so sure as one's own real feelings?

*E:* One's own real feelings.

*H:* Not only disbelief in the watch, but she would disbelieve in every watch in the room then.

*E:* She had her feelings.

*W:* She had her feelings, and you had one feeling validated anyway. She felt it was two long hours and she felt refreshed as one would if he slept two long ours. Each one supports the other.

*E:* . . . and you're really feeling rested and refreshed. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Wake up, wide awake.

*H:* Was there any deliberate hesitation in that count?

*E:* You can never be consistent. You can never really count backward from 20 to 1 or forward from 1 to 20 always in the same way. You ought always to use hesitation and emphasis. On that particular occasion I just threw in some, not for any particular

<b>Induction</b>	<b>Comment</b>
	<p>purpose except to demonstrate that I can use variations whenever I only one eye. The vagueness of me, the absence of everybody else.</p>
	<p><i>W:</i> I wonder if that has any relation to the importance of one in another sense. If she counted “one,” that’s all right, but is she had counted “two” —would she go into a trance?</p>
	<p><i>E:</i> No, because you get that one eye response in other situations.</p>
<i>E:</i> What else happened?	
<i>S:</i> Nothing.	
<i>E:</i> [Pause.] What happened the first time you counted, or started to count?	
<i>S:</i> Were there two counts? I only remember one.	
<i>E:</i> Didn’t you start to count and then refuse to count?	
<i>S:</i> Yes.	
<i>E:</i> What’s the explanation of that?	
<i>S:</i> I was afraid.	
<i>E:</i> What were you afraid of?	
<i>S:</i> A very funny feeling.	
<i>E:</i> How did that feeling come to you?	
<i>S:</i> I don’t know.	
<i>E:</i> What was the feeling really like?	
<i>S:</i> Sinking.	
<i>E:</i> Describe it more.	
<i>S:</i> Oblivion.	
<i>E:</i> Anything else.	
<i>S:</i> It was very comfortable.	<p><i>H:</i> That’s a kind of contradictory kind of description, isn’t it? Sinking, oblivion, fear, but very comfortable.</p>
	<p><i>E:</i> Now, did you notice her use of words?</p>
	<p><i>H:</i> I thought I did. What about it?</p>
	<p><i>E:</i> How can one describe partial conscious</p>

<b>Induction</b>	<b>Comment</b>
	awareness of trance development? I wonder what the word “oblivion” meant to her.
	<i>H:</i> Well, she didn’t misuse the word “fear.”
	<i>E:</i> It’s out of context: “comfortable—fear,” “comfortable”—utterly contradictory.
	<i>W:</i> That’s why Jay is raising the question.
	<i>H:</i> Fear, sinking, oblivion, but very comfortable. You don’t think she could be afraid of the trance and feel it was comfortable at the same time?
	<i>E:</i> Yes, she could But that’s something I don’t understand about oblivion and fear, and comfortable.
	<i>H:</i> And sinking.
	<i>E:</i> And sinking. Was she sinking into a nice, soft mattress? One of my patients always described it as sinking into a nice, soft, pleasing cloud that floats so gently. A lot of them do, sinking in a very pleasant way.
	<i>H:</i> If it was so pleasing, she wouldn’t have stopped at the count of two in that way, would she? She stopped, startled, afraid.
	<i>E:</i> Startled? Afraid? “Oh, no!” [Said softly.]
	<i>H:</i> You thought it was a pleased “Oh, no!”?
	<i>E:</i> An attitude of complete astonishment.
	<i>H:</i> You mean a realization attitude more than a fear attitude?
	<i>E:</i> Yes. Utter astonishment.
	<i>H:</i> I just wondered if she started to say how she felt about the trance, that she was afraid of it and was sinking into oblivion, and thought this might antagonize you, and so she said “but it was comfortable.”
	<i>E:</i> I don’t think so. I just wondered about her use of words.
<i>E:</i> Did T want to serve coffee now?	
<i>S:</i> I guess it is about time. How was the	

<b>Induction</b>	<b>Comment</b>
movie?	
P Watching television.	
S: That late?	
E: Look at your watch.	
S: It's amazing! [Laughter.] The thing's stopped!	
E: Do you believe your watch?	
S: Well, it stopped three times today. [Laughter.] No, it's going. Unless it stopped during the time. What does your watch say?	
<i>SOMEONE:</i> 8:30.	
S: Does anybody else have a watch?	
<i>ANOTHER PERSON:</i> 8.30.	
S: 8:30?	
E: Can't believe these watches.	
S: Not very much. [Laughter.]	
E: What time do you think it is?	
S: Oh, about 9:30, 10 o'clock.	
E: And what all has happened this evening?	
S: Maybe you were talking to somebody else! [Laughing.] I don't want to miss it, though.	
E: [Laughs.]	
S: Don't do that to me!	
E: You know, I have an idea you'd be a good subject!	
S: Nothing I want more in this world . . .	
	W: There you say "I have an idea you'd be a good subject." This, now that she has done it—now your emphasis is on how about really doing something more.
	E: Yes.
	W: Whereas before, when you were getting her started, you were making the most of everything she did.
	E: Yes, but it's a little bit more than that. You are having a perfectly wonderful time. Then you say, "I have an idea that we could

## Induction

S: I want to see the fawn that L saw.

E: You would? That one or another one?  
Tell me, in Maine, haven't you seen a  
fawn?

S: Every time I get near one—I never—I  
just see tracks.

E: Haven't you ever seen a deer?

S: I don't think so. I hunt 'em, but I can't  
ever find them.

E: But in Maine haven't you ever seen a  
deer or a fawn?

S: Not right up close.

E: In the distance.

S: Not that I can recall. That's right. I think  
I may have seen one once.

E: Was it in Maine?

S: I think I was passing by in a car, but I  
don't remember.

E: On the right, or maybe left-hand side?

S: No, it was going across the road.

E: Going across the road. Was it a wide  
road?

S: No, a dirt road.

E: A dirt road?

S: Mmhmm.

E: Was it dry, a dry dirt road? Were there  
stones in it?

S: Yes, I think . . .

E: Yes, there were stones in it. Were there  
trees along the sides?

S: Yes.

E: Yes. And look at it closely. And see it.  
And it's nice to see it, isn't it? Look closer.

## Comment

have more fun." This confirms the  
goodness up to the moment and offers still  
further promise.

E: "That's one—or another one." She's  
going to have doubts; let's spread them, the  
doubts, I mean.

W: Oh, the doubts now are not on will you  
see it, but on what one will you see.

E: Yes, she's got to have doubts. "That  
one—or another one." So I've split the  
doubt.

<b>Induction</b>	<b>Comment</b>
[Pause.] Look closely, quietly. Look. Look closer, quietly, before it goes away. See it clearly. [Pause.] Is it gone?	
S: I couldn't see it.	
E: You couldn't see it; look carefully. It's by that tree.	
S: It passed too quickly; just didn't see it.	
	H: Did she say "It passed too quickly"? Did she mean the deer, or did she mean she was in the car?
	E: I think the deer.
	H: That's what I wasn't sure of last night. I couldn't tell whether she was going past too fast in the car or not.
	E: Now she had been in the waking state, and getting her to say "Maine," then again to say "Maine," and then my alteration in pronunciation of "Maine," and the very careful softening of my voice, and then to seize upon every clue.
	H: What was the alteration in the word 'Maine'?
	E: Was it in Maine?" I softened my voice very greatly.
	H: To start stalking the deer?
	E: Yes. And " <i>that tree</i> "? A very specific tree, you know.
	W: I noticed the whole series there, how with every utterance you duplicate an utterance and then—
	E: Add another statement.
	W: I understand.
	E: And I led her from the waking state into a hallucinatory trance state.
	H: And rapidly too!
E: Look again, beyond that other tree. Coming out. It's going quite fast. Look. Did you see the movement there?	
S: Yes, but I missed the deer.	
E: You missed the deer. See the movement,	

### **Induction**

the swinging of the branch?

*S:* It starts.

*E:* You'll see it the next time, won't you?  
The next trance you get, you'll see it.  
[Pause.] Close your eyes and sleep deeply.  
Now take a deep breath. Sleep deeply. And  
wake up and tell me again about wanting to  
see the fawn that L did. Start the  
conversation on that . . . Wake up . . . Wake  
up. From 20 to 1, wake up. [Louder.] So  
you want to see the fawn that L did?

*S:* [Waking voice.] She saw it so clearly.

*E:* What are some of the other things that  
you'd like to see?

*S:* [Pause.] Nothing.

*E:* Nothing at all?

*E:* But you really couldn't see that fawn  
that L saw. That was on the Au Sable  
River.

*S:* I never even heard of it before.

*E:* Where else besides Maine have you  
been?

*S:* New York, California. I was in Florida a

### **Comment**

*E:* Future trances. She'll see the deer. [It  
was later learned that she had never really  
seen a deer in Maine.]

*H:* Why do you suppose she didn't this  
time? Is it tied up with L and the fawn?

*E:* L seeing the fawn, her wishful  
thinking—she never had, she wished she  
could, she always got there too late, she  
hunted and she only found the tracks. And  
every time you miss seeing the fawn—next  
time you will see it. So I'm laying the  
foundation for a future trance. It moved too  
quickly, so I told her of the swinging of the  
branch. That was put in to validate that  
movement.

*H:* As I remember, you leaned back into  
the same position you were in just prior to  
her trance, didn't you?

*E:* Yes, I usually tend to do that. [That is,  
to use positions, movements, and remarks  
to establish and reestablish situations, both  
trance and nontrance.]

<b>Induction</b>	<b>Comment</b>
little while.	
E: You say you go hunting.	
S: Yes.	
E: Where have you been hunting?	
S: Out here.	
E: Kaibab Forest?	
S: No, we don't go for deer, just dove and quail. Lots of fun.	
E: I like to eat them.	E: To emphasize the ordinary, casual situation, "I like to eat them." A highly personal statement, unrelated to the total situation. "I have to clean them." A highly personal thing, unrelated to that total situation. So she's really wide awake. My introduction of "I like to eat them" cleared the way for a completely full awakening.
S: I have to clean them, if I kill them. You like to clean them?	
E: I do.	
S: And oh, there he goes [the fly], on your nose. [S and E join in hunting the fly, but miss.]	
S: That's so—a hunt.	
E: You know, I prefer to get them seven at a blow.	
S: <i>Sept d'un coup?</i>	
E: You want to go deer hunting?	
S: I don't think so. I don't think I could kill one.	E: I missed an opportunity there. "I don't think I could kill one." I missed a cue there as far as the trance was concerned. "You'd rather see one" should have been my response. I missed it and felt badly afterward.
E: Haven't you ever seen any—deer, when you—	
E: There [referring to fly.]	
S: Please, please [pursuing with fly swatter]. Here he is. This is really a big home. In my home you can corner them.	
E: When was the last time you were in	

**Induction****Comment**

Maine?

*S:* Last summer. If it's on me, don't worry, you can hit me. He's young. Got a lot of energy. There he is! Now he's back behind you.

*E:* Doggone that fly. [Pause.] When was the last time you were in Maine?

*S:* Last summer, June 19th.

*E:* Did you ever go up in the woods at all?

*S:* No, I was with the children, right in camp.

*E:* And that's where you learned your driving, is it?

*S:* Yes.

*E:* How old were you when you learned to drive?

*S:* Oh, 15 or 16.

*E:* And you had so little mercy on the boys there that you tried to run 'em down?

*S:* Oh, that was just teasing. I was always teased at camp because I was the only girl in a boys' camp.

*E:* So you learned to drive a car at 16.

*S:* Yes, I learned a lot of things in Maine.

*E:* And everybody rushed for the canoes?

*S:* They didn't, really. They only . . .

*E:* They stood up.

*S:* Yeah, that's what the K's were telling them all.

*E:* How many boys were there at the camp?

*S:* Then, oh, I think—about 40, 45, maybe. Now it's much bigger.

*E:* I see.

*E:* Did you realize that I was building up there in asking her about how old she was when she learned to drive a car. I was building up very carefully for a hallucination, a recovered memory of along time ago. It seems to have been done very slowly, casually, and yet essentially it was done very rapidly.

### Induction

S: Now they've got 120.

E: A hundred and—twenty.

S: Mmm.

E: [Pause.] A hundred and twenty. Take a deep breath. Because I want you to do something. And you can remember that camp. You saw that camp many times. And, as you think back, you can remember this boy and that boy—when you were 16. And you can look at your memory of that camp. And as you think back, you can recall this boy, and that boy, when you were 16. And you can look at your memory of that camp.

E: And I want you to see if there was grass around there. Was there a beach? Was the water smooth? Were there really trees there? Were they green? And look, and look up there and see a canoe, or see a boy, or see the beach, or see the water. You're beginning to see, and I want you to recognize one of the boys who was there

### Comment

H: She had to say 20, didn't she? She said "120 boys in camp" and you said a hundred and—twenty."

E: And as you think back, you can recall this boy and *that* boy.

H: Oh, by your movements you were setting them up?

E: Setting them up. *This* boy. *That* boy. Rolling back a bit. [Shifting position in chair.]

E: "And you can look at your memory of that camp." "You can" implies "you can now look back." And there I'm looking. It implies now.

H: Did you select boys to look at on the basis of her phrase, "I learned a lot of things in Maine"

E: No, her statement was that she had been in that camp. The counselor always told the boys "take to the cliffs, she's going to drive." So there you've got an emotional memory. I believe her family owned the camp.

H: Well, you have, particularly when you said "you learned to drive there," and she said, "Yes, I learned a lot of things in Maine," implying something else that she learned there. I just wondered if that was in the background of this a bit.

### **Induction**

when you were 16. And you can do that. See him plainly, clearly, and I want you to point to him. Point to him, and slowly your hand moves. It's going to point to him. And look—and see. Take your left hand and point. And point to him. That's it. That's it.

Move your hand and point to him. Move your hand and point to him, and see him more and more plainly, and you can point. Are you pointing? Nod your head when you can see it shaping. Are you pointing? Are you pointing? [Pause.] Sleep deeply. [Long pause.]

E: And after you awake you will recall one of the boys you haven't thought of [pause] for a long time. You will tell me about him, will you not?

### **Comment**

H: Notice my suggestion to point, "take your left hand and point," because I knew I was getting into deep water there, that is, severe difficulties.

H: Why deep water?

E: Very deep water, because she wasn't making adequate response to me. So then I narrowed it down, "take your left hand and point." I knew I was getting in deep water there. I didn't know exactly what it was. I asked her to point. Her hand didn't point, so then I started narrowing down. Have her point with her left hand. When she failed to do that, I knew how deep in the water I was. Go ahead.

E: The deep water I was in was that I was out of contact with her. She was back there [regressed spontaneously].

E: I made awfully sure of it, then I verified it by trying to get her to move her left hand to point, then I verified it by trying to get her to nod her head. I got no response at all.

H: I remember wondering why you couldn't get any response from her on that.

E: Because I wasn't there. She was there [in Maine, in regression]. Out of touch with me. She had drifted into that at the sound of my voice. I kept on. And you noticed that my voice went down and down and down [in volume]. So that I could lead into a silence. Go ahead.

E: Now how did that begin? [Referring to tape recorder.]

<b>Induction</b>	<b>Comment</b>
	<i>W:</i> “And after you are awake, you will recall.”
	<i>E:</i> A long pause. Soften the voice, a long pause, and the introduction of my voice saying something I had said before, “after you are awake. “ I gave her a long enough time to look at that boy. Then I used the words “you will recall the boy you haven’t thought of for a long time,” and if she hasn’t thought of the boy for a long time, she can’t possibly be back there in Maine.
	<i>H:</i> That was your way of bringing her out of it?
	<i>E:</i> Yes.
	<i>H:</i> Why didn’t you want to regress her and have her there, and use that? I mean, make contact with her there?
	<i>E:</i> You have to lay the foundation; I hadn’t laid the foundation. Because I didn’t want to lose her, and I had lost her there for a little while. Then I had to resort to silence, then begin with a suggestion I’d given before, and match it with “not for a long time.”
	<i>H:</i> Suppose you had said, “Who am I?” or brought yourself into it somehow back there, even without the foundation, what would happen?
	<i>E:</i> I’d probably have been a counselor.
	<i>H:</i> Well, what foundation should have been there that was absent, so you didn’t want to do this sort of thing?
	<i>E:</i> My voice is my voice; it’s really not me. My voice can be heard with a phone. It can be heard on a tape recording. My voice can be heard in places where I’m not. And you could hear my voice in Florida, New York, California, Kaibab Forest, if you were ever there.
	<i>H:</i> If you had done that earlier, you could have maintained contact while she was back there?

**Induction****Comment**

*E:* Yes, but I would have been a voice, and my voice could have been transformed into a counselor's, into her father's or mother's, and very often I've been identified as father, mother, uncle, aunt, cousin, the neighbor, teacher.

*H:* That's partly, too, why she referred later to how she was alone in Maine?

*E:* Yes, I wasn't there. Now if I'd laid my foundation, I could have been the voice of someone there talking to her. And that's difficult work because you have to use such very general questions that can be interpreted in terms of the people in that situation. I've had subjects comment on the screechiness of my voice, "My teacher talked to me and that screechy voice of hers is still ringing in my ears," and then repeat the things I had said. Too many operators, when they lose contact, fail to go right on as if they hadn't lost contact, lower their voices, and make use of silent techniques. Then slowly come out of it by utilizing previous utterances. And then throw in something that nullifies the regressed state.

*W:* By lowering your voice down to the pause, then in effect you join the loss of contact, too, and take that over.

*E:* Yes, because I've been training her all evening to accept and respond to my silences. I'd be curious to find out how long that visit she made was. It might have been an hour or two.

*E:* [Long pause.] Sleep deeply, and now awaken. 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Wake up. And I still haven't got that fly.

*S:* Oh!

*E:* I hope you have better luck with your doves than you are having with this fly.

*S:* I hope so, too.

*H:* Is that amnesia again?

*E:* Yes.

<b>Induction</b>	<b>Comment</b>
	<i>W:</i> Which you provoked with the reference to the fly. Your reference to the fly there is similar to her reference to the cigarette before.
	<i>E:</i> Yes.
	<i>H:</i> Do you usually calculatedly remember what was going on just before you started the induction, so you can set that up again afterwards?
	<i>E:</i> I try to. And it really promotes amnesia.

External circumstances caused an interruption of the commentary at this point, but further analysis would have served only to emphasize, with variations and modifications occasioned by the immediate intrinsic circumstances, the understandings already elaborated. It may be added that henceforth Sue was a competent subject, capable of all phenomena of the light and deep trance, including even the plenary state.

To summarize, a tape recording was made of a spontaneous and unplanned hypnotic induction of a somewhat resistant subject who had failed on three previous occasions to develop a trance and who believed that she could not be hypnotized. The next day this recording was played back by the authors, with many systematic interruptions to permit a point-by-point discussion and explanation of the significances, purposes, and interrelationships of the various suggestions and maneuvers employed in developing the subject's hypnotic responses. A transcription of a second recording, made of the entire procedure, constitutes this paper.

# **The Confusion Technique in Hypnosis**

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## **GENERAL CONSIDERATIONS AND RATIONALE OF DEVELOPMENT**

The request has been made many times that I record in the literature an account of the Confusion Technique that I have developed and used over the years, including a description, definition, illustrative examples, and various observations, uses, and findings from it.

It is primarily a verbal technique, although pantomime can be used for confusional purposes as well as for communication, as I shall describe in another article. As a verbal technique, the Confusion Technique is based upon plays on words, an involved example of which can be readily understood by the reader but not by the listener, such as "Write right right, not wright or write." Spoken to attentive listeners with complete earnestness, a burden of constructing a meaning is placed upon them, and before they can reject it, another statement can be made to hold their attention. This play on words can be illustrated in another fashion by the statement that a man lost his left hand in an accident and thus his *right* (hand) is his *left*. Thus two words with opposite meanings are used correctly to describe a single object, in this instance the remaining hand. Then, too, use is made of tenses to keep the subject in a state of constant endeavor to sort out the intended meaning. For example one may declare so easily that the present and the past can be so readily summarized by the simple statement, "That which now is will soon be was yesterday's *future* even as it *will* be tomorrow's *was*." Thus are the past, the present, and the future all used in reference to the reality of "today."

The next item in the Confusion Technique is the employment of irrelevancies and non sequiturs, *each of which taken out of context* appears to be a sound and sensible communication. Taken in context they are confusing, distracting, and inhibiting and lead progressively to the subjects' earnest desire for and an actual need to receive some communication which, in their increasing state of frustration, they can readily comprehend and to which they can easily make a response. It is in many ways an adaptation of common everyday behavior, particularly seen in the field of humor, a form of humor this author has enjoyed since childhood.

A primary consideration in the use of a Confusion Technique is the consistent maintenance of a general casual but definitely interested attitude and speaking in a gravely earnest, intent manner expressive of a certain, utterly complete expectation of their understanding of what is being said or done together with an extremely careful

shifting of the tenses employed. Also of great importance is a ready flow of language, rapid for the fast thinker, slower for the slowerminded, but always being careful to give a little time for a response but never quite sufficient. Thus the subjects are led almost to begin a response, are frustrated in this by then being presented with the next idea, and the whole process is repeated with a continued development of a state of inhibition, leading to confusion and a growing need to receive a clear-cut, comprehensible communication to which they can make a ready and full response.

The incident, one of spontaneous humor on my part, that led to its adaptation as a possible hypnotic technique was as follows. One windy day as I was on my way to attend that first formal seminar on hypnosis conducted in the United States by Clark L. Hull at the University of Wisconsin in 1923, where I reported on my experimental work and graduate psychology students discussed my findings, a man came rushing around the corner of a building and bumped hard against me as I stood bracing myself against the wind. Before he could recover his poise to speak to me, I glanced elaborately at my watch and courteously, as if he had inquired the time of day, I stated "It's exactly 10 minutes of two," although it was actually closer to 4:00 p.m., and I walked on. About a half a block away I turned and saw him still looking at me, undoubtedly still puzzled and bewildered by my remark.

I continued on my way to the laboratory and began to puzzle over the total situation and to recall various other times I had made similar remarks to my classmates, laboratory mates, friends, and acquaintances and the resulting confusion, bewilderment, and feeling of mental eagerness on their part for some comprehensible understanding. Particularly did I recall the occasion on which my physics laboratory mate had told his friends that he intended to do the second (and interesting) part of a coming experiment and that he was going to make me do the first (and onerous) part of that experiment. I learned of this, and when we collected our experimental material and apparatus and were dividing it up into two separate piles, I told him at the crucial moment quietly but with great intensity, "*That sparrow really flew to the right, then suddenly flew left, and then up, and I just don't know what happened after that.*" While he stared blankly at me, I took the equipment for the second part of the experiment and set busily to work, and he, still bewildered, merely followed my example by setting to work with the equipment for the first part of the experiment. Not until the experiment was nearly completed did he break the customary silence that characterized our working together. He asked, "How come I'm doing this part? I wanted to do that part." To this I replied simply, "It just seemed to work out naturally this way."

As I reviewed and studied these occurrences and numerous others of a comparable character, they all appeared to have in common a certain number of psychological elements.

1. There was an interpersonal relationship of a sort that required some kind of joint participation and experience.

2 . There was the sudden and inexplicable introduction of an irrelevant idea, comprehensible in its own context, but which was completely unrelated and irrelevant to the immediate situation.

3. Thus the person was confronted by (1) a comprehensible situation for which a pattern of response would be easily forthcoming, and (2) an utterly irrelevant, but comprehensible in itself alone, non sequitur, thereby leaving the person without any means of response until sufficient time had passed to permit adequate mental reorganization to dismiss the non sequitur from the pertinent situation. Thus in the first instance the inadvertent collision called for conventionalized social responses between two people, but instead a non sequitur, uncalled for and presented as an earnest factual communication despite the contradiction of it by reality, left the man inhibited in making any expectable conventional response, and the non sequitur, in itself comprehensible, called for no response since it had not been asked for, thereby leaving the man in a state of bewilderment until he could reorganize his mental activity to exclude the non sequitur and go about his business.

In the second example George and I completed the task of dividing the material and apparatus, and at the moment when he knew what he was going to do but did not know what I was really going to do, I impressively presented him with an irrelevant communication comprehensible in itself but offering no opportunity for a response on his part. Then as a mere matter of course I took that part of the material and apparatus chosen by me and he, inhibited by the unanswerable irrelevancy, automatically and passively followed my example by taking the remaining material, and we simply set to work in our customary silent manner. By the time he had dismissed the irrelevancy from his mind, it was much too late for him to say, "You do that and I will do this."

4. Thus there is a structuring of a situation so that definite and appropriate responses are called for but, before they can be made, an irrelevancy or non sequitur, which in itself alone is a meaningful communication, is introduced into the situation, thereby inhibiting the other person from making his natural response to the original situation. This results in a state of bewilderment and confusion and progressively leads to a profound need to do something, just anything, uncritically and indiscriminately. In the first instance the man merely stared helplessly after me; in the second instance George passively followed my example, and automatically and indiscriminately did the task he did not want to do, but a task which *was proper and fitting in the total laboratory setting*, although previously rejected by him apparently without my knowledge.

In actuality, there was no essential difference in the psychology of the performance of the two men. Both had been profoundly inhibited in making their natural responses. Both were bewildered and confused and had a profound need to do something, anything, but, in a non-critical, indiscriminating way. The first man stood passively, helplessly, in the strong wind, looking after me until time itself or some other stimulus "shook" him out of his state of confusion. On the other hand George, inhibited in his natural responses, merely passively, automatically, and uncritically followed the example I carefully set for him.

5. In summary, if into any simple little situation evocative of simple natural responses there is introduced just previous to the moment of response a casual simple irrelevancy or non sequitur, confusion results, and there is an inhibition of natural responses. The non sequitur is completely meaningful in itself but has no bearing *except as an interruption* upon the original situation calling for a response. The need experienced to respond to the original situation and the immediate inhibition of that response by a seemingly meaningful communication results in an increased need to do something. Quite possibly this increased need is a summation of the need to respond to the original stimulus and the need to understand the inexplicable, seemingly meaningful addition. As this procedure is continued for hypnotic purposes, there often arises an intolerable state of bewilderment and confusion and a compelling, growing need for the subject of this procedure to make some kind of a response to relieve his increasing tension, and he readily seizes upon the first clear-cut, easily comprehended communication offered to him. In the meantime he has been presented with a wealth of seemingly related ideas, all of which have an underlying implication of primary but unrecognized significance leading to the development of hypnosis or of hypnotic phenomena.

This thinking led to extensive experimentation by deliberately making out-of-character, irrelevant, non sequitur remarks in groups and to single persons. The latter proved to be the better procedure, since the variations in individual behavior in group situations tended seriously to interfere but did not render the task impossible.

As originally worked out, the Confusion Technique was based upon the following items of procedure and employed primarily for the purposes of age regression before it was recognized as readily applicable to *other hypnotic phenomena*.

The original procedure consisted of the following items:

1. Mention of some commonplace item of everyday living such as eating.
2. Relating that item as an actual fact or possibility for the subject for the current day or *present*.
3. Mention its absolute probability in the *future*, specifying some one particular day of the week, preferably the current day.
4. Comment on its probable occurrence (the eating) on that same day in the *past* week.
5. Comment on the identity of the day preceding the named day of the past week, emphasizing that such a day is a part of the *present* week even as it will occur in the *future* week.

6. Add that today's day had occurred *last week*, even *last month*, and that learning the names of the days of the week had constituted a *childhood problem*. (Thus the period of regression desired is subtly introduced.)
7. Mention that just as in the past a certain month would follow the *present month* even as the *present month* had been preceded by the *previous month* during which a meal had been eaten on some named weekday. And that weekday had been preceded by another weekday, just as the previous week had a day of an earlier ordinal position. (For sake of clarity to the reader, let us assume that the current day is the second Friday of June, 1963, that next Friday eating will occur even as it did *this Friday*, and as it undoubtedly did *last Friday* which was preceded by a Thursday, just as it was earlier in the *present month* and would be in the *future weeks*. Days, weeks, months, past, present, and future are all intermingled.)

Then one proceeds with mention that last month (May) had a Thursday—in fact, several Thursday—each preceded by a Wednesday while the month of April preceded May, another *childhood task* of learning the months of the year. (Thus from Friday June 14, 1963, by a simple valid statement, an underlying implication of time is employed to arouse thoughts of *childhood*, or any chosen past time, without seemingly direct suggestion to that effect.)

8. This intermittent and varied reference to the present, future, and past is continued with increasing emphasis upon the past with an implication of the actual past as belonging to the present and then to the future. Again to clarify for the reader one might say;

"Not only did you (Reader, please bear in mind that it is the second Friday of June 1963) eat breakfast on Wednesday of last week, but before that you ate dinner on Tuesday in May, and *June was then in the future*, but before May was April and before that was March and *in February you probably had the same thing for lunch*, and you didn't even think of having it next April, but of course on January 1st, New Years Day, *you never even thought of the 14th of June 1963* (an implication of possible amnesia developing), it was so far in the future, but you certainly could think of Christmas, December 1962, and wasn't that a nice present you got—one that you didn't even dream of on Thanksgiving Day in November and what a Thanksgiving dinner, *so good* (a present tense description of a series of ideas with an emotionally charged validation of the actual past as the present and then the future), but Labor Day came in September of '62, but before that was July 4, but on January 1st of 1962 you really *couldn't think of July 4th* because it was (this use of "was" implies a present tense) just the beginning of 1962. And then of course there was your birthday in 1961, and maybe on that birthday you *looked forward* to your birthday in 1962, *but that was in the future, and who could even guess a year ahead about the future?* But the really wonderful birthday was your

*graduation year birthday. Twenty-one and a graduate at last!”* (An item of fact you have carefully learned and to which you lead and finally state in terms of present reality with utter and pleasing emphasis. Or one could continue as above to the 17th birthday or the 10th or whatever year might be desired.)

9. Thus there has been a rapid and easy mention of realities of today gradually slipping into the future with the past becoming the present and thereby placing the mentioned realities, actually of the past, increasingly from the implied present into the more and more seemingly remote future. ‘
10. Significant dates which are in themselves indisputable are selected, and as the backward progress in time orientation continues to the selected time, some actual positive strongly tinged emotional event is mentioned.
11. Throughout, tenses are watched carefully and one speaks freely, as in the illustration given of the 21st birthday. It is the year of 1956, hence one speaks joyously of the instructorship that *will be in September*, which is yet to come. (Reorientation in time by implication and emotionally validated by vivifying the emotions of the past.)
12. Throughout the entire time each statement is made impressively, with adequate and appropriate inflections, but before the subjects in their attentiveness have any opportunity to take issue with or to dispute mentally what has just been said, a new utterance compelling their attention has been offered to claim their thought and which arouses more effort toward further new understandings, with only a frustration of effort to respond resulting.
13. Finally a clear-cut, definitive, easily grasped and understood statement is uttered, and the striving subject seizes upon it as a Rock of Gibraltar in the running flow of suggestions that has kept him helplessly following along (graduation day and birthday—emotionally potent and coincidental and a valid fact).
14. Reinforcement of the patient’s reorientation in the past by a “specific orientation” to a “general” orientation such as a vague general reference to his “father’s job,” and by wondering, “Let’s see, did it rain the last week?” and followed by mention of the instructorship. (Two general, vague, possible ideas, followed by the validity of the instructorship, all to fixate the regression to the past as the present.)
15. Follow up with the specific statement, “Now that it is all over [the graduation], what shall we do now?” and let the subject lead the way, but carefully interposing objections to some impossible remark such as, “Let’s go down to Lake Mendota and have a swim.” (This is “impossible” since a

bathing suit becomes an immediate reality). Instead one agrees that it would be nice to go to Lake Mendota, there to watch the waves, the birds, and the canoes, thereby leading to hallucinatory activity, and as this develops, hallucinatory swimming may then follow.

At what point does the subject develop the trance and begin to regress? You have mentioned eating, days of the week, months of the year, a backward succession of years, each in itself and by itself a valid utterance but in the total context requiring a constant shifting in the temporal orientation of the subject's thoughts and marked by the changing of tenses, and along with all this there is aroused an increasing vividness of emotions related to the past. (A personal example may be cited here: While relating to a friend in great detail the events of a trip made 10 years previously in the Rocky Mountains with a car having a floor shift, the author, who was driving in a steering-wheel-shift car which he had driven for more than five years, suddenly saw a red light and sought frantically with his right hand to find the floor shift to put the engine into neutral while his friend watched in amazement. The car was stopped only by the expedient of jamming the brake and turning off the ignition before the author realized that the vividness and extensiveness of his memories about the past trip had extended over into the field of unrecognized associated motor memories.)

To answer the question of when hypnosis develops is difficult. If *one wishes to induce hypnosis with age regression as the goal*, one continues until the subject's overt behavior (more easily recognized by long experience) discloses evidence of the desired trance state. However, the process can be interrupted at any point, depending upon the purposes to be served. This will be illustrated later.

To summarize the main points of the above Confusion Technique the following outline may serve. It is a general form that I have used many times, always with different wordings as partly illustrated in the outline to be given. The outline is put into brief form and then remodified to insure proper inclusions at the right places of general items of actual personal significance, but so that they cannot be recognized for their eventual significance, yet can progressively serve to validate the subject's progress.

Thus the following might be used as one of the outline forms for the above illustration; to which, when put into use, are added many details with *ready spontaneous modifications* as determined by the subjects reactions.

I am so very glad you volunteered to be a subject	Joint participation in a joint task
You probably enjoyed eating today	Irrelevant—most likely factual
Most people do, though sometimes they skip a meal	A valid, commonplace utterance
You probably ate breakfast this morning	The temporal present
Maybe you will want tomorrow something you had today	The future (an indirect implication of a certain identity of the past and of today with the future)

You have eaten it before, perhaps on Friday like today	The past and the present and a common identity
Maybe you will next week	The present and the future
Whether last week, this week, or next week makes no difference	The present, future, and past all equated
Thursday always comes before Friday	Irrelevant non sequitur, and valid
This was true last week, will be true next week, and is so this week	Irrelevant, meaningful, and true, but what does it mean? (Subject struggles mentally to put a <i>connected</i> meaning on all this future, present, and past, all included in a meaningful statement which lacks pertinence.)
Before Friday is Thursday and before June is May	How true: But note use of <i>present tense</i> in relation to today's yesterday and to May.
But first there is "whan that Aprille with its shoures soote"	Here comes April of the past (remote past), and it also <i>pinpoints a particular area</i> in the subject's life— <i>his college days</i> . (An item of fact predetermined—it might have been in high school—to introduce Chaucer creates a problem of relating it meaningfully to what has been said but this is a confusing task.)
And March followed the snows of February but who really remembers the 6th of February	Back now to March, then to February, and one does (present tense) remember February 12th, 14th, and 22nd. February 6th only offers confusion (It has been predetermined that February 6th is not a birthday or some such event but if it is meaningful, this serves only to impel the subject to validate that day also).
And January 1 <sup>st</sup> is the beginning of the New Year of 1963 and <i>all that it will bring</i>	Thus is given a memory task. <i>It will bring June</i> (already here) but slipping unaccountably into the remote future because January is given a present tense.
But December brought Christmas	True, valid, vivid memories of the past December and the implied coming of the year of 1963
But Thanksgiving preceded Christmas, and all that shopping to get done and what a good dinner.	November 1962 with an <i>impending urgency to do something in the coming December</i> , an emotionally valid dinner memory, all of 1962. (And there have been many New Years, Christmases, and Thanksgiving Days, all strongly emotionally tinged)

From then on progressively larger steps based upon factual and valid events, Labor Day, Fourth of July, New Year's Day, remembrance that a December of 1961 wish came true, and then finally the 21st birthday and college graduation all set up as a final culmination by the quotation from college Chaucer setting a goal for a specific regression in time and so early in the outline and so unrecognizably. But one is careful to use such a reference as Chaucer only after making sure when there was a reading of Chaucer. Similarly one might make reference to a song of a certain vintage. A few well-placed questions, even with total strangers, obscurely put, will yield much information around which the immediate details of the technique can be built. But bear in mind that while June is the present, it belongs also to all the past as well as to all of past birthdays for this subject, and also to all past graduations. In regression in time any small series of stated personally meaningful events can be used and subtly mentioned early in the procedure in some unrecognized form.

Originally, in the 1920's, the Confusion Technique was used to induce hypnotic age regression. Numerous manifestations noted, at first by chance and then later by watchful observation, led to the realization that the technique could be variously employed to induce hypnosis itself or to elicit specific or isolated phenomena for either experimental or clinical purposes, and much experimentation was done.

### **ILLUSTRATIVE EXPERIMENTAL PROCEDURES**

These studies led to a special experimentation when I attempted in 1932 and 1933 to expound the concept of a certain type of spatial orientation found in schizophrenia, which had interested me since 1929. I had much discussion of this topic with Dr.

Govindaswamy, now deceased, a diplomate in psychological medicine and later superintendent at the mental hospital in Mysore, India, who was spending 15 months in the United States to study American psychiatry. In attempting to outline to him my understanding of how schizophrenic patients could conceive of themselves as simultaneously sitting in a chair looking out a window and at the same time lying on a bed with eyes closed, I realized painfully the inadequacy of my verbal explanation. He could not follow my explanation of the equality and coexistence of two separate spatial concepts of the self without an accompanying spontaneous comparison or contrast and a consequent evaluative judgment. Accordingly I volunteered to let him witness and participate in such an experience through the utilization of hypnosis, which was also a modality in which he was intensely interested. This particular instance is cited because it was so well recorded at the time and illustrates so clearly the building up of a Confusion Technique.

To accomplish this purpose, in a large vacant room I stationed two chairs and then Dr. Govindaswamy and myself in a 12-foot square arrangement, the chairs on one side, we two on the other. The respective positions for the chairs were A and B, those for us, C and D, Miss K, an excellent somnambulistic subject who had been used extensively in experimental work, was then summoned. (Miss K had been deliberately selected for the experiment because of her high intelligence, her quick-wittedness, her fluency of speech, and her remarkably acute ear for changes in voice inflection and voice direction.) All of

us are responsive, often unwittingly so, to a minimal change in the spoken voice when the head is changed to a different position and the voice thereby is given a new direction, and Miss K was unusually keen in this respect. One might recall to mind the common experience of the uninteresting lecturer who speaks to a spot on the back wall, contrasted to the interesting lecturer whose eyes roam constantly over the audience, thereby commanding their attention and giving each member of the audience the feeling that each and all of them are being addressed.

In Dr. G's presence it was explained to her that she was to develop a profound somnambulistic trance in which she would be in full rapport with Dr. G as well as with me. Shortly Miss K opened her eyes and looked at me, passively awaiting further instructions.

While Dr. G listened and watched, the author pasted paper labels bearing in small characters the letters A and B on the respective chair seats, and Dr. G was asked to note, for himself that the east chair was labeled A and the west chair was labeled B. He was asked to take up his position north of chair B and to draw a small circle around his feet with chalk. The author stood 12 feet north of chair A and drew with chalk a small square about his feet.

During this procedure Miss K stood quietly, staring unblinkingly into space. She was then asked to sit down in chair A, which was nearest the author, facing the chair B, the one nearest to Dr. G. Miss K took her seat and again passively awaited further instructions.

Since this entire procedure was a specific experimental effort, full notes were to be made by both Dr. G and the author. (Also, without disclosing his intentions, the author excused himself to correct an oversight, left the room briefly, and secretly summoned Miss F, an assistant, who had worked previously with the author and was well trained in how to record in full his experimental procedures including both words and action. She was asked to remain out of sight behind a certain curtain but where she would have a good view and to make a full shorthand record of all events).

Slowly, distinctly, Miss K was told:

I wish to teach Dr. G something about geography [“spatial orientation,” as a term was purposively avoided] and I need your help. You are to do exactly as I say and nothing more, with one exception. [Italics here indicate a special inflection of slow, intense emphasis with a slight deepening of the voice.] That exception [no special inflection on this use of the word “exception” had been given] is this. You will note mentally and remember whenever I do something that Dr. G does not do and vice versa. This you will do separately and apart from all the rest you are to do, and tomorrow, when you do some typing for Dr. G and for me, these separate memories will come to your mind, and you will fit them into the typing you are doing without saying a word about it to either of us.

Now for today's work. The special task I have for you to do is this: You are to sit right where you are *continuously*, *continuously*, *continuously* [the same special inflection used in the preceding paragraph with *one exception* was again used with the word "continuously"] without ever moving. Dr. G will watch you and so will I. Yet, I want you to know that that chair [pointing at A] you are in is here to you [pointing at B] is there, but to Dr. G this chair [A] is here and that chair [B] is there, but as we *go around* [the same special inflection mentioned above again being used for go around] the square, I am here and you are there, but you know you are here and you know I am there, and we know that chair [B] and Dr. G are *there*, but he knows he is here and you are there and that chair [B] is *there* and I am *there* and he and I know that you and *that* chair [B] are *there*, while you know I am here and Dr. G and that chair [B] are *there*, but you know that Dr. G knows that he is *here* and you are *there* and *that* chair [A] is *there* and that I who am here am really there, and if that chair [B] could think, it would know that you are *there* and that Dr. G and I both think we are *here* and that we know that you are *there* even though you think you are *here*, and so the three of us know that you are *there* while you think you are *here*, but I am here and you are *there* and Dr. G knows that he is *here*, but we know he is *there*, but then he knows you are *there* while he is *here*.

All this was said slowly, carefully, impressively, while Miss K listened intently, and the author strove to record his statements and tried to give Dr. G an opportunity to record them. (His record was later found to be most confused and incomplete as was the author's record, but fortunately Miss F obtained a full and accurate record because of her previous training in recording the author's Confusion Techniques).

Shortly Dr. G appeared to be unable to record any of the author's impressively uttered statements, glanced at and traced with his finger the chalk mark about the author's feet. The instructions were continued:

And now Miss K, slowly at first and then more and more rapidly until you are talking at a good speed, explain to Dr. G that while he thinks he is *here* and you are *there*, that you are *here* and that he is *there* even as I think that chair is *there* and I am *here* and you are *there*, and just as soon as you are saying it rapidly and Dr. G is beginning to understand that he is *here* and you are *there*, still talking rapidly, you slowly change from this [pointing at A] chair to *that* [pointing at B] chair, but keep his attention on your explanation of how each of us can think be *here* and be *there* or be *there* and *think* be *here* and then when he sees you sitting there, and thinks you are here, gently return, still explaining and even laughing at him for thinking you are there when you are here, and then not recognizing that you are *there* while he is still thinking you are *here*.

Miss K then took over, first speaking slowly, then with increasing rapidity. At first Dr. G ceased to try to record, and it soon became impossible for the author to record Miss K's rapid utterances identifying *here* and *there* variously employed.

At about this time the author noted horizontal nystagmus in Dr. G's eyes, and Miss K, still talking rapidly, reiterating variously the author's explanations of *here* and *there*, glided gently from chair A to chair B. Dr. G checked visually his chalk circle, the author's chalk square, and suddenly shouted, "You are sitting *here* in this chair," to which Miss K replied simply, "Yes, I am sitting *here* [changing places] in that chair *there* [changing places again]."

The horizontal nystagmus in Dr. G's eyes became worse, and he seized a piece of chalk and walked hastily over and marked a small x in front of one chair and a small o in front of the other chair. The author promptly signaled Miss K with his right hand, pointed at the chalked x and o with his left hand, and made a covering movement with his foot. Miss K kept on talking *here* and *there*, gliding back and forth between the two chairs, sitting first in one and then the other, each time covering the x or the o with her foot while Dr. G said "You are sitting in the x chair—no, the x is gone but the o is there, so you are sitting in the o chair, but the o is gone (Miss K had quickly moved over) and the x is *there*, but the x is gone and the o is *here* and so you are *there*."

His eye nystagmus increased greatly, he complained of severe vertigo, nausea and a painful headache. The experiment was discontinued, Miss K was aroused and dismissed, and the author deliberately began a continuation of the original question of dual spatial orientation in schizophrenia. Gradually Dr. G's headache, nausea, and vertigo disappeared; he picked up his notebook, began to read, and seemed suddenly to have a partial sudden recollection of some of the experimental procedure.

He explained that as the author had given his original instructions about *here* and *there* he had experienced much confusion, but that when Miss K had taken over and increased the rate of her speech, he had felt himself becoming dizzy and that suddenly the room began turning around and around. This he had attempted to stop by making x and o marks, but those seemed to shift back and forth and to disappear unaccountably even though the chalk circle and square remained constantly present. He appeared to have no realization that Miss K had actually changed back and forth from one chair to another, only that the room kept whirling around with increasing subjective distress and confusion on his part.

The next day Miss K was asked to type her recollections of yesterday's experimental procedure. She promptly developed a spontaneous trance and remained inactive. She was given instruction to recall and given a posthypnotic suggestion that she then type her recollections. She explained in the trance state, "I was so busy watching Dr. G and you and remembering *here* and *there* that I can't remember. I was just concentrating on saying *here* and *there* in different ways and being sure of what was being said just to me and what was being said to both Dr. G and me by the inflections of your voice. When you first said "one exception" and then said I was to sit 'continuously, continuously, continuously' with that same inflection three times, I knew you were saying one thing to Dr. G but something different to me, and I had to watch for it (the inflection) again because I knew you meant something special."

Nevertheless in the waking state Miss K readily typed my notes and Dr. G's, but it was noted that she apparently developed brief spontaneous trances whenever she inserted parenthetically various items in both Dr. G's record and mine, arousing spontaneously and continuing her typing without apparently noticing the insertions. (Much later I thought of time distortion and its possible bearing on Miss K's spontaneous trances and parenthetical insertions in her typing without there being any interruption of her typing. Perhaps, even quite possibly, she relived in distorted time the events of the previous day despite her trance assertion of inability to remember. These parenthetical insertions were less complete, but in good accord with Miss F's full record).

In Dr. G's effort to record Miss K particularly noted his failure of recording certain notes, his marking of the x and the o, his glancing at and fingering the chalk circle about his feet and glancing at the square about mine, and his apparent confusion when he emphatically announced that she was sitting in chair A and then noting that she was actually in chair B without having noticed her shifting of her position. She also noted his confusion about the appearance and disappearance of his marks of x and o, and she had observed the nystagmus. (This latter Miss F did not note—she could not see it—but she did note unsteadiness and arm waving as if to keep his balance. This latter Miss K also noted). She also noted many gaps in the author's record because of his intense concentration on the task and correctly interpreted the author's notations of x and o and his writing of them crossed out or not crossed out as meaning "covered up" and "in view."

Miss F's account was fully comprehensive but could not be read by Dr. G, despite repeated attempts, without developing vertigo, nausea and a headache. (This recurrent reaction is a most suggestive experimental induction of profound psychological and physiological responses.) Reading by Dr. G of his record with Miss K's parenthetical insertions elicited sudden but not complete recollections, such as, "That's right, she did change chairs, only I didn't see her do it," and "She put her foot on the x, that's why it disappeared." However he could not fully recall the entire experience. After this experiment Dr. G sought out schizophrenic patients who showed altered spatial orientation for special interviews and explained that their assertions had become much more meaningful to him. He also expressed much sympathy for certain patients who complained of distress from altered spatial orientation. It may be added that he was unwilling to be a hypnotic subject, but he did inquire several times if he had been hypnotized on that occasion. An evasive answer each time seemed appropriate to the author and was each time readily accepted by Dr. G. That he did not want to know with certainty is a reasonable interpretation.

As a further test of this procedure with Dr. G it was employed separately on three other subjects, all having doctoral degrees in clinical psychology. The first such subject, Mr. P from Princeton University, personally disliked the author but was an ardent experimentalist who did not let his emotions interfere with his work. In fact he tended to dislike far too many people, but would collaborate wholeheartedly with them in experimental work.

The second subject, Miss S of Smith College, was interested in hypnosis but opposed for no reason that she knew to being a subject. She had observed others going into a trance unexpectedly without having been asked to do so or without volunteering while observing the induction of a trance in volunteer subjects. She had remarked to the author that she was too wary to allow this ever to happen to her, and when asked what she would do if it were to happen, she replied, "Once would be enough. Then I'd see to it that never did again."

Mr. Y of Yale University had done some work with Hull, had tried many times to go into a trance as an experimental subject, and had never succeeded. Hull termed him an "impossible subject." While he was highly intelligent and extremely capable of working out an adequate protocol for controls, subjects, and procedures, he always insisted on a few rehearsals of his experiments with nonsubjects, even in simple nonsense-syllable learning experiments.

All of the subjects, including Dr. G, were in the age range of 27 to 31. Exactly the same procedure was employed with them as had been followed with Dr. G. Separately with each of them the author had discussed the problem of spatial orientation as observed in some schizophrenic patients and then proposed the possibility of doing a hypnotic experiment on the matter by using one of his subjects. Each was interested and expressed interest in being an observer.

Exactly the same procedure as had been employed with Dr. G was followed, with the exception that the term "spatial orientation" was used instead of "geography" as had been done with Dr. G. The reason for this was that in Dr. G's case the author did not know just what Miss K would understand by "spatial orientation," but he did know that she understood the game of "I am here and you are there and New York is there," etc.

Another difference was that Miss F had read all the reports on Dr. G and was placed so that she could observe the subjects' eyes and still be out of their sight. Secretly Miss K had been given hypnotic instructions to have an amnesia for Miss F's presence. Much rereading of the Dr. G record enabled the author to proceed with greater ease and comfort, and both Miss K and Miss F were better qualified for their tasks, having done it once.

The results obtained with all three subjects were comparable to those secured from Dr. G with minor individual differences. None used the chalk, as available to them as it had been to Dr. G, to mark an x or an o to identify the chairs A and B. Each personally inspected the seat of the chair on which the author pasted the letters A and B. Mr. Y made this inspection three times for each chair, while Dr. G merely accepted the author's statement. Miss S and Mr. P merely watched the author draw the chalk circle and square about their feet and his, but Mr. Y glanced back and forth at the circle and square.

With Dr. G a little over an hour elapsed before the experiment was concluded. With Mr. P, who was the first of the three to be used, 35 minutes were sufficient. Miss S was the second, and 45 minutes were needed. Mr. Y needed only 25 minutes.

All three developed nystagmus, Mr. P and Mr. Y by their movements manifested vertigo, Miss S complained verbally of feeling dizzy.

None noticed Miss K slipping back and forth from one chair to the other.

Mr. P was noted to become angry first at Miss K and then at the author in addition. Miss K's record and that of Miss F typed the next day showed respectively (getting angry me), (more angry) (still angrier me and Dr. E) (yelling at us) (furious) and (getting mad at K) (madder), (really mad both), (yelling and then screaming at both Miss K and Dr. E).

Miss S was noted by both suddenly to glance about the room in a bewildered way and to complain of a severe headache and general physical distress.

Mr. Y was noted to keep moving his arms about as if to balance himself as his nystagmus grew worse. Then suddenly he closed his eyes and stood passively, presenting the appearance of a deep hypnotic trance.

The experiment for Mr. P was concluded by signaling silence to Miss K and stepping over to Mr. P and gently leading him outside the experimental room, closing the door behind us, the author resuming the conversation of spatial orientation at the point that it had just reached at the moment of beginning to open the door of the experimental room to perform the experiment. This had the effect of reorienting him in time to the moment at which we were about to enter the experimental room and had the effect of arousing him from an obvious hypnotic trance and with an amnesia for that trance state. Glancing at my watch I remarked that we had spent so much time in discussion that the experiment would have to be postponed, and the suggestion was offered that arrangements would be made at a later date. He was dismissed in an ordinary waking state.

The same procedure was employed with Miss S and Mr. Y with similar results.

These experiments were all done in one day, and assignments were so arranged that there was no opportunity for the three to meet that day.

The next day Miss K and Miss F typed up their respective reports on each subject. After reading them through and comparing them with each other and with the author's own memories, they were set aside for several days.

However, the next day Miss S came to the author with a peculiar complaint to the effect that she had to get some material out of the "Observation Room" but that she had developed "a peculiar phobia all of a sudden." This was a fear of entering that room (it had been the experimental room), and when she had forced herself to open the door, she had developed an excruciating headache. She wanted to know what was wrong. The answer was given that she was a clinical psychologist and had just described a phenomenon that she might like to explore on her own for a day or so, especially since she had said the headache had disappeared immediately upon closing the door.

Care was taken to have adequate contact with Mr. P and Mr. Y. Nothing new or unusual was noted. Nor was anything of note observed by Miss F or Miss K.

That weekend each was called separately into the office and each was given the accounts of the other two subjects to read. Each read those accounts with interest but with no seeming recollection of their own experience. They all thought the whole procedure was a most interesting, complicated hypnotic experiment and asked if they might be present to observe, should the author ever repeat the experiment. Each was then handed the record on Dr. G. Before each had finished reading the account, they realized that Dr. G referred to Dr. Govindaswamy. They then took the other records and studied them, speculating upon the possible identities of the other subjects without any success (each had been given the initial of the institution from where they came). Only Miss S ventured the speculation that Mr. P's record sounded like something Dr. M (Mr. P's actual initial) would do, but she went no further than that in her speculation.

Each was given his own record to read. Mr. P read his and commented that he would probably feel the same way if that sort of thing were done to him.

Mr. Y's only comment was, "Well, that chap figured out a good escape for himself." Miss S read and reread the record on her with utter intentness and with an expression of growing understanding on her face.

Finally she looked up at the author and said, "So that's it. No wonder I had that phobic feeling and developed a headache. This is a record on me—". With this she jumped up from her chair, rushed down the corridor, and returned in a few minutes to report, "It's me, all right, I'm dead sure. I have a total amnesia, but I'm afraid of that room. I got a headache the moment I started to open the door. It vanished when I yanked the door shut. But I still don't remember a thing about it, but I am completely convinced that this is a record on me." Then she demanded, "What are you going to do about my phobia and headache?"

Reply was made, "That will be very simple. I can deal with it effectively, but I would like to do it in a way most instructive to you." Very warily she said, "And what is that?" My reply was to pick up the telephone and ask Dr. T (Mr. Y) to come to my office. Upon his arrival I asked him, "Do you mind showing Dr. W (Miss S) something?" He agreed readily, and the three of us walked down the corridor to the "Observation Room." There I suggested that we all enter it, and would Dr. T go first? He did so readily, but immediately developed a deep trance state as he entered the room. Motioning to Dr. W to step back out of sight, I stepped inside, took Dr. T by the arm, gently led him outside, and resumed my original discussion of spatial orientation, again reorienting him to the time of the original approach to that room. He wakened with a total amnesia, and I commented that it was really too late to attempt an experiment that day. We returned to my office with Dr. W following discreetly behind me. I signaled her to enter the office, and as we all took seats I handed him the report on himself. He glanced at me quizzically, at the record casually, and then with a look of bewildered amazement practically shouted,

"That's me, that's me." He added, "That happened last Monday, and when we came into the office, I was still thinking it was Monday."

Dr. W remarked, "And this record on Miss S is mine. When I saw that massive recollection by Dr. T, I experienced the same phenomenon." She paused thoughtfully, darted out of the office, and shortly returned to ask, "Why don't I have the phobia and headache now?"

Reply was made that much earlier she had commented that she was "too wary" to allow an unexpected trance induction in her, but that if it ever happened, she would see to it that it never happened again. Hence her own unconscious mind had prevented her from entering the room where she had unwittingly gone into a trance lest a spontaneous trance such as Dr. T had just demonstrated might occur. This possibility her unconscious mind appreciated, hence her "protective phobia." This had led her immediately to seek out the author when she could have gone to a number of other physicians. Thus her unconscious had recognized that he was responsible and that the reply he had made carried an implication that there was no danger but an opportunity to learn. Hence she had readily accepted the statement that since she was a clinical psychologist, she could spend a few days thinking about it. By implication this signified that her phobia and headache could and would be corrected.

Then when she witnessed Dr. T's massive recollection, she was unconsciously impelled by her own spontaneous massive recollection to put it to test by dashing to the Observation Room and entering it with no fear of unwittingly developing a spontaneous trance.

The question then arose about Mr. P, about whom Dr. W immediately declared, "When Dr. M read that account of Mr. P, he said that was just the sort of a response he would make in such a situation. Let's call him in, and how shall we handle it?"

The author suggested that when Dr. M arrived, he would hand each of them their own records, asking them to reread them and that the author would sit so that he could see the page numbers on Dr. M's record. They were told that all three of them would be instructed to reread the records previously read by them, but that they (Dr. W and Dr. T) were to turn pages as if they were being read, but that they should primarily watch Dr. M's face. Then when the author cleared his throat, Dr. W was to say quietly, "I am Miss S," whereupon Dr. T would follow suit by saying, "I am Mr. Y." Dr. M read the record of Mr. P assiduously, and when he reached the place at which Miss F described Mr. P as "yelling and screaming at Miss K and Dr. E," the author cleared his throat and Drs. W and T made their remarks. Dr. M started violently, flushed deeply, and in a tone of utter amazement, he declared, "Wow! I certainly was raging mad right then".

He went on, "The whole thing is completely clear now in my memory. All week I've been haunted with a feeling that I knew something that I didn't know. No wonder I said that I would act like that fellow if that sort of thing were done to me."

Immediately Dr. W took Dr. M's hand and led him down the corridor to the Observation Room. She opened the door and asked him to step inside. Dr. M unhesitatingly walked in, looked around, and remarked, "That's right. This is where it happened." Thereupon he began to reconstruct verbally from memory the original experimental management of the room.

Thus did Dr. W demonstrate to her satisfaction that unconscious knowledge shared with the conscious mind would preclude a spontaneous trance such as Dr. T had developed. She asked what would have happened had she gone into the Observation Room before recollection had been made possible for her. She was told, "You would have developed a spontaneous trance, recognized that face unconsciously, and then you would have aroused immediately with most unkind thoughts and attitudes toward me, and it would have taken a long time to get back into your good graces."

Later Dr. W sought hypnotherapy for chronic dysmenorrhea accompanied by a severe headache; Dr. T acted as a subject in various experiments, and the attitude of Dr. M became much more friendly toward the author.

### **ILLUSTRATIVE CLINICAL PROCEDURES**

Almost exactly the same technique of *here*, *there*, *this*, and *that* has been used repeatedly by the author for clinical purposes. Patients who enter the office and state frankly that they are resistant or who merely manifest an overt resistance to therapy and yet are obviously seeking it are offered the casual comment that as they sit in *that* chair they are resistant, but would they be resistant were they sitting in *this* other chair, or would they be nonresistant in *this* chair and thus leave their resistances in *that* chair they now occupy; that they can mentally consider changing chairs and sitting *here* in this one and leaving resistance in *that* chair *there* or sitting in *that* chair *there* while their resistance remains *here* in this chair *here*; that they might try sitting in *that* other chair there without resistance and then coming back *here* to this chair *here* and taking up their resistances either to keep or to leave them *there* in *this* or *that* chair or *here* or *there* with as much and as varied repetition as is needed.

Thus they are given a confusion in relation to their resistances and in a manner inexplicable to them. There results an unwillingness to keep the confusion, and hence they tend to relinquish their resistances and to cooperate with the therapy they are seeking. Sometimes a trance ensues, sometimes not, depending upon the intensity of their needs.

Clinically the Confusion Technique has been used in various other instances. Two such cases will be cited, similar in character, both seeming to be suitable patients for a Confusion Technique and each having a similar complaint. One was a 28-year-old woman, the other a 45-year-old man. Both complained bitterly of a complete hysterical paralysis of their right hand whenever an attempt was made to use it in writing. Both had positions requiring writing, and both were right-handed. In all other relationships and activities there were no right-handed difficulties, not even in typing. But a pen, a pencil, a

stylus, or even a large stick with which to outline on the floor their names, a letter, or even a line, straight or crooked, resulted in a completely rigid paralysis of the right hand. Like all such patients this author has seen and has had reported to him by colleagues, both patients were adamant in their refusal to learn to write left-handedly, even to sign their names. Experience has also taught the author that any insistence upon learning to write left-handedly is likely to cause the loss of the patient, an experience also reported by colleagues.

Remembering the old childish game, "Put your *right* hand in front of you over your heart; now really pretend to throw away your *left* hand by putting it behind you. Now, which hand is *left*?" Inexplicably to the child, he finds himself in the difficult position of describing his *right* hand as his *left* hand. Furthermore, one can only *write right* from *left* to *right*, one cannot write *right* from *right* to *left* and *write* is not *right* nor is *right write* while *left*, though *left*, can *write* though not be *right*, yet *left* and *write right* from *right* to *left* if not from *left* to *right*.

With this sort of thinking in mind an extensive history was taken (actually not really extensive, since such patients in the author's experience are definitely restricted in the personal information they can offer) to obtain items of personal significances.

Another appointment to give the author adequate opportunity to work out a technique was given each patient.

In this preliminary preparation careful outlines were made in which to include meaningful personal items as irrelevances in a Confusion Technique centering around the words *right*, *left*, and *write*, intermingled with minor personal details to make them applicable respectively to each patient.

The woman was the first patient, and as the Confusion Technique was gradually intruded into the initial casual conversation, she became increasingly confused and uncertain, and finally developed a good trance state when told in prolonged detail that "it is *right* and good that your *left* hand is now on the *right* (it had elaborately and quite forcibly been placed by the author on her right shoulder) and that your *right* hand which cannot *write* is on the *left* (thigh, thus to establish a specious anatomical relationship). And now your *right* hand that cannot *write* is on the *left*, you have the hand on the *right* (shoulder) to *write*."

With further elaboration and repetition, and several further trances with carefully worded posthypnotic suggestions, the patient made a permanent transfer of her right-handed writing disability to her left hand, to which was added by posthypnotic suggestion "a peculiar, not unpleasant, but interesting dollar-size spot of coolness on the back of your left hand." Three years later she was still working steadily, still had her left-handed paralysis whenever she attempted so much as to pick up a pencil with it, and the "cool spot" was still present and a source of childishly intense pride. Clinically she was regarded as a therapeutic success, although there was much about her that warranted change but with which she was entirely satisfied—for example, her extreme untidiness in

her housekeeping and her extreme tardiness in her many social activities such as arriving two hours late for a birthday dinner prepared for her by a friend who had made repeated telephone calls to speed her arrival and to avoid keeping the other guests waiting. Nevertheless she was well-liked or at least extremely well tolerated, and she continued to be adequate with respect to right-hand functioning.

An even more carefully devised Confusion Technique was worked out for the man, who was of decidedly superior intelligence, a more difficult problem, and much quicker-witted. Since his work involved insurance, the words "*insurance, assurance*" *insure, assure, reinsure, and reassure* were intermingled with *write, right, left*, and fortuitously a relative of his was "named Wright but was not a wheelwright, though he could wheel right around right and thus go left which would be right." In other words the more difficult technique simply involved a more elaborate play on words and more utilization of various items taken from the patient's history together with quicker and more confusing changes of tense. In no way could there be secured a shift of his disability from right hand to the left. However, it was possible in the trance state to get him, perhaps as a measure of escaping his confusion, to accept his disability resignedly, to give up struggling to overcome it, and to accept a promotion previously offered him many times which did not require writing, and which he had consistently refused on the grounds that "I'm going to lick this thing [the writing disability] even if I never do anything else." He was also rated as a therapeutic success even though several years later he again sought out the author for another attempt at therapy for his writing disability, but he was easily put off with a promise to try again when it was most convenient for him. To date he has found no convenient time.

## **VARIOUS REACTIONS TO CONFUSION TECHNIQUES**

The first Confusion Technique discussed in this article, which was also first worked out by the author to involve a time disorientation, offered a relatively easy means for the development of confusion and to use the confusion to elicit age regression. However, careful observation of such use soon disclosed other possible variations and applications. Accordingly a whole series of procedures was worked out, first in outline form and then by filling in details permitting the evocation of a state of hypnosis of specific phenomena and of isolated phenomena.

Another item of particular interest in regard to the Confusion Technique is the reaction of both experimental and clinical subjects. The latter, because of their therapeutic 'motivation, often lose their resistances and simpler techniques can then be employed. Occasionally, while resistances persist, they do not seem to mind repetitions of the same or varied forms of the Confusion Technique.

With experimental subjects the reactions vary greatly and sometimes in an intriguing way. For example, Miss K had had many variations of the Confusion Technique employed on her, and she always responded readily to the same or to variations of it. Additionally in the trance state she was much more adept than the author in using a

Confusion Technique on other subjects, and it mattered not whether it had been used on her or merely, as above, described for the first time to her in the trance state.

In Miss F's case she too responded repeatedly to the same or other Confusion Techniques. However, she could not use a Confusion Trance when she was either in or out of hypnosis. In fact most subjects while in a trance and who have been hypnotized by a Confusion Technique seem unable to use it, although in the trance state they will use successfully the ordinary traditional techniques even when they fail to be able to induce a trance in the waking state. Indeed long experience has disclosed that the easiest and quickest way to learn to induce a trance is to be hypnotized first, thus to learn the "feel" of it.

It is also of interest that subjects who respond readily and repeatedly to Confusion Techniques are likely to develop a trance while listening to a Confusion Technique being used on someone else. Miss K and Miss F, however, were remarkably competent secretaries and could listen to the Confusion Technique previously used on them and later record that same technique being used word for word upon someone else, making a complete record with no hypnotic response on their part. Apparently the presence of their sharpened pencils and the task constituted an adequate counterset against any hypnotic response. Also, upon request, both could record in shorthand in the trance state the Confusion Technique used on someone else. It is of interest to note that the measure of using a Confusion Technique to induce a trance in them, and then having them in the trance state record the use of the same technique on others with slight subtle alterations pertaining to them as persons did not affect their trance state or ability to record.

Miss H and Mr. T were excellent subjects for either traditional or the Confusion Techniques. However, after a few experiences with the Confusion Technique they reacted by bypassing it and developing a trance at once, no matter how subtly the author made his approach. As they would explain in the trance state, "As soon as I experienced the slightest feeling of confusion, I just dropped into a deep trance." They simply did not like to be confused. Neither of these subjects, fully capable with more common techniques, could seem to learn to use a Confusion Technique or even to outline a possible form. There were others who responded similarly.

Mr. H (no relative of Miss H) responded readily to various Confusion Techniques, spontaneously discovered that he could use them in the trance state and that he could conduct experiments on other subjects while he was still in the original trance I had induced in him by a Confusion Technique, and later investigate his waking capacity to devise and use effectually Confusion Techniques. In this connection his first spontaneous discovery of his capacity to use a Confusion Technique will be related here as an interesting and informative example.

Professor M at Yale University was highly critical of Clark L. Hull's work there and most disbelieving of hypnosis as an actual phenomenon. He sought out the author for further enlightenment about hypnosis and to see if the author could duplicate some of the hypnotic studies being made at Yale University. He was a psychologist himself, had

never done any hypnotic work, and was not yet convinced of the validity of hypnosis by the studies to date at Yale. He was frank and free in his statements of his understandings and asked if the author would demonstrate hypnosis to him and perhaps duplicate some of the things, that had been done by Hull and his students.

After some thought the author agreed and summoned by telephone two excellent somnambulistic subjects. Upon their arrival they were introduced to Professor M, who explained simply and fully his attitudes and wishes. Both subjects expressed a willingness to do anything he wished if the author approved.

This approval was given by suggesting to Miss R, who had a Ph.D. in psychology, that she hypnotize Mr. H and demonstrate hypnotic phenomena fully, in accordance with Professor M's request. The author then excused himself, after explaining to both Miss R and Mr. H that they would remain in rapport with the author despite his enforced absence at that time to work on an ergographic study of fatigue abolishment by hypnosis which was under way with another colleague. It was also added that the author would be absent for about an hour, possibly more, hence Miss R could take her time in whatever Professor M wished.

When the author returned about an hour later, he was confronted by a bewildering sight. Professor M was sitting at the desk ineffectually trying to make notes with a bemused and puzzled expression on his face. Miss R, who had been told to hypnotize Mr. H, was most obviously in a deep somnambulistic trance. Mr. H was also in a deep somnambulistic trance. Only Mr. H retained rapport with the author, manifesting it by looking up at the author as the author entered the room. Miss R apparently was unaware of the author, despite the fact that her eyes were wide open, and the author had immediately asked, "What has been taking place, Miss R?"

Her failure apparently to hear the author and the total situation itself suggested that a record be made of the situation. Miss K was immediately summoned, and upon her arrival with notebook and pencils the author stated, "Maintain the status quo. Now Mr. H, are you in a trance? And is Miss R in a trance?" To both questions H answered "Yes." "Are you both in rapport with me?" "No." "Who is, and why?" "Just me. I told Miss R to be in rapport only with me."

The author immediately said, "Stay as you are, maintain the status quo, do nothing more. I am taking Professor M out of the room for a while, and the two of you remain as you are, inactive. Is there any comment you wish to make about Professor M?"

Mr. H said simply, "He recognizes hypnosis as a genuine thing now," but made no response to the presence of Miss K or the professor.

Professor M, Miss K, and the author went into the next room. Systematically Professor M was asked what had happened.

In summary he explained that Miss R had induced a “deep trance” in Mr. H by hand levitation and had then used him to demonstrate anaesthesia, catalepsy, amnesia, positive and negative ideomotor and ideo sensory phenomena, hypermnesia, posthypnotic suggestions, trance awakening, and reinduction.

In relation to each of these demonstrations she had asked Professor M to make his own tests of each phenomenon. This had convinced him that he was observing a most interesting and valid phenomenon.

When Miss R reinduced hypnosis in Mr. H, Professor M stated that Miss R had asked Mr. H if there were anything else that might be done to instruct Professor M. Mr. H had answered with a simple “Yes.” She then asked if he would do it. Again he replied with a simple “Yes,” but made no move of any sort. She had then asked, “Well, what is it?” To this he replied, “Can’t tell, just do!”

The professor then said;

“That was when I really got my eyes opened. Mr. H slowly got up out of the chair where he was sitting, his eyes open and unblinking, pupils dilated and apparently lacking in peripheral vision. He walked over to Miss R, took her hand very gently, lifted it up slowly, and softly told her to go deeply asleep in a deep trance. Then, when she started to say something, he began to talk in a very confusing way about you and me and Miss R and him and hypnosis and demonstration and ergographs and phenomena, and I got so confused that I didn’t know what was happening until I suddenly realized that Miss R was in a trance and that he was too. Neither one took any notice of me, and he asked Miss R to do a lot of things comparable to what she had him do, but he added some. For example he told her to awaken with an amnesia for her name and whereabouts. At first I thought she was awake and I asked her her name, but she didn’t seem to hear me, and Mr. H didn’t seem to hear me either. I shook them both by the shoulders, but they made no response. Then she seemed to be frightened, so he told her to sleep deeply and feel comfortable and at ease. I was trying to think this through when you came in. I guess from the questions you asked, you grasped the situation.”

We returned to the room where Miss R and Mr. H were waiting passively.

Mr. H was told to awaken. He did so at once, and a few simple questions disclosed the fact that he was reoriented in time to the author’s announcement of his impending departure for the ergograph experiment.

The author then spoke to Miss R, but she failed to make any response. Mr. H looked astonished and bewildered, but before he could say anything, the author quickly intervened and asked Mr. H to tell Miss R to listen to the author. This he did, and the author said, “Is there anything you would like to say to me *now that I have come back?*” (This was a disguised instruction for her to arouse from the trance state.)

Her reply was one of instant arousal with a temporal orientation to the time at which she had reinduced the trance state in Mr. H. She replied simply that she had demonstrated all the usual phenomena to Professor M but that the author might wish to take over, explaining that Mr. H was still in a trance. Immediately Mr. H declared, "No, you are the one in a trance. I just had to transfer rapport to Dr. Erickson so he could talk to you, and he hasn't yet told you to rouse up from the trance."

In bewilderment she answered, "No, you are in a trance, but I don't understand your behavior."

For another hour we let the two of them try to solve the situation while Miss K took notes.

Both had amnesia for their own trances, both believed the other to be in a trance, both could recognize that the other was behaving as in a waking state, and neither could elicit trance behavior from the other, nor could they even agree on the time. (I had confiscated Miss K's and Professor M's watch and removed mine, and neither of them had a watch.)

Miss R was certain that I had just returned after an hour's absence, and Mr. H was equally certain that the author was about to depart and Miss R about to begin her task. Both could not understand Miss K's presence and her note taking, nor could they understand the refusal of Professor M and the author to clarify matters.

Finally they were dismissed, still arguing, and Miss K typed up her complete records. Later Professor M made another visit, and they and Miss K were summoned. To Miss R and Mr. H the issue was still unsettled, and neither seemed able to follow with recognition their respective trance experiences when reading Miss K's typewritten account.

However, interviewed separately in a deep trance state, both recalled all trance events, except that Mr. H had to ask Miss R to reestablish rapport with the author at the time he had withdrawn it before she could continue to relate her experiences at the author's request.

Posthypnotic suggestion to them both that they recover full waking memories of their total experiences were successful, and this established a most extensive topic of discussion with them and between them and others.

As for Professor M, he later did extensive experimental work with both Dr. Hull and the author.

Several years after this incident with Miss R and Professor M, for no known reason, Mr. H lost completely for a number of years his interest in, but not his respect for, hypnosis.

Then one day he was confronted with the statement by the anaesthesiologist and the surgeons that an elderly friend of his, absolutely needing a serious operation, would not survive the combination of surgical shock and chemoanaesthesia. Since Mr. H then had

his medical license, he persuaded the reluctant surgeons to operate upon the patient while he used a Confusion Technique to induce a trance state and then a spatial and situational disorientation to effect a hypnoanaesthesia, and the patient underwent extensive abdominal surgery while hypnotically hallucinating a visit at home with Dr. H. His reason for using the Confusion Technique was that the patient and her relatives had been informed that surgery would result in nonsurvival. The patient actually made an excellent recovery, and Mr. H., or rather Dr. H., now uses hypnosis extensively. But he does not want to go into a trance nor can he give the author any explanation of why this is so, nor can he explain his long period of personal disinterest in it.

There is also another type of subject who first reacts well to the Confusion Technique and then turns violently against it. This can be best illustrated by the following eloquent statement:

I have always felt somewhat annoyed and distressed by the Confusion Technique, and I have resented its use, but initially I was willing to listen and cooperate as best I could. Part of my resentment was undoubtedly due to my own mental pattern of thought; I always like to grasp each idea and organize my thoughts before proceeding. However, I went along with the confusion suggestions and I know they worked on me, although not as well as other techniques did.

At the present time they will not work on me. No matter how deep a trance I am in and how cooperative I am, I simply stop listening if that type of suggestion is begun. Nor will I make any pretense of listening. If the operator insists on keeping on talking, I shut off my hearing (self-established hypnotic deafness) and I may wake up—feeling strongly annoyed.

I can pinpoint the changeover from unwilling and somewhat resentful compliance to flat refusal to listen to any confusion suggestions. One day I was trying to decide whether or not I ought to disclose to the operator some information—I am not certain what it was, but I believe it was some information about the work at hand concerning which I was not sure whether or not I ought to disclose it. The operator was seeking that information and suddenly tried a tactic to confuse my thinking—namely, a topic to distract me was mentioned as I was preoccupied with something else, and the operator felt that the information was urgently needed. I cannot remember the confusing way in which the operator urgently demanded the information and attempted to distract me. I felt a surge of anger—I did not reply. Upon thinking it over now, I realize that I thought the tactic was unfair—trying to rush and confuse me into replying instead of allowing me to make a decision based on my considered judgment. I realized, too, either right then or possibly the next time the Confusion Technique was attempted on me, that it was basically the same thing, and it made me angry, too. I’m all through with it. It won’t work again.

Such indeed is the case. Yet for other techniques this subject is remarkably responsive. And as the careful observer will note, both experimental and clinical subjects often have

definite preferences which should be respected. Thus one subject may object strenuously to a relaxation technique but like the hand-levitation technique and at another time be responsive only to yet another technique.

## **VALUES OF CONFUSION TECHNIQUES**

The values of the Confusion Technique are twofold. In experimental work it serves excellently to teach experimenters a facility in the use of words, a mental agility in shifting their habitual patterns of thought, and allows them to make adequate allowances for the problems involved in keeping the subjects attentive and responsive. Also it allows experimenters to learn to recognize and to understand the minimal cues of behavioral changes within the subject.

Clinically it is of much value with patients desperately seeking therapy but restricted and dominated by their clinical problem and uncontrollable resistances which prevent the initiation of therapy. Once these resistances are circumvented, there is then the possibility of securing the patients' cooperation in correcting both their clinical problems and dissipating the resistances. A final value is that long and frequent use of the Confusion Technique has many times effected exceedingly rapid hypnotic inductions under unfavorable conditions such as acute pain of terminal malignant disease and in persons interested but hostile, aggressive, and resistant.

Perhaps it would be well to give an example of a Confusion Technique used in handling resistant, disbelieving cancer patients, one suffering continuous pain and one suffering from irregularly periodic bouts of excruciating pain lasting from 10 to 30 minutes and often longer. In this author's experience the only real difference lies in the patients themselves, since essentially the same technique can be used on either type of patient with slight modifications to make it more personally applicable.

One patient suffering continuous pain with numerous metastases throughout her body was highly resentful over her impending death, unwilling to accept narcotics because she received no relief unless made stuporous, and she was most eager to spend all the time possible with her family. Her entire family had adverse religious ideas about hypnosis, even though it had been recommended by her family physician, a member of her faith. Fortunately the family was convinced by the printed words in a medical book, an article in an encyclopedia, and a personal letter to the author from a missionary of her faith telling of the successful use of hypnosis on her converts in treating them medically.

The other patient was a man in his 50's, who suffered at irregular but frequent and unexpected intervals from bouts of excruciating pain that were becoming progressively longer, ranging from 10 minutes to one hour, but with short bouts becoming fewer and the long bouts becoming increasingly more frequent.

His attitude was one of scornful disbelief and mockery as well as bitter resentment at his fate and a hostile attitude toward everyone, especially the medical profession for being so "stupid about cancer."

At all events the same general Confusion Technique was used, except for the special references of personal implications.

The approach was;

You *know* and I *know* and the doctors you *know know* that there is *one answer* that you *know* that you don't want to *know* and that I *know* but don't want to *know*, that your family *knows* but doesn't want to *know*, no matter how much you want to say *no*, you *know* that the *no* is really a *yes*, and you wish it could be a good *yes* and so do you *know* that what you and your family *know* is *yes*, yet you wish that *yes* could be *no* and you *know* that all the doctors *know* that what they *know* is *yes*, yet they still wish it were *no*. And just as you wish there were *no pain*, you *know* that there is *but what you don't know is no pain* is something *you can know*. And no matter what you *knew no pain* would be better than what you *know* and of course *what you want to know is no pain* and that is *what you are going to know, no pain*. [All of this is said slowly but with utter intensity and with seemingly total disregard of any interruption of cries of pain or admonitions of "Shut up".] Esther [John, Dick, Harry, or Evangeline, some family member or friend] *knows* pain and *knows no pain* and so do you wish to *know no pain* but *comfort* and you *do know comfort and no pain* and as *comfort increases* you *know* that *you cannot say no to ease and comfort* but *you can say no pain and know no pain* but *you can say no pain and know no pain* but *know comfort and ease* and it is *so good to know comfort and ease and relaxation* and to *know it now and later* and *still longer and longer as more and more relaxation occurs* and to *know it now and later and still longer and longer as more and more relaxation and wonderment and surprise come to your mind as you begin to know a freedom and a comfort you have so greatly desired and as you feel it grow and grow you know, really know, that today, to-night, tomorrow, all next week and next month, and at Esther's [John's] 16th birthday, and what a time that was, and those wonderful feelings that you had then seem almost as clear as if they were today and the memory of every good thing is a glorious thing ....*

One can improvise indefinitely, but the slow, impressive, utterly intense, and quietly, softly emphatic way in which these plays on words and the unobtrusive introduction of new ideas, old happy memories, feelings of comfort, ease, and relaxation are presented usually results in an arrest of the patients' attention, rigid fixation of the eyes, the development of physical immobility, even catalepsy and of an intense desire to understand what the author so gravely and so earnestly is saying to them that their attention is sooner or later captured completely. Then with equal care the operator demonstrates a complete loss of fear, concern, or worry about negative words by introducing them as if to explain but actually to make further helpful suggestions.

And now you *have forgotten* something, just as we *all forget* many things, *good* and *bad*, especially the *bad* because the *good* are *good to remember* and you *can remember comfort and ease and relaxation and restful sleep* and now you *know*

*that you need no pain and it is good to know no pain and good to remember, always to remember, that in many places, here, there, everywhere you have been at ease and comfortable and now that you know this, you know that no pain is needed but that you do need to know all there is to know about ease and comfort and relaxation and numbness and dissociation and the redirection of thought and mental energies and to know and know fully all that will give you freedom to know your family and all that they are doing and to enjoy unimpeded the pleasures of being with them with all the comfort and pleasure that is possible for as long as possible and this is what you are going to do.*

Usually the patients' attention can be captured in about five minutes, but one may have to continue for an hour or even longer. Also, and very important, one uses words that the patients understand. Both of the above patients were college graduates.

When such cases are referred to me, I make a practice of getting preliminary information of personality type, history, interests, education, and attitudes, and then in longhand I write out a general outline of the order and frequency with which these special items of fact are worked into the endless flow of words delivered with such earnestness of manner.

Once the patients begin to develop a light trance, I speed the process more rapidly by jumping steps, yet retaining my right to mention pain so that patients know that I do not fear to name it and that I am utterly confident that they will lose it because of my ease and freedom in naming it, usually in a context negating pain in favor of absence or diminution or transformation of pain.

Then one should bear in mind that these patients are highly motivated, that their disinterest, antagonism, belligerence, and disbelief are actually allies in bringing about the eventual results, nor does this author ever hesitate to utilize what is offered. The angry, belligerent man can strike a blow that hurts his head and not notice it, the disbeliever closes his mind to exclude a boring dissertation, but that excludes the pain too, and from this there develops unwittingly in the patients a different state of inner orientation, highly conducive to hypnosis and receptive to any suggestion that meets their needs; sensibly one always inserts the suggestion that if ever the pain should come back enough to need medication, the relief from one or two tablets of aspirin will be sufficient. "And if any real emergency ever develops, a hypo will work far greater success than ever." Sometimes sterile water will suffice.

## **BRIEF CONFUSION TECHNIQUES**

All of the foregoing indicates that the Confusion Technique is a prolonged, highly complicated and complex procedure. Working one out and explaining the rationale of the procedure is indeed a long hard task, but once one has done that more than once, and has learned to recognize the fundamental processes involved, there can then be a very easy, comfortable; and rapid trance induction under some most unfavorable conditions. To illustrate this, both a spontaneous experimental instance and a clinical case will be

reported. The first of these occurred at a lecture before a medical society. One of the physicians present was most interested in learning hypnosis, listened attentively during the lecture, but in the social hour preceding the lecture he had repeatedly manifested hostile, aggressive behavior toward most of his colleagues. When introduced to the author, he shook hands with a bone-crushing grip, almost jerked the author off his balance (the man was at least six inches taller than the author and about 65 pounds heavier) and aggressively declared without any preamble that he would like to "see any damn fool try to hypnotize me."

When volunteers for a demonstration were requested, he came striding up and in a booming voice announced, "Well, I'm going to show everybody that you can't hypnotize me." As the man stepped up on the platform, the author slowly arose from his chair as if to greet him with a handshake. As the volunteer stretched forth his hand prepared to give the author another bone-crushing handshake, the author bent over and tied his own shoestrings slowly, elaborately, and left the man standing helplessly with his arm outstretched. Bewildered, confused, completely taken aback at the author's nonpertinent behavior, at a total loss for something to do, the man was completely vulnerable to the first comprehensible communication *fitting to the situation* that was offered to him. As the second shoestring was being tied, the author said, "Just take a deep breath, sit down in that chair, close your eyes, and go deeply into a trance."

Uncertainly, hesitantly, the man sat down, sighed deeply, closed his eyes, and within seconds he had developed a somnambulistic trance. Various phenomena were demonstrated, and he was then awakened after the posthypnotic suggestion that he would ask me courteously "Well, when do we begin the hypnosis?" and sometime later when I shifted my chair he would have a complete recollection of everything. He aroused and asked the question, to which I replied evasively. After a brief, casual conversation I reached for a glass of water but had to shift my chair. With a startled reaction my subject said, "Well I'll be damned! But how? Now do it again so I can know how you are doing it."

He was offered a choice of several traditional techniques. He chose the hand levitation method as seeming the more interesting, and this technique was employed slowly both for his benefit and that of the audience, with another somnambulistic trance resulting.

As an experimental subject in that situation he presented in an excellent manner the problem of adequately meeting his behavioral patterns and eliciting responsive behavior of interest primarily to the audience, although he too was interested secondarily, but his primary interest as a person was one diametrically opposed. He wished to elicit responses of futility from the author, but even this was a tacit acknowledgment of hypnosis as a valid phenomenon.

The explanation of what happened is rather simple. The man came up to the podium with an intense determination to do something. The author's rising as if to greet him with a handshake and then bending over to tie his shoestrings left the man standing with an outstretched hand, unable to do anything, interrupted so suddenly in the initiation of what

he was going to do, too astonished by the author's completely nonpertinent behavior, utterly at loss for something to do, and hence completely susceptible to any clearly comprehensible suggestion of what to do fitting to the total situation, that he responded relievedly to the simple, quiet instruction the author offered. And of course the man's underlying attitude toward hypnosis became manifest in his prompt request made upon his discovery of what had happened.

Similarly many clinical patients show comparable behavior of hostility, aggression, and resistance, yet they are earnestly seeking therapy. The Confusion Technique alters the situation from a contest between two people and transforms it into a therapeutic situation in which there is joint cooperation and participation in the mutual task centering properly about the patient's welfare and not about a contest between individuals, an item clinically to be avoided in favor of the therapeutic goal.

To illustrate with a similarly handled clinical instance, a patient entered the office for her first appointment with a hesitant, uncertain manner but with what seemed to be too forceful and too defiant a stride. She sat down in the chair in a stiff, upright fashion with her arms rigidly holding the palms of her hands braced against her knees, and in a weak voice hesitantly explained, "I was sent to you by Dr. X, who worked hours on me. Before him was Dr. Y, who also worked hours on me. And before him was Dr. Z, and he worked 30 hours on me. All of them told me that I was too resistant to be hypnotized, but they all said you could do it. But I went to the other two because they were near my home town. I didn't want to come all the way to Phoenix to be hypnotized, but even my family doctor has told me it would help overcome my resistances to therapy." Her diffident, uncertain, hesitant bearing and voice, her definite stride, her stiff upright position, her overemphasis upon the hours futilely spent already in trying to induce a trance, her regretful statement that she didn't want to come to Phoenix to be hypnotized, and her insistence on going to two other men when the first as well as both the others had recommended the author suggested: (1) that she would resist hypnosis; (2) that she was bewildered by her ambivalences; (3) that she could not be approached by any ordinary expectable technique of induction; (4) that she definitely wanted therapy; and (5) that she would try to embroil the author in a contest instead of accepting therapy.

Accordingly she was told rather briskly, "Well, let's get this clear. Three doctors, all good men, just as good as I am, have worked hard and long on you. They found you to be too resistant, as *I will too. So let's have that understood at once.*" With markedly differing inflections and tempo the following was said to her as a two part statement, "*I CAN'T HYPNOTIZE YOU, just your arm.*"

In a bewildered fashion she said, "Can't hypnotize me, just my arm—I don't understand what you mean."

Again she was told with heavy emphasis and with the words spoken slowly, "THAT'S EXACTLY WHAT I MEAN. I CAN'T HYPNOTIZE YOU," then with a soft, gentle voice I added rapidly as if it were one word, "*just your arm, see.*"

As I said the word "See," I gently "lifted" her left arm upward, the touch of my fingers serving only to direct the upward movement, *not actually to lift it*. Gently I withdrew my fingers, leaving her hand cataleptically in midair. As she watched her arm in its upward course, I said softly and sighingly, "Just close your eyes, take a deep breath, so deeply asleep, and as you do so, your left hand will slowly come to rest on your thigh and remain there continuously as you sleep deeply and comfortably until I tell you to awaken."

Within five minutes after her entrance into the office she was in a deep, and as it proved to be, somnambulistic trance. What happened? The woman was desperately seeking therapy, had come a long distance to seek it in response to repeated advice, she came with a rigid counterset for any conventional, traditional, ritualistic, or other techniques that she could watch, hear, and understand. Believably, agreeingly, she heard me say clearly and understandably, "I can't hypnotize you," to which was appended softly, quickly and gently while she was still in a believing or accepting frame of mind, the inexplicable three words, "*just your arm.*"

Thus the very thing that she had come *to prove* was already affirmed; it was a closed issue. We were in total agreement, her purpose to prove that she could not be hypnotized was already accomplished, her counterset for hypnosis rendered unnecessary, useless. But those three peculiar words, "*just your arm,*" confronted her with a most bewildering question of what was meant. Thereby she was literally forced to ask for some explanation. The reaffirmation was given with deliberate emphasis, and while her mind was still receptive, four more words were quickly added, the fourth a command, "See!" From earliest childhood we learn to interpret certain tactile stimuli as meaning, "Move," and *she made an automatic response to such a tactile stimulation*. This she could not understand, she had no counterset for it, and she could "see" her arm behaving in a way she could not understand. Nor was she given any opportunity. The elicitation of one hypnotic response leads so easily to another, catalepsy, pupillary dilation, and then an all-comprehensive set of suggestions was given to insure a deep trance and its maintenance.

Hypnotherapy and waking psychotherapy were used on this patient, and the progress was phenomenally rapid for the simple reason that she was not allowed to interpose her resistances between herself and therapy, but put into a situation of objectively examining them. This was begun almost immediately with the statement, "Well, now we can proceed with therapy rather than wasting time on a question for which neither you nor I really knew the answer, but to which you have so easily found the correct answer, namely that *you can develop and keep a deep trance state* and that you don't need resistances."

## SUMMARY

With the foregoing discussion and examples in mind it might be well to summarize the Confusion Technique as a play on words or communications of some sort that introduces progressively an element of confusion into the question of what is meant, thereby leading to an inhibition of responses called for but not allowed to be manifested and hence to an accumulating need to respond. It is reminiscent of the childhood word games such as "If it isn't *not raining*, then it *is raining*," or "I am *here* and you are not *here* and New York

is *not here*, so you must be in New York because you are *there*, not *here*, and New York is *there*, not *here*."

Starting with these elementary ideas, the author has added to the play on words the modification of seemingly contradictory, irrelevant, or unrelated concepts, non sequiturs, and ideas, variously communicated, and each of which *out of context* is a simple, reasonable assertion, meaningful and complete in itself. *In context* such communications are given in a meaningfully emphatic manner along with valid, meaningful ideas, and thus the whole becomes a medley of seemingly valid and somehow related ideas that leads the subjects to try to combine them into a single totality of significance conducive to a response—literally compelling a response. But the rapidity of the communications inhibits any true understanding, thereby precluding responses and resulting in a state of confusion and frustration. This compels a need for some clear and understandable idea. As this state develops, one offers a clearly definite, easily comprehensible idea which is seized upon immediately and serves to arouse certain associations in the subjects' minds. The medley is then continued, and another comprehensible idea is offered, enhancing the associations of the previous clear understanding. And in the process one throws in irrelevancies and non sequiturs as if of pertinent value, thereby enhancing the confusion. This sort of thing constitutes in certain situations a form of humor such as in the case of the childish riddle of "Two ducks in front of a duck, two ducks behind a duck, and one duck in the middle. How many ducks are there?" Even those of my playmates on whom I tried this and who knew the answer to be three ducks would find themselves hopelessly bewildered when I would add with earnest helpfulness, "Of course you must remember they were beside the *left-hand door*." And for those who did not know the answer and who were struggling with the two and two and one, the *left-hand door* often constituted an insuperable barrier to a responsive reply as a result of a natural tendency to fit that irrelevancy into the problem.

However, a Confusion Technique is sometimes most difficult for some users of hypnosis, and they find much difficulty in attempting it for either experimental or clinical work. Nevertheless it does have significant values for those who cannot use it in a hypnotic setting, since repeated efforts to devise and deliver a Confusion Technique for the sake of practice only will soon teach the user of more conventionalized, ritualistic, traditional, verbalized techniques a greater fluency in speech, a freedom from rote suggestions, a better understanding of the meaning of suggestions, and a greater ease in shifting one's own patterns of behavior in response to observed changes in the patients, and in shifting from one set of ideas to another. In repeated experience teaching hypnosis to medical and psychological students and residents in psychiatry, the assignment of the task of devising and analyzing a Confusion Technique aided them greatly in learning traditional verbalization techniques, even those who never could seem to learn to use a Confusion Technique spontaneously or intentionally in a hypnotic situation.

Thus the Confusion Technique is a presentation of ideas and understandings conducive of mental activity and response but so intermingled with seemingly related, valid but actually nonpertinent communications that responses are inhibited, frustration and uncertainty of mind engendered. The culmination occurs in a final suggestion permitting

a ready and easy response satisfying to the subjects and validated by each subject's own, though perhaps unrecognized, on a conscious level, experiential learnings.

# **The Dynamics of Visualization, Levitation and Confusion in Trance Induction**

Milton H. Erickson

Unpublished fragment, circa 1940s.

Hypnotic techniques are no more than methods of communicating suggestions and ideas. In themselves they are of no particular significance. It is only the responses and the behavior that they stimulate the subject to make that have any value. Hence in describing a technique a primary consideration should not be a slavish presentation of verbalizations, but an effort to indicate the purposes to be served. Unfortunately the general tendency is to attach labels to a technique and then to use it in accord with the sometimes meaningless label.

## **VISUALIZATION APPROACHES**

For example, an excellent visualization approach has been labeled The House-Tree-Man Technique. This designation much more properly should be An Example of Visual Imagery Technique, or A Technique Based upon Visual Imagery, or Visual Imagery as a technique. As a technique The House-Tree-Man differs in no significant way from The Garden-Woman-Sundial or The Schoolhouse-Teacher-Pupil-Desk-Blackboard-Chalk Technique. The essential consideration is to evoke visual images related to experiential learnings and thus to initiate within the subjects, apart from externalities, a progressive series of responsive reactions that can develop into a trance. It is of utterly no importance that a house, a tree, or a man be mentioned to use the "House-Tree-Man" technique. The only important purpose in this technique is the initiation and utilization of the processes of visualization, and the objects to be employed as visual images should be selected in relationship to the subjects, not to some printed page. The basic approach is to orient all hypnotic techniques about the subjects, who are the responsive components of the situation.

## **HAND LEVITATION APPROACHES**

To cite another example, in the development and the teaching of the "hand levitation technique" this writer has endeavored to make clear and to emphasize that the technique is one in which the subjects overtly participate at a motor level—that it is a participatory technique involving motor activity. The term "hand levitation" is employed for several reasons.

The hand is employed for the reason that in the passively expectant state of the subjects, the idea of motor activity is easily related to the subjects' hand without disturbing their

general physical inactivity. The subjects have a lifetime of experience of hand movement while the body is at rest.

It matters not which hand is levitated, yet uncritical, overenthusiastic innovators have attempted to develop as refinements separate techniques for levitation of the right, the left, of both simultaneously and alternately, and of the right index finger, the left index finger, etc., overlooking entirely that it is the motor activity and not the body part that is important. The body part is important only when it serves some other and specific purpose directly related to its use, as in finger signaling, for example, or in answering by gesture.

The term "levitation" is employed to signify primarily the subjective character of the motor activity and not the direction of the movement. It is the subjective sensation of lightness, of free, involuntary, or consciously effortless motor activity that is the primary consideration, not the direction of the movement. Hence the "levitation" may be upward or downward, horizontal or rotary. It is not even essential that there be actual movement since *it is the subjective sensation of involuntary or consciously effortless movement that is desired and not movement through linear space*. Hence the term "hand levitation" is properly used to present in an easily comprehensible form the suggestion of movement of a body part, any body part, of a special subjective quality.

## **CONFUSION APPROACHES**

In a somewhat similar fashion many other techniques need to be discussed for their essential significance. For example, the "confusion technique" much mentioned, never really described in the literature, actually used more frequently than it is recognized, and regarded as rather involved and bewildering, is actually a relatively simple procedure. It is usually a verbal technique, but nonverbal elements can easily be added to it and even made the major part of the technique.

Defined simply, a "confusion technique" is one based upon the presentation to the subjects of a series of seemingly only loosely related ideas actually based upon a significant thread of continuity not readily recognized, leading to an increasing divergence of associations, interspersed with an emphasis on the obvious, *all of which preclude subjects from developing any one train of associations, yet stirs them increasingly to a need to do something until they are ready to accept the first clear-cut definitive suggestion offered*. As stated, the technique may be purely verbal or an admixture of verbal and nonverbal elements; both may be used as rapid or slow inductions, depending upon the situation and the purposes to be served.

For example, in a lecture before the professional staff of a V.A. hospital, a student nurse was pressured by her superior to volunteer as a subject. Fortunately she was interested in being a subject, but she disliked being told to act as one. Advantage was taken of this emotional setting to use a confusion technique primarily nonverbal in character to secure in the subject, who had neither witnessed nor experienced hypnosis previously, a deep trance in a minimum of time.

As she approached the front of the lecture room from a side aisle, a chair was moved somewhat ostentatiously into place for her. When she was within six feet of the chair, she was asked, "Will you sit in *this* chair *here*?" As the word "this" was spoken, the writer's left hand was carefully placed on the back of that chair, as if to point it out. As the word "here" was spoken, the writer gestured with his right hand, as if indicating a chair to the side of the actual chair. There was a momentary pause in her behavior, but as she continued her approach, the chair was pushed slightly toward her, causing a slight noise as it scraped on the floor. This was readily audible. As she came still closer to the chair, it was pulled slightly to one side away from her, and immediately as she seemed to note this, it was pushed back an inch or so, and then another inch or so forward and to the side toward her. All of this she noted because the writer's left hand on the back of the chair constituted a focusing point.

By this time she had reached the chair, had turned slightly, and had begun to lower her body into it. As soon as her knees were bent, the chair was rotated about one inch, and as she paused again momentarily to look at the chair, the writer took hold of her right elbow and moved it away from her body slightly and then slightly forward. As she turned to look in response to this, her elbow was released and her right hand and wrist were gently taken and moved slightly upward and then downward. As she shifted her gaze from her elbow to her hand, she was told quietly, "Just sit all the way down in the chair, and as you do so just close your eyes and go 'way deeply into the trance, and as you continue to sit there, sleep ever more deeply in a hypnotic trance."

As she settled in the chair, the additional statement was made, "And now you can take a deep comfortable breath while I go on with my lecture." Thereupon, without further delay or training she was immediately employed to demonstrate somnambulistic trance and all the other phenomena of the deep trance. She was awakened approximately one hour later, and demonstrated spontaneously a total amnesia by stating, "But you've got me so confused I don't know what to do. Is it all right to sit this way, and what do you want me to do with my hand?"

Reply was made, "Would you like to go into a trance?"

She answered, "I don't really know. I'm not sure. I don't even know if I can be hypnotized. I suppose maybe I could. I'm willing to try if you want me to." She was asked what she meant by saying that she was confused.

"Well, when I started to come up here, you asked me to sit in this chair, and then you started moving it first one way and then another, and then somehow you started to move my arm, and before I knew what you wanted, you started on my hand and I'm still confused. What do you want me to do?"

In this last question the subject defines adequately the goal of a confusion technique, the pressing need to have a definite, easily comprehended understanding of what is wanted. In the distressing state of confusion developed, whether by verbal or nonverbal or

combined methods, the subject is more than ready to accept and react to the first simple idea suggested that will end the confusion. In this instance she accepted at once the suggestions, "Sit down all the way," "close your eyes," and "sleep deeply." It was, indeed, a relief to do so. In rousing from the trance, she reverted to the state of conscious bewilderment that had been interrupted by a rapid development of the deep trance.

To summarize this example, a train of physical activity was initiated in this subject. As she followed along in its development, first one and then another nonverbal suggestion of a motor type was offered just long enough to permit her to become aware of it, but before she could respond another had taken its place. Each suggestion in itself was acceptable, but each time she was precluded from a response although a need to respond was being increasingly developed. Furthermore, each new suggestion was a compound of contradictory significances (that is forward and backward or left and right) which compelled a need to select from these multiple choices which were repeatedly varied. When it was felt clinically that the subject had reached a psychological point at which she was ready to put into action her rising need for a response, a direct, simple statement was given her.

In a single sentence, we may define a confusion technique as one in which a series of interrelated acceptable stimuli ordinarily leading to responsive action are given in such fashion that response is inhibited until the subject, in cumulative fashion, makes a massive response to the first clear-cut definitive idea presented.

In the example cited, had the subject not yet been ready to develop a trance state, the writer could easily have continued by shifting attention from the right hand to the left, thence to the right elbow and then the left knee, in preference to any manipulation of objects about her. The reason is that one would want to build up increasingly within the subject a need to respond within the self.

## **Another Example of Confusion in Trance Induction**

Milton H. Erickson

As told to the Ernest L. Rossi in 1976.

On one occasion Erickson was lecturing to a group of doctors about hypnosis. He was interrupted when another doctor brought in two women volunteers who were interested in experiencing hypnosis and introduced them to Erickson. In the following he describes the situation as he understood it.

*E:* I began by telling them that they really didn't know anything about me but I had at least an average education; I'd gone to grade school; I'd lectured to doctors; I had learned to count, I could count to twenty easily; I could count to twenty by one, by twos, fours, fives, or tens; I could write my name. I told them a sheer bunch of nonsense along with that important statement about counting to twenty in different ways. And then I said, "Now, of course, whenever I count to twenty, you can go into a hypnotic trance." They just looked at me and I continued with my nonsensical discussion of irrelevant facts about myself. I liked corned beef, I liked golden-eyed trout, etc. Then I looked at them significantly and said, "I had four boys and four girls—that makes eight. They really come cheaper by the dozen, you know." With that they both went into a trance. Eight and twelve is twenty. The women came in expecting to go into a trance. They just didn't know what a trance induction was, so I started the nonsense discussion in which I talked about my education and counting to twenty; telling them that when I came to twenty they would go into a trance—then slipping in the statement, four boys, four girls—they come cheaper by the dozen; four plus four plus twelve equal twenty. I had earlier said that I could count to twenty in any fashion, and when I come to twenty you go into a trance. They went into a trance just that quickly. All that nonsense was not really nonsense; it was a confusion procedure. While they tried desperately to make sense out of all of that nonsense I was telling them (because it is nonsensical for somebody lecturing to a group of doctors to talk in that fashion), they probably asked themselves, "Why is he talking in that fashion? Why is he saying that? Why is he telling that to us?" They tried desperately to make some meaning out of it, and the first possible meaning to it was four plus four plus twelve, and as soon as they put that meaning on it, they went into a trance. Nice demonstration of confusion technique and of subjects struggling to put a meaning upon what you say and your awareness that the subjects are going to put a meaning upon what you say. Give them plenty and let them select.

# **An Hypnotic Technique for Resistant Patients: the Patient, the Technique, and its Rationale and Field Experiments**

Milton H. Erickson

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There are many types of difficult patients who seek psychotherapy and yet are openly hostile, antagonistic, resistant, defensive, and present every appearance of being unwilling to accept the therapy they have come to seek. This adverse attitude is part and parcel of their reason for seeking therapy; it is the manifestation of their neurotic attitude against the acceptance of therapy and their uncertainties about their loss of their defenses and hence it is a part of their symptomatology. Therefore this attitude should be respected rather than regarded as an active and deliberate or even unconscious intention to oppose the therapist. Such resistance should be openly accepted, in fact graciously accepted, since it is a vitally important communication of a part of their problems and often can be used as an opening into their defenses. This is something that the patients do not realize; rather, they may be distressed emotionally since they often interpret their behavior as uncontrollable, unpleasant, and uncooperative rather than as an informative exposition of certain of their important needs.

The therapist who is aware of this, particularly if well skilled in hypnotherapy, can easily and often quickly transform these overt, seemingly uncooperative forms of behavior into a good rapport, a feeling of being understood, and an attitude of hopeful expectancy of successfully achieving the goals being sought.

Usually these patients have consulted more than one therapist, have encountered failures of treatment, and their difficulties have grown worse. This fact alone warrants increased concern and care in meeting their needs, particularly if it is appreciated that such a seemingly unfriendly beginning of the therapeutic relationship often actually augurs well for a more speedy therapeutic course if met comfortably and easily as a symptom and not as a defense.

Hence the therapist aids the patients to express quickly and freely their unpleasant feelings and attitudes, encouraging the patients by open receptiveness and attentiveness, and by the therapist's willingness to comment appropriately in a manner to elicit their feelings fully in the initial session.

Perhaps this can be illustrated by the somewhat extreme example of a new patient whose opening statement as he entered the office characterized all psychiatrists as being best described by a commonly used profane vulgarity. The immediate reply was made, "You

undoubtedly have a damn good reason for saying *that and even more.*" The italicized words were not recognized by the patient as a direct intentional suggestion to be more communicative, but they were most effective. With much profanity and obscenity, with bitterness and resentment, and with contempt and hostility he related his unfortunate, unsuccessful, repeated, and often prolonged futile efforts to secure psychotherapy. When he paused, the simple comment was made casually, "Well, you must have had a hell of a good reason to *seek therapy from me.*" (This was a definition of his visit unrecognized by him.)

Again the italicized words were no more than part of a seemingly wondering comment spoken in his own type of language. He did not recognize that a therapeutic situation was being defined to him, despite his response of, "Don't worry, I'm not going to develop a positive transference or [unprintable words] on you. I'm going to pay you good money to do a job on me, get it? I don't like you, I know a lot of people that don't like you. The only reason I'm here is I've read a lot of your publications and I figure you can handle a disagreeable, fault-finding, uncooperative [unprintable words] who is going to resist every damn thing you try to do for me. That's something I can't help, so either tell me to get the hell out of here or to shut up, and you get down to business, but don't try psychoanalysis. I've had all that baloney I can take. Hypnotize me, only I know you can't in spite of your writings. So, get a move on!"

The reply was made in a casual tone of voice and with a smile, "O.K., shut up, sit down, keep your damn mouth shut and listen; and get it straight, I am going to *get a move on* [using the words of the patient's own request], *but I move just as slow or as fast as I damn please.*" My terms for the acceptance of his request for therapy were phrased in his own language, though said casually and in a voice free from any unpleasant intonations and inflections. Thus the patient is told effectively vitally important matters in the italicized words without his conscious recognition of the fact.

The patient seated himself and glared silently and belligerently at the author. He did not realize that he was thereby committing himself to a therapeutic situation. Instead he misunderstood his behavior as uncooperative defiance. With his attention and understandings thus fixated and centered a hypnotic technique was used that has been worked out over the years with the unintentional aid of many difficult, resistive, uncooperative patients and by much speculation upon how to transform their own utterances into vitally important suggestions effectively guiding their behavior, although without such recognition by them at the time.

### **THE TECHNIQUE AND ITS RATIONALE**

The technique, to be given in detail shortly, which is used sometimes almost verbatim, can be shortened or made longer by repetitions and elaborations all in accord with the patient's capacities to understand and to respond. It is advantageous to modify it to include the patient's own style of speech, whether abrupt, impolite, or even outrageously profane. However, the author, in his use of it, usually discontinues very rapidly the discourtesies of the patient's own type of language, but he is likely to continue any

ungrammatical constructions that may be characteristic of the patient's speech. Thus the patient's violence (linguistically expressed) is unnoticeably discarded and the patient and the therapist arrive at a safe, pleasant linguistic level familiar in form to the patient. The patient does not know how this happened nor does he often sense that it is happening because of its indirectness; nor is there any reason for the patient to be led to understand the techniques and levels of communication, any more than does the surgical patient need to have a full comprehension of the surgical techniques to be employed.

When sufficient material has been obtained from the aggressive, hostile, antagonistic, defensive, uncooperative patients to appraise their unfortunate behavior and attitudes and to judge their type of personalities, they are interrupted by an introductory paragraph of mixed positive and negative, seemingly appropriate and relevant remarks addressed to them in that form of language they can best understand at that moment. However, concealed and disguised in these remarks are various direct, indirect, and permissive suggestions intended to channel their reactions into receptive and responsive behavior.

For the patient cited above as an example, he was told, "I do not know whether or not you are going into a trance as you have asked." (One needs to scrutinize well this sentence to recognize all the positive and negatives, something not possible when listening to it.) With this introductory remark to this specific patient utilization was then made of the following technique, which is actually no more than a casual, not necessarily grammatical, explanation loaded with direct and indirect permissive suggestions and instructions but not easily recognizable as such. Hence these will, in large part, be italicized to enable more easy recognition. Parenthetical inserts or explanatory paragraphs are for clarification for the reader only, and were of course not part of the verbalized technique.

"You have come for therapy, you have requested hypnosis, and the history you have given of your problem leads me to believe strongly that hypnosis will help you. However, you state more convincingly that you are a resistant hypnotic subject, that others have failed despite prolonged efforts to induce a trance, that various techniques have been of no avail, and that reputable men have discredited hypnosis for you and as a therapeutic aid in itself. You have frankly expressed your conviction that I cannot induce a trance in you, and with equal frankness you have stated that you are convinced that you will resist all attempts at hypnosis and that this resistance will be despite your earnest desire and effort to cooperate." [To resist hypnosis one recognizes its existence, since there can be no resistance to the nonexistent and its existence implies its possibility. Thus the question becomes not one of the reality or value of hypnosis, but simply a question of his resistance to it. Thereby the ground is laid for the use of hypnosis but with his attention directed to his understanding of resistance to it. Hence hypnotic induction is rendered a possibility by any induction technique not recognizable to him.]

*"Since you have come for therapy and you state that you are a fault-finding, uncooperative patient, let me explain some things before we begin. So that I can have your attention, just sit with your feet flat on the floor with your hands on your thighs, just*

*don't let your hands touch each other in any way.*" [This is the first intimation that more is being communicated than the ear hears.]

"Now so that *you will sit still* while I talk, just look at that paperweight, just an ordinary handy thing. By looking at it you will hold your eyes still, and that will hold your head still and that will hold your ears still, and *it's your ears I'm talking to.* [This is the first intimation of dissociation.] No, don't look at me, just at the paperweight, because I want your ears still and you move them when you turn to look at me. [Most patients tend at first to shift their glance, so eye-fixation is effected by a request not to move the ears, and rarely does it become necessary to repeat this simple request more than three times.] Now when you came into this room, you brought into it *both of your minds*, that is, the front of your mind and the back of your mind. ["Conscious mind" and "unconscious mind" can be used, depending upon the educational level, and thus a second intimation is given of dissociation.] Now, I really don't care if you listen to me with your conscious mind, because it *doesn't understand your problem* anyway, or you wouldn't be here, so *I just want to talk to your unconscious mind* because it's here and close enough to hear me, so you can let your conscious mind listen to the street noises or the planes overhead or the typing in the next room. Or you can think about any thoughts that come into your conscious mind, systematic thoughts, random thoughts because *all I want to do is to talk to your unconscious mind, and it will listen to me* because it is within hearing distance even if *your conscious mind does get bored* [boredom leads to distinterest, distraction, even sleep]. If your eyes get tired, it will be all right to close them but be sure to keep a good alert [a disarming word so far as any assumed threat of hypnosis is concerned], *a really good mental or visual image alertly* in your mind [an unrecognizable instruction to develop possible ideosensory visual phenomena while the word "alertly" reassures against hypnosis]. *Just be comfortable while I am talking to your unconscious mind, since I don't care what your conscious mind does.* [This is an unrecognizable dismissal of his conscious attention following immediately upon a suggestion of comfort and communication with only his unconscious mind.]

"Now before *therapy can be done*, I want to be sure that you realize that *your problems just aren't really understood by you* but that *you can learn to understand them with your unconscious mind.* [This is an indirect assertion that therapy can be achieved and how it can be done with more emphasis upon dissociation.]

"Something everybody knows is that people can communicate verbally ["talk by words" if warranted by low educational or intelligence level] or by sign language. The commonest sign language, of course, is when you *nod your head yes or no.* Anybody can do that. One can signal 'come' with the forefinger, or wave 'bye-bye' with the hand. The finger signal in a way means 'yes, come here,' and waving the hands means really 'no, don't stay.' In other words one can use the head, the finger, or the hand to mean either yes or no. We all do it. *So can you.* Sometimes when we listen to a person we may be *nodding or shaking the head not knowing it* in either agreement or disagreement. *It would be just as easy to do it with the finger or the hand.* Now I would like to ask your unconscious mind a question that can be answered with a simple yes or no. It's a question that *only your unconscious mind can answer.* Neither your conscious mind nor my

conscious mind, nor, for that matter, even my unconscious mind knows the answers. *Only your unconscious mind knows which answer can be communicated, and it will have to think either a yes or a no answer. It could be by a nod or a shake of the head, a lifting of the index finger—let us say the right index finger for the yes answer, the left index for a no since that is usually the case for the right-handed person and vice versa for the left-handed person. Or the right hand could lift or the left hand could lift. But only your unconscious mind knows what the answer will be when I ask for that yes or no answer.* And not even your unconscious mind will know, when the question is asked, *whether it will answer with a head movement, or a finger movement, and your unconscious mind will have to think through that question and to decide, after it has formulated its own answer, just how it will answer.* [All of this explanation is essentially a series of suggestions so worded that responsive ideomotor behavior is made contingent upon an inevitable occurrence—namely, that the subject “will have to think” and “to decide” without there being an actual request for ideomotor responses. The implication only is there, and implications are difficult to resist.]

“Hence in *this difficult situation in which we find ourselves* [this establishes a “relatedness” to the patient] we will both have to sit back and *wait and wait* [participatory behavior] *for your unconscious mind to think the question through, to formulate its answer, then to decide*, whether by head, finger, or hand, *to let the answer happen.*” [This is a second statement of suggestions and instructions in the guise of an explanation. Seemingly the subject has been asked to do nothing, but actually he is directly told to be passive and to permit an ideomotor response to occur at an unconscious level of awareness signifying an answer that he has been told carefully to “let happen” as another and definitive contingent result of mental processes. In all of this procedure there have been implied or indirect suggestions given that the conscious mind will be unaware of unconscious mental activity, in essence that he will develop an anamnestic trance state.]

“In other words I will ask a question to which *only your unconscious mind can give the answer*, and concerning which your conscious mind can only guess if it does at all; maybe correctly, maybe wrongly, or maybe have only some kind of an opinion, but, if so, only an opinion, *not an answer.* [Thus a lessening of importance of his conscious thinking not recognizable to him, and a further implication of a trance state.]

“Before I ask that question, I would like to suggest two possibilities. (1) Your conscious mind might want to know the answer. (2) Your unconscious mind *might not* want you to know the answer. My feeling, and I think you will agree, is that you came here for therapy for reasons *out of the reach of your conscious mind.* Therefore I think that we should approach this matter of the question I am going to put to your unconscious mind for *its own answer* in such a way that *your own deep unconscious wishes to withhold the answer or to share the answer with your conscious mind are adequately protected and respected.* This, to me, is a fair and equitable way in dealing with one’s self and one’s problems. [This is what he knows he wants from others, but has not quite recognized that he wants fair and equitable treatment from himself.]

“Now, to meet your needs, I am going to ask that yes or no question, and *be prepared to be pleased to let your unconscious mind answer* [this is an unrecognized authoritative suggestion with a foregone conclusion permissively stated], and in doing so either to share the answer with your conscious mind *or to withhold it, whatever your unconscious mind thinks to be the better course*. The essential thing, of course, *is the answer, not the sharing nor the withholding*. This is because any withholding will actually be only for the immediate present, *since the therapeutic gains you will make* [also an unrecognized authoritative statement given in the guise of an explanation] will eventually disclose the answer to *you at the time your unconscious mind regards as most suitable and helpful to you*. *Thus you can look forward to knowing the answer sooner or later, and your conscious desires, as well as your unconscious desires, are the seeking of therapy and the meeting of your needs in the right way at the right time.* [This is a definitive suggestion given as an explanation and a most emphatic positive suggestion.]

“Now how shall this question be answered? By speech? Hardly! You would have to verbalize and also to hear. Thus there could then be no *fair dealing* [socially and personally potent demanding words] with your unconscious mind if it wished, for your welfare, to withhold the answer from your conscious mind. How then? Quite simply by a muscular movement *which you may or may not notice*, one that can be done at either a noticeable voluntary level or *one that is done involuntarily and without being noticed*, just as you can nod your head or shake it without noticing it when you agree or disagree with a speaker, or frown when you think you are just trying to call something to mind.

“What shall that muscle movement be? I think it would be better to mention several possibilities [simply “think” or “mention,” apparently not demanding, ordering, or suggesting], but before doing so let me describe the difference between a conscious mind muscle response and that of the unconscious mind. [Muscle response is mentioned while his attention is being fixated; a maneuver to maintain that attention for the future introduction of related but delaying material. The reader will note the previous use of this psychological gambit of mentioning a topic and then entering into a preliminary explanation.] The conscious mind response cannot be withheld from you. You know it at once. You accept it and you believe it, perhaps reluctantly. There is no delay to it. It springs to your mind at once, and you promptly make the response.

“An unconscious mind response is different, because *you do not know what it is to be*. *You have to wait for it to happen*, and consciously you cannot know whether it will be ‘yes’ or ‘no.’ [How can a muscle movement be a ‘yes’ or a ‘no’? The patient has to listen intently for some reasonable explanation.] *It does not need to be in accord with the conscious answer* that can be present simultaneously in accord with your conscious mind’s thinking. *You will have to wait*, and perhaps wait and wait, *to let it happen. And it will happen in its own time and at its own speed.* [This is an authoritative command but sounds like an explanation, and it provides time for behavior other than conscious, in itself a compelling force. Additionally one never tells the patient that an unconscious reply is almost always characterized by a strong element of perseveration. Apparently an altered time sense in hypnotic subjects, possibly deriving from their altered reality relationships, prevents even experienced subjects from appreciating this point, and it

constitutes an excellent criterion of the character of the response. This perseveration of ideomotor activity, however, is much briefer in duration if the unconscious mind wishes the conscious mind to know; the time lag and the dissociated character are greatly reduced, although the unconscious answer may be considerably delayed as the unconscious mind goes through the process of formulating its reply and the decision to share or not to share. If the patient closes his eyes spontaneously, one can be almost certain that the reply given will be spontaneously withheld from the patient's conscious awareness. When the answer is "shared," especially if the conscious opinion is opposite in character, the patient shows amazement and sometimes unwillingly admits to the self an awareness or strong feeling that the unconscious answer is unquestionably correct, thereby intensifying his hypnotic response. A repetition for comparison by asking another simple question can be elicited by the operator by careful wording of a question such as, "But you *can* withhold an answer, can you not?" doing this so casually that the patient does not realize that a second question has been asked. Thus there can be secured a second ideomotor response that is withheld from, or not noticed by, the conscious awareness. Insuring that the patient learns both to share unconscious activity and to withhold it from conscious awareness greatly speeds psychotherapy. Thus I have had a resistant patient, in reply to my question, consciously and promptly shake his head in the negative, briefly and emphatically, and then sit wonderingly at my apparent tardiness of response to his reply, not knowing that I was waiting silently to see if there would occur a slow head turning in a perseverative way from left to right, or an up and down nodding. Experimenting with such patients has disclosed such perseverative movements, particularly of the head, that may last as long as five minutes without the patient becoming aware of what was occurring. Once the patient is in a trance, the ideomotor response can then be as rapid as movement in the ordinary state of awareness, although in general there is a cataleptic character that is most informative of the patient's hypnotic state. This is another criterion for the operator's guidance, unrecognized by the subject.]

"Now what shall the movement be?" Most people nod or shake their head for a 'yes' or a 'no,' and the question I am going to ask is that kind of a question, one requiring either a simple 'yes' or a simple 'no.' Other people like to signal by an upward movement of the index fingers, one meaning 'yes,' the other 'no.' I usually, as do most people [the phrases "I usually" and "most people" indicate that *naturally it is to be expected of both of us that behavior common to most people will occur*] like to use the right index finger for 'yes' and the left for 'no,' but it is often the other way around for left-handed people. [Let there be no hint of arbitrary demands, since the patient is resistant and this suggestion is one of freedom of response, even though an illusory freedom.] Then again some people have expressive hands and can easily, voluntarily or involuntarily, move their right hand up to signify 'yes' or the left to signify 'no.' ["Expressive hands" is only an implied compliment, but most appealing to any narcissism. Indeed it is not at all uncommon for a person to beckon with a finger or to admonish with a finger or a hand.]

"I do not know if your unconscious mind wants your conscious mind to look at some object or to pay attention to your head or fingers or hands. Perhaps you might like to watch your hands, and if your eyes blur as you watch them fixedly while you wait to see which one will move when I ask my simple question, such blurring is comprehensible. It

only means that your hands are close to you and that you are looking at them intently.” [Even if the patient’s eyes are closed, this paragraph can be used unconcernedly. In its essence it is highly suggestive of a number of things, but unobtrusively so. Actually the sole purpose of these purported and repetitious explanations is merely to offer or to repeat various suggestions and instructions without seemingly doing so. Also a variety of possibilities is offered, essentially as an indirect double bind, which renders a refusal to make a response most difficult. All of the items of behavior are being suggested in such fashion that seemingly all the patient does is to manifest his choice, but he has actually *not been asked* to make a choice of the possibilities merely mentioned to him. He is not aware of what else is being said or implied. The author’s personal preference is an ideomotor head movement, which can easily be achieved without conscious awareness, but regardless of the type of movement employed by the patient, the author immediately shifts to a second type of ideomotor response and perhaps to a third to intensify the patient’s total responsiveness. The hand movement offers certain distinct advantages in that it lends itself readily to the elicitation of other phenomena, as will be described later.]

“Now [at long last, and the patient’s eagerness is at a high point] we come to the question! I do not need to know what is to be your choice of the movements to be made. You have your head on your neck and your fingers are on your hands and you can let your hands rest comfortably on your thighs or on the arms of the chair. *The important thing is to be comfortable while awaiting your unconscious answer.* [In some way comfort and the unconscious answer become unrecognizedly contingent upon each other, and the patient naturally wants comfort. Equally naturally he has some degree of curiosity about his “unconscious answer. “ Also, another delaying preliminary explanation is being given.] Now you are in a position for any one or all of the possible movements [an unrecognized authoritative suggestion]. As for the question I am to ask, that, too, is not really important. What is important is *what your unconscious mind thinks, and what it does think neither you nor I consciously know. But your unconscious does know since it does do its own thinking but not always in accord with your conscious thoughts.*”

“Since you have asked me to induce a trance, I could ask a question related to your request, but I would rather ask a simpler one [a possible threat of hypnosis removed]. Hence let us [we are working together] ask a question so general that it can be answered by any one of the various muscle ways described. Now here is the question to which I want you to listen carefully, and then to wait patiently to see, or perhaps not to see, what your unconscious answer is. [After so much apparently plausible delay, the patient’s attention is now most fixed, he is, so to speak, “all ears” in his desire to know the question, and such desire has to have an unrecognized basis of acceptance of the idea that his unconscious mind will answer.] My question is [said slowly, intently, gravely], Does your unconscious mind think it will raise your hand or your finger or move your head?” [Three possibilities, hence the conscious mind cannot know.] “Just wait patiently, wonderingly, and let the answer happen.”

What the patient does not know and has no way of realizing is that he is being communicated with on two levels, that he is in a double or triple bind. He cannot deny that his unconscious mind can think. He is inescapably bound by that word “think. “*Any*

*ideomotor or nonvolitional movement, whether positive or negative, is a direct communication from his unconscious mind* (but his thinking does not extend to that realization). If slowly his head shakes “no,” my gentle lifting of either his “yes” or “no” hand will result in catalepsy. This cataleptic response is also hypnotic; it is one of the phenomena of hypnosis. I can then ask him to be more comfortable, and if his eyes are open, I add, “perhaps by closing your eyes, *taking a deep breath, and feeling pleased that your unconscious mind is free to communicate to me as it wishes.*”

Thus without his awareness and before he has time to analyze the fact, he is communicating at the level of the unconscious mind, thereby literally going into a trance despite his previous conscious conviction that he would inevitably defeat his own wishes to be hypnotized. In other words his resistances have been bypassed by making hypnotic responses contingent upon his thought processes in response to seemingly nonhypnotic discussion of various items, and his false belief that he cannot be hypnotized is nullified by a pleasing unconscious awareness that he can cooperate. If he becomes aware that he is responding with ideomotor activity, he is bound to recognize that his unconscious mind has charge of the situation. This places him in another double bind, that of being in the position of letting his unconscious mind “share” with his conscious mind whatever it wishes, which as a further double bind will commit him quite unwittingly also to let his unconscious mind *withhold* from his conscious mind, with a consequent hypnotic amnesia at the conscious level. Thus with no seeming effort at trance induction as the patient understands it, a trance state has been induced.

Fortunately for both the operator and the patient the elicitation of a single hypnotic phenomenon is often an excellent technique of trance induction, and should, for the patient’s benefit, be used more often. The realization of this was first reached in the summer of 1923 while attempting to experiment with automatic writing. To the author’s astonishment the subject, his sister Bertha, who had never before been hypnotized or seen hypnosis induced, developed a profound somnambulistic trance while suggestions were being made only to the effect that slowly, gradually, her right hand, holding a pencil on a pad of paper, would begin to quiver, to move, to make scrawling marks until her hand wrote letters, then words forming a sentence while she stared fixedly at the doorknob just to enable her body to sit still. The sentence, “Grandma’s dog likes eating those bones,” was written, and the author inquired what she meant and received the reply, while she pointed cataleptically toward the door, “See! He is eating that dishful of bones and he likes them.” Only then did the author realize that a trance had been unintentionally induced and that she was hallucinating visually what she had written, since Grandma’s dog was miles away. Many times thereafter automatic writing was used as an indirect technique of trance induction, but was discarded because writing is a systematic ordering of a special skill and hence is too time-consuming. A ouija board was next utilized, but this, while somewhat effective in inducing a trance indirectly, was discarded because of its connotations of the supernatural. Resort was then more reasonably made to the simple movements of the type made automatically, promptly, requiring no particular skill. At first a modification of automatic writing was employed, a modification spontaneously and independently developed by a number of different subjects—namely, the use of a vertical line to signify “yes,” a horizontal line to signify “no,” and an oblique line to

signify "I don't know." This has been described elsewhere by Erickson and Kubie (*Psychoanalytic Quarterly*, Oct. 1939, 8, 471-509). It has often proved a rapid indirect technique of trance induction.

Once an ideomotor response is made, without further delay it can be utilized immediately. For example, should the patient shake his head "no," his "yes" hand is gently lifted, and spontaneous catalepsy becomes manifest. Or if the "yes" finger makes an ideomotor response, the hand opposite is lifted to effect catalepsy; or the patient may be told that his head can agree with his finger. If his eyes are open (they often close spontaneously as the ideomotor activity begins), the simple suggestion can then be made that he can increase his physical comfort by relaxing comfortably, closing his eyes, resting pleasurabley, taking a deep breath, and *realizing with much satisfaction that his unconscious mind can communicate directly and adequately and is free to make whatever communication it wishes*, whether by sign language, verbally, or in both manners. He is urged to realize that there is no rush or hurry, that *his goals are to be accomplished satisfactorily rather than hurriedly, and that he can continue the unconscious mind communication indefinitely*. Thus the words "trance" or "hypnosis" are avoided, and yet a multitude of hypnotic and posthypnotic suggestions can be given in the form of a manifestation of interest in the patient's comfort, in explanations and in reassurances, all of which are worded to extend indefinitely into the future with the implied time limit of *goals satisfactorily reached*. (These italicized words are, in the situation, an actual double bind.) In this way a most extensive foundation is laid easily for good rapport, further trances, and rapid therapeutic progress, and usually this can be done within the first hour. In extraordinary cases the author has been forced by the patient to take as much as 15 hours, all spent by the patient in denouncing the author and the expected failure to result from the effort at treatment, with a good trance and therapeutic progress rapidly ensuing thereafter.

The use of this technique on the patient cited as an example above, whose intense, unhappy belligerency suggested its suitability, resulted in the development of a deep anamnestic trance employed to give posthypnotic suggestions governing future therapeutic hypnoanalytic sessions.

He was aroused from the trance by the simple expedient of remarking casually, as if there had been no intervening period of time, "Well, that is [note the present tense of the italicized word] some cussing that you have just been giving me." Thus the patient was subtly reoriented to the time at which he had been verbally assaulting me and accordingly he aroused "spontaneously" from his trance state, appearing much bewildered, checked the clock against his watch and the author's and then remarked in astonishment "I've been cussing you out for over 15 minutes, but a lot more than an hour has gone by! What happened to the rest of the time?" He was given the answer, "So you cussed me out about 15-20 minutes [a deliberate though minor expansion of his time statement], *and then you lost the rest of the time!* [Thus the patient is indirectly told he can lose.] Well, that is my cotton-picking business, and now that you know you can lose time, you ought to know you can lose some things you don't want to keep just as easily and unexpectedly. *So, get going, come back the same time next Friday, and pay the girl in the next room.* The

patient's own words were used but turned back upon him. Although these words were used originally in terms of starting therapy, they were now in relationship to the therapist instructing the patient about his part in the therapy. Also, since he had said that he was paying "good money" for therapy, by requesting immediate payment, he was unwittingly being committed to the idea that he was receiving that which he had so emphatically and impolitely demanded.

Upon his return on Friday he took his seat and asked in a puzzled but unduly tense voice, "Do I have to like you?" The implications of the question are obvious, the tension in his voice betokened alarm, and hence he had to be reassured with no possibility of his detecting any effort to reassure him. Accordingly the tone of the first meeting was reestablished safely by casually, comfortably stating, "Hell no, you damn fool, *we got work to do.*" The sigh of relief and the physical relaxation that followed this seemingly impolite and unprofessional reply attested to his need, and it easily shifted his attention to the purpose expressed in the italicized words and relieved him of an inner anxiety which was actually a probable threat to continuance of therapy.

As he relaxed the casual statement was made, "Just close your eyes, take a deep breath, and *now let's get at that work we got to do.*" By the time the author had finished this statement, the patient was in a profound somnambulistic trance, and thereafter merely sitting down in that chair induced a trance. When the therapist did not wish him to develop a trance, he was simply asked to sit in another chair.

At the fourth session (a trance) he asked, "Is it all right to like you?" He was told, "Next time you come, sit in the straightback chair and the question and answer will come to you." (Note sharing in the description of the technique.)

At the next session he "spontaneously" sat in the straightback chair, looked startled, and declared, "Hell yes, I can do any damn thing I want to." The reply was made, "Slow learner, huh?" To this he answered, "I'm doing O.K." and arose, sat in the regular chair and went into a trance. (He didn't want any "baloney" about a "transference" and its "resolution," but he could do "*any damn thing*" he "*wanted to do.*" Thus he recognized a certain emotional reaction, admitted it to himself, and then disposed of it by "going to work" and wasting no time in some laborious attempt at "analyzing his transference neurosis." Instead he was solely interested in what he had previously said in the word of "get going."

Therapy was less than 20 hours, each interview was highly productive with ever-increasing "sharing. " Ten years later he is still well-adjusted and a warm friend of the author, though our meetings are infrequent.

The technique described above has been used many times over a long period of years with minor variations. Various patients have contributed to its development by presenting opportunities for the author to introduce new suggestions and additional indirect communications and various types of double binds. As given above, it is in essence complete and has been extensively used in this form with only the modifications required

by the patient's own intelligence and attitudes. To write this paper old records were consulted, and the technique itself was written out first as a separate item. Then for this paper it was rewritten with parenthetical inserts and explanatory paragraphs for an exposition of the technique. In the field experiments that follow below, not originally even considered, the copy of the technique without inserts was employed to permit a smoother and easier use with those patients.

## **FIRST FIELD EXPERIMENT**

This paper had been typed in final form up to this point and it had been carefully reviewed that same evening. The next morning a most fortunate coincidence occurred. A new patient, 52 years old, a successful upper-social-class businessman, entered the office. He was shamefaced, embarrassed, and in apparently severe emotional distress. He pointedly looked at the state license to practice medicine in Arizona posted on the wall in accord with Arizona law, read the certificate from the American Board of Psychiatry and Neurology qualifying the author as a diplomate of that board, picked up the Directory of Medical Specialists from the dictionary stand, read the author's qualifications there, picked up the Psychological Directory and read the author's qualifications there, went to the bookcase and selected the books, *The Practical Applications of Medical and Dental Hypnosis and Time Distortion in Hypnosis*, pointed to the author's name on the dust jackets, and remarked caustically, "So you fool around with that stuff!" The author agreed casually but (to add further fuel to the patient's fire) added, "And just last night I finished writing a paper on hypnosis, and I am also the editor of *The American Journal of Clinical Hypnosis*." The reply was, "Yes, I've heard plenty about you being a crackpot, but I'm in trouble (noting that the author was writing down each of his statements, the patient spontaneously slowed his speech to accommodate the author's writing speed, but otherwise continued uninterrupted with his complaints), and I need help."

"And it's getting worse. It began about eight years ago. I'd be driving to work and I would go into a panic and would have to park the car at the curb. Maybe a half-hour later I could drive the rest of the way to the office. Not constantly, but slowly it increased in frequency until one day it changed. I couldn't park by the curb. I had to drive home. Sometimes it happened on my way home from the office and I'd have to drive back there. Then maybe after an hour, sometimes only a half-hour later, I could go to the office or home with no difficulty. My wife tried to drive me there to save me from these panic states. That just made things worse. I'd be sure to get a panic and yell at her to speed up. I tried taxicabs. That didn't work. The taximen thought I was off my rocker because I would suddenly yell at them to turn around and try to make them break the speed laws getting back home or getting back to the office. I tried a bus once and I thought I'd go crazy. The bus driver wouldn't let me off until he reached the next bus stop. I nearly killed myself running back home. It didn't happen every day at first, but it kept getting more frequent until three years ago it was every day I was late to the office and late back home. I had to take a lunch with me. I would get a panic going to or coming back from lunch."

"Three years ago I went into intensive therapy with Dr. X. He was trained in psychoanalysis at the Y Clinic for three years and had two years of controlled psychoanalysis himself. I saw him four or five times a week, an hour each time, for two and a half years, but I always had to allow about two hours to get there on time and then two more to get home. I didn't always need the time. I sometimes arrived way ahead of time, and sometimes I could leave on time. But I just continued to get worse. Then about six months ago the psychoanalyst put me on heavy dosages of tranquilizers because I had made no improvement; but he kept on analyzing me. The analysis didn't do any good. Some of the drugs would work for a week or even two, but then they would wear out. Most of them did nothing for me. Just name a tranquilizer; I've taken it. Pep pills! Sedatives! Extra analytic hours too. Then about a couple of months ago I tried whiskey. I never had done any drinking to speak of, but what a relief that whiskey was. I could take a drink in the morning, put in a day's work at the office, take a drink and go home feeling fine. With the tranquilizers that worked, I hadn't been able to do my office work, and even those that didn't work interfered with my office work terribly. I had had to take a simpler job. For one month I used two drinks of whiskey a day, one in the morning, one at quitting time, and everything was O.K. Then about a month ago I had to double the moaning dosage, then take some at noon, then a double dose to get home. Then I started on triple doses with extra single ones thrown in between times. My home is 20 minutes from here. It took three drinks to get me here, stiff ones. I came early so I would have to wait a couple of hours and sober up, and I sober up fast.

"Just after I began my psychoanalysis I heard and read about hypnosis and heard of you. The psychoanalyst told me frankly what a crackpot you are and that hypnosis is dangerous and useless, but even if you are a crackpot, I know that at least you have proper medical and psychiatric credentials. And no matter how dangerous and useless and stupid hypnosis is, it can't be as bad as alcohol. The whiskey I have to take each day now is turning me into an alcoholic."

"Well, you can't do any worse with hypnosis than what the alcohol is doing. I'm going to try to cooperate with you, but after all I have heard about hypnosis from my psychoanalyst, and all the published stuff denouncing it he gave me, I know nobody in his right mind is going to let himself be hypnotized. But at least you can try."

This account was given while the newly finished paper on hypnotic techniques for patients uncooperative for various reasons was on the desk in front of the author. This suggested an immediate experiment. It was simply that the patient allow the author to read aloud his newly written paper, not disclosing the intention to use it as a hypnotic-induction technique. The man disgustedly agreed to the request but refused to fixate his gaze on any object. He kept glancing about the room, would not place his hands on his thighs, but did place them on the arms of the chair.

Slowly, carefully, the technique was read almost verbatim, sometimes rereading parts of it as judged best by his facial expression.

Finally the patient began to look first at one hand and then the other. At last his gaze became fixated on the right hand. The left-index or “no” finger raised slightly, then the left middle finger. Then the right index finger with jerky, cogwheel movements began lifting in a perseverative fashion. His left index finger lowered, but the middle finger remained cataleptic. His head then began a perseverative affirmative nodding that lasted until he was interrupted by the induction of catalepsy in both hands. His eyes had closed spontaneously when the left index finger was lowered.

He was allowed to remain in the trance, and the technique was again slowly, emphatically read to him.

He was allowed to continue in the trance for an additional 30 minutes while the author left the room briefly, came back, checked on the continued maintenance of his cataleptic position, and then worked on this manuscript additionally.

Finally the patient was aroused from his apparently deep trance by reiteration of the remark about reading the manuscript. He aroused slowly, shifted his position, and again remarked that it (hypnosis) wasn’t any more harmful than alcohol. Suddenly he noticed the clock with a startled reaction and immediately checked it with his own watch and then the author’s. His startled comment was, “I came in here half an hour ago. The clock and our watches say I’ve been here over two hours—nearly two and a half. I’ve got to leave.”

He rushed out of the door, came rushing back, and asked how soon he could have another appointment as he shook the author’s hand. He was given an appointment for three days later and told, “Be sure to bring a full bottle of whiskey.” (He could not recognize the implications of this but he replied that he would, that the one in his hip pocket was nearly empty although it had been full that morning when he left the house.) He then departed from the waiting room, came back, and again shook hands with the author, stating simply that he had forgotten to say good-bye.

Three days later he entered the office smilingly, made a few casual remarks about current events, sat down comfortably in the chair, and offered a compliment on a paperweight. He was asked what had happened during the last three days. His eloquent reply was, “Well, I’ve been wondering about that problem I came to you about. I was pretty hot under the collar and I had plenty to say and I said it and you wrote it down word by word. I kept trying to figure out what it was costing me per word to let you take your time just writing it down. It irritated me quite strongly, and when I noticed I had been here two and a half hours just to let you write down verbatim what I had to say, I made up my mind that I would pay you for one hour only and let you argue about the rest. Then when you told me to bring a full bottle of whiskey the next time I came, I felt just as I did about those useless tranquilizers and I had half a mind not to come back. But after I got outside, I realized I was feeling unusually free from tension even though I was late for a business appointment, so I came back to say goodbye. [The reader will note that this is not the exact chronological sequence recorded above.] Then I forgot to take a drink in order to

drive to my appointment, maybe because I was irritated about your mention of a full bottle of whiskey.

"Then the next day before I knew it, I was at the office on time, felt fine, put in a good day's work, went out to lunch, and drove home. Same thing the next day. Then this morning I remembered I had an appointment with you today. I was still angry about that 'full bottle' you mentioned, but I got one out to put in my pocket. I took a small drink out of another bottle, but forgot to put the full bottle in my pocket. I suppose you will interpret that as resistance or defiance of authority. I say I intended to and simply forgot. I was on time at the office, put in a good day's work, but at noontime an old-time friend dropped in unexpectedly and I had a long lunch with him along with a bottle of beer. Then I went back to work and just managed to remember my appointment in time to get here. So it's beginning to look as if you might be able to help me if you get around to starting instead of just writing down what I say. That's what took so long last time. I didn't need that drink this morning, but I couldn't come to you under false pretenses so I took one. A cocktail at dinner is O.K., but a morning drink is just no good. Somehow I don't feel bad about your taking your time to write down everything I say. "

There was some casual discussion of current events, and the author offered the unexpected comment to the patient, "Well, let's see. You were once an editorial writer on a large metropolitan newspaper, and editorials are supposed to mold the opinions of the masses. Tell me, is the opinion molded in the conscious mind of the person; and what is your definition of the 'conscious mind' and the 'unconscious mind'?" He replied, "You don't go through two and a half years of psychoanalysis with wholehearted cooperation and then get brainwashed for another half-year with tranquilizers plus analysis, without learning a lot and losing a lot. All I can give you is an ordinary lay definition, namely, your conscious mind is the front of your mind and your unconscious mind is the back of your mind. But you probably know more about that than I do or Dr. X." He was asked, "And is it possible that ever the twain shall meet?" His answer was, "That's an odd question, but I think I get what you mean. I think that the unconscious mind can tell the conscious mind things, but I don't think the conscious mind can either tell the unconscious mind anything or even know what is in the unconscious. I spent plenty of time trying to excavate my unconscious mind with Dr. X and getting just nowhere, in fact getting worse." Another question was put to him, "Shall I discuss the conscious mind and the unconscious mind with you some time?" His answer was, "Well, if you keep on writing down everything I say and everything you say, and I have all the luck with my problem that I had when you spent the whole time just writing down my complaints the way you did last time—by the way, I had a wonderful afternoon playing golf yesterday with a client, first good game in years and no drinking either—well, go right ahead and discuss the conscious mind, the unconscious mind, politics, hypnosis, anything you wish."

He was asked why he had made that reply. His answer was, "Well, this is a bit embarrassing. I'm 52 years old and I am just bubbling over inside like a little boy, and the feeling is one I would call faith and expectancy, just like a little kid who is dead

certain he is going to have his most hopeful dreams about going to the circus fulfilled. Sounds silly, doesn't it, but I actually feel like a hopeful, happy, expectant little boy."

The reply was made by asking, "Do you remember the position you sat in in that chair?" Immediately he uncrossed his legs, dropped his hands on his lap, closed his eyes, slowly lowered his head, and was in a deep trance in a few moments' time.

The rest of the hour was spent in an "explanation of the importance of reordering the behavior patterns for tomorrow, the next day, the next week, the next year, in brief, of the future, in order to meet the satisfactory goals in life that are desired." This was all in vague generalities, seemingly explanations but actually cautious posthypnotic suggestions, intended to be interpreted by him to fit his needs.

He was aroused from the trance by remarking casually, "Yes, that is the way you sat in the chair last time," thereby effecting a reorientation to the time just previous to this second trance. As he aroused and opened his eyes, the author looked pointedly at the clock. The patient was again startled to find that time had passed so rapidly, asked for another appointment in three days but agreed to wait five days. On the way out of the reception room he paused to look at some wood carvings and commented that he was intending without delay to do some woodwork long postponed.

Five days later the man came in smilingly, sat down comfortably in his chair, and presented a conversational appearance. He was asked what had happened over the weekend and the other three days. His reply, given slowly and patiently as it was recorded by the author, was most informative.

"I've seen you twice. You haven't done a darn thing for me or my problem, and yet something is going on. I had trouble with my problem three times. I was going to the City A to dine with friends, my wife was in the front seat but I was driving. I felt the old panic coming on but I didn't let my wife know it. I haven't driven that road for years, and the last time I did, I got a panic at the same place that this new one seemed about to develop. That time I stopped the car, pretended to examine the tires, and then I asked my wife to drive. This time nothing could stop me from continuing to drive and the panic went away, but just when, I don't remember. We all had a nice time and I drove back without remembering the near panic I had on the way out. Then this noon I went to a hotel where I haven't eaten for years because of panics, and just as I was leaving, an old friend came up to greet me and to tell me a long-winded, boring story and I got mad at him—I wanted to get back at the office. I was just mad, not panicky. Then when I left the office to come here, a client nabbed me at the door and told me a joke, and I got mad because he was delaying my trip to your office. When I did get away, I realized that I had had only one slight panic that I handled all by myself, and what you might call 'two mads' because I was delayed by someone interfering with my going where I should go. Now you will have to tell me what's going on here. Oh yes, my wife and I had two drinks one night before dinner. She said a couple of mixed drinks would taste good and they did."

"But what is going on? You sit and write down what you and I say. You don't hypnotize me, you aren't doing any psychoanalysis. You talk to me but you don't say anything in particular. I suppose when you get around to it you will hypnotize me, but what for I don't know. That problem I came in with, psychoanalyzed without results for two and a half years and brainwashed with tranquilizers and psychoanalysis for another half-year, and now in two hours without you doing anything, I'm pretty sure I'm over my problem." A casual reply was made that therapy usually takes place within the patient, that the therapist is primarily a catalyst. To this he answered, "Well, 'catalyst' when you get ready. If I can waste three years on psychoanalysis and tranquilizers and just get worse and I get better [note first-person pronoun] in two hours watching you write, you can have all of my time you want. It's wonderful to go to the office and home and to lunch again and it was good to meet that old friend at the hotel, and that story our client told me wasn't half bad. When is my next appointment?"

He was instructed to come in a week's time and to let his unconscious mind work on his problem "as needed."

A week later the man entered the office and inquired with some bewilderment, "Things are happening all right. I've had panics all week, not bad ones, puzzling ones. They were all in the wrong places. I do my regular work in the way I want to, I've increased my workload. I go back and forth to my office O.K. But what happens is something silly. I put on one of my shoes perfectly comfortably, but as I reach for the other, my panic hits me hard for a moment, then disappears, and I put on the other shoe comfortably. I drive into the garage, turn off the ignition, get out of the car, lock the garage door, and a sudden panic hits me, but by the time I've put my car keys in my pocket, the panic is gone. What's more, every panic I get makes me more amused, it's so silly and so short. I don't even mind them. It's funny how a man can get so panicky and suffer the way I did for so long when now it is so brief and so amusing."

"I wonder if the reason for these panics isn't my wife's irritation with me. She has always wanted me to see things her way, and it always made me mad. So I wonder if I get into these panics because they irritate the hell out of her. You know. I think that's the underlying cause. What I suspect is that somehow you are making me tear up the old problem and scatter it around like confetti. I wonder if that's what I'm doing, tearing up my problem and just throwing it to the wind. I wonder why in three years I never told my analyst about my wife's antagonism. Four or five or more hours a week for three years ought to drain dry every idea a man has. Why did I tell you? You never asked! Oh yes, I played two days of golf the way I like to play, no drinking, no panics. Then on the way here I got a panic as I stepped outside the office building, and so I went into the [adjacent] bar, ordered three double shots of whiskey, paid for them, looked at them all lined up for me and never saw a sillier thing in my life. So while the bartender just stared at me and the untouched drinks, I walked out. I didn't have a panic."

"Now you have been writing about half-hour on what I've been telling you, and that clock there says its half-past the hour and I'm willing to bet the next time I look at it, it will be on the hour." (The implications of this remark are obvious.)

Slowly, gravely, the answer was given, "You are entirely right. " Immediately his eyes closed, and a deep trance ensued at once. He was promptly asked to review the progress *he had made* and the account of the current interview was read slowly to him. As he listened, his head slowly nodded perseveratively in an affirmative fashion.

Exactly on the hour he was told, "It's just as you said, it's exactly the hour by the clock." He aroused, stretched, yawned, and asked, "How about next week, same time?"

The appointment was made.

As he left the office, he remarked, "I'm reading this (taking from his jacket pocket) delightful book. Would you like to read it when I'm finished?" He was assured that it would be a pleasure.

The next meeting was most enlightening. As he entered, he remarked, "I'm enjoying these conversations. I'm understanding. For years I have unconsciously resented my wife in one way only. Her father died when she was an infant, and her mother swore she would be a father to the little baby. She was. She still is, and my wife is like her mother. She wears all the pants in the home. Mine, and my son's too. She is completely the man in the house in every way. But we are so compatible in every other way, and we are deeply in love with each other, and she always decides things the right way. The thing is, I would like permission from her to make the decision she is going to make anyway. No, that's wrong. I want no permission, I just want to make decisions and let her agree with them because my decision is right, instead of my agreeing with her decisions because they happen to be the ones I would make. Funny, I never even talked about all this in the three years' time in psychoanalysis; now I wonder why I have told you all this when I didn't even think highly of hypnosis. And last Sunday I laughed to myself. My wife announced that she was taking me and the kids to an entertainment that I wanted to attend, and she knew it. But I decided I would just stay home and I told her so. I really enjoyed doing it and I felt greatly amused. It was worth missing it. I just felt like a happy little boy who had successfully asserted himself."

"Now with your permission I'm going to—no, I don't want your permission because I decided to do it and I've been doing it for almost a week. What I do is this. The first day I got in my car, I deliberately had a short panic after the first block or two, and then drove on to the office comfortably. The next day I drove still further and deliberately had another brief panic and drove on. The same thing is done when I go home. I've only got about enough distance left for about four or five more short panics. Then I'll be through. But I'm not going to stop seeing you. It's worth it to have a conversation with you once a week if you don't mind, and I expect to be charged for it."

Therapy has continued in this fashion; at first a simple report by the patient of his "own behavior" with no expectation of any comment from the author and a general conversation on various related topics. Thus did the patient take over the responsibility of his own therapy, doing it in his own way at his own speed.

He is still continuing his weekly visits, sometimes on a purely social level, sometimes discussing the teenage behavior of his children not as a problem but as an interesting contrast to his own. His own problem has vanished so far as any personal difficulties are concerned. That he is willing to pay a psychiatric fee for social visits suggests that unconsciously the man wants the assurance of a continued friendship for some length of time from one who aided him to achieve a satisfying sense of masculine dominance without compelling him to go through a long, dependent, submissive, and fruitless relationship in search of therapy, but who instead simply placed the burden of responsibility for therapy upon him and his own unconscious mind. However, as the weeks go by the evidence is building that he will soon be reducing the frequency of his visits. Early summer plans have been repeatedly mentioned and these, as they are outlined, will make visits impossible. Thus, his unconscious mind is informing the author of the impending termination. Invariably he goes into a spontaneous trance of five to ten minutes' duration as the end of the hour approaches. In this trance he remains silent, and so does the author.

Similar therapeutic procedures have been employed in the past, not exactly in this fashion but in a decidedly comparable manner. One patient will make an appointment phrasing his request, "so that I can have my batteries recharged" (meaning a trance, sometimes with helpful suggestions, sometimes merely a trance). Other patients come in seemingly for no more than a "casual" conversation, eventually discontinuing this practice. In the past such therapeutic procedures have sufficed to achieve long-term satisfactory results, as witnessed by follow-up inquiries five and ten years later.

## **SECOND FIELD EXPERIMENT**

Another unexpected opportunity arose to test the above technique. A 24-year old-girl who became acutely disturbed in 1961 by visual and auditory hallucinations of a persecutory character developed many persecutory delusions, became antagonistic (she was the youngest) toward her two siblings and her parents, and finally had to be hospitalized on an emergency basis where her case was diagnosed as schizophrenia, paranoid type, with a doubtful prognosis.

"Psychodynamically oriented" psychotherapy was undertaken by various psychoanalytically trained psychiatrists. The girl, a college student of decidedly superior intelligence, made mockery of them, ridiculed psychoanalytic concepts, placed the psychoanalysts in a self-defensive position, or else angered them and was regarded by them as "not amenable to any kind of psychotherapy." Electroshock therapy was recommended but refused possibly by both the relatives as well as by the patient. (The father, a dentist, had sought counseling on the matter from two other psychiatrically trained psychotherapists who had advised against it as too soon to be warranted. Hence it is not known whether the father or the patient refused, or both, the patient stating very simply, "I would not tolerate having my brains scrambled for thumbpushes on a button at \$30 a push").

She was asked what she wished of the author. Her statement was, "I have a family that think you can hypnotize me into sanity, as they call it. God, how I hate them. So they just signed me out of the state hospital and brought me here willy-nilly. Now what kind of an ass are you going to make of yourself?"

"None at all, I hope, regardless of my potentialities. I'm not going to psychoanalyze you, I'm not going to take your history, I don't care about your Oedipus complex or your anal phase, I'm not going to Rorschach you or T.A.T. you. I'm going to show you a letter from your father (which reads in essence 'My college daughter 22 years old is very disturbed mentally. Will you accept her for therapy?') and my answer to him (which reads in essence 'I shall be glad to see your daughter in consultation.'). I do have one question to ask you, What did you major in?"

She answered, "I was going to major in psychology, but things began to go wrong so I just switched in my junior year to English, but I've read a lot of that crap called psychology. And I am fed up to the ears with psychoanalysis."

"Good, then *I won't have to waste your time or mine*. You see, all I want to do is *to find out if we can understand each other*. Now be patient with me and let me ramble on. You're here on a two-hour appointment and as long as you're going to be bored, let it be as boresome as can be."

Promptly she said, "Well, at least you are honest; most psychiatrists think they are interesting."

Very rapidly the author then explained that he was going to read to her a paper he had just written (she interjected, "Do anything to get an audience, wouldn't you?") and immediately he had, as in the preceding case, asked her to put both feet on the floor, her hands on her thighs, to stare steadily at the clock, being sure that she just "plain resented" the boredom "instead of going to sleep." (She knew that the author employed hypnosis, and this precluded her from thinking hypnosis would be used.)

Systematically the technique described above was used again almost verbatim. The only difference was that the author proceeded more slowly, and at first there was much repetition by varying slightly the words but not the essence of their meaning.

At first her expression was one of scornful mockery, but she suddenly declared in amazement, "My right hand is lifting, I don't believe it, but it is and I'm not in a trance. Ask a different kind of question."

She was asked if her unconscious mind thought it could communicate with me. In astonishment she declared, "My head is nodding 'yes' and I can't stop it, my right hand is lifting up and I can't stop it, and my right index finger is also lifting too. Maybe my unconscious mind can communicate with you, but make them stop moving."

"If your unconscious mind wants to stop them, it will do so itself" was the answer given to her.

Almost at once she said, "Oh, they've all stopped, so now maybe if you just ask me the questions, I can get at some stuff that I know I've repressed. Will you please go ahead?"

Her eyes closed, a spontaneous trance developed, therapeutic rapport was well-established before the two hours were up, and their girl is now a most eager, cooperative, and thoroughly responsive patient, making excellent progress.

This was but another impromptu field experiment prompted by the overt hostility of the opening of the session. She had been seen for less than 10 hours when her family expressed the belief that she was better than she was at anytime previously in her life. She, however, laughingly stated, "You don't live with mixed-up ideas such as I had so long as I did without learning that there is a terrific interweaving in all of your thinking. I want to stay in therapy and just keep on learning to understand myself."

Following the first 10 hours she enrolled in college where she is making an excellent adjustment seeing the author once a week. She discusses objectively, well, and understandingly her past symptomatic manifestations as emotionally violent experiences belonging to the past and usually terminates the therapeutic hour with a 15- to 20-minute trance.

### **THIRD FIELD EXPERIMENT**

Before this paper had been typed in final form a third patient with a totally different type of resistance came into the office. She walked with a controlled rigidity of her body, stepping softly. The right side of her face was one of obviously controlled frozen immobility; she spoke clearly and lucidly, with a patterned left-sided mouthing of her words; her right eye blink was markedly reduced; her right arm movements were constrained and hesitant, and when she moved her hand toward the right side of her face, such movement was slower and definitely guarded in comparison with her left-arm movements, which were free and easy and decidedly expressive.

To spare the patient she was asked immediately, "How long have you had trigeminal neuralgia? Answer in the fewest possible words and slowly, since I do not need too much history to *begin your therapy*."

Her reply was "Mayos', 1958, advised against surgery, against alcohol injections, told there was no treatment, have to put up with it and endure it all my life, (tears rolled down her cheeks), a psychiatrist friend said maybe you help."

"You working?"

"No, leave of absence, psychiatrist friend say see you—get help."

“Want help?”

“Yes.”

“No faster than I can give it?” (That is, would she accept help at the rate I considered best. I wanted no expectation of a “miracle cure.”)

“Yes.”

“May I start work on you now?”

“Yes, please, but no good, all clinics say hopeless, painful. Everybody enjoy himself but I can’t. I can’t live with my husband, nothing, just pain, no hope, doctors laugh at me see you for hypnosis.”

“Anyone suspect psychogenic origin of pain?”

“No, psychiatrists, neurologists, Mayos’—all clinics say organic, not psychogenic.”

“And what advice do they give you?”

“Endure; surgery, alcohol, last resort.”

“Do you think hypnosis will help?”

“No, organic disease, hypnosis psychological.”

“What do you eat?”

“Liquid.”

“How long does it take to drink a glass of milk?”

“Hour, longer.”

“Trigger spots?”

In a gingerly fashion she pointed at her cheek, nose, and forehead.

“So you really think hypnosis won’t work! Then why see me?”

“Nothing helps, one more try only cost a little more money. Everybody says no cure. I read medical books.”

This was far from a satisfactory history, but the simplicity and honesty of her answers and her entire manner and behavior were convincing of the nature of her illness, its acute

and disabling character, the reality of her agonizing pain, and her feeling of desperation. Her pain was beyond her control, it did not constitute a condition favorable to hypnosis; she was well-conditioned over a period of 30 to 40 out of 60 months (as was afterward learned) by the experience of severe uncontrollable pain with occasional brief remissions, and all respected medical authorities had pronounced her condition as incurable and had advised her "to learn to live with it and only as a last resort to try surgery or alcoholic injections." She had been informed that not even surgery was always successful, and surgical residuals were often troublesome. One man only, a psychiatrist who knew the author, advised her to try hypnosis as a "possible help."

In view of this well-established background of learning and conditioning based upon long experience direct hypnosis was regarded as inviting a probable failure. Accordingly the technique for resistant patients was employed. She was allowed to sit and watch the author, which she did with desperate attention. No suggestion of any sort was offered except the statement, made with marked firmness of tone of voice, "*Before I make any beginning of any sort, I want to offer you some general explanation.* Then we can begin." Very gently she nodded her head affirmatively.

The author proceeded at once with the technique described above, referring openly to the typed manuscript to make the repetition of it as verbatim as possible.

She responded to the technique with remarkable ease, demonstrated ideomotor movements of her head and arm catalepsy.

There was added to the technique the additional statements that an inadequate history had been taken, that her unconscious mind would search through all of its memories, and that she would communicate freely (to do so "freely" would imply "comfortably") any and all information desired, there should be a careful search of her unconscious mind of all possible ways and means of controlling, altering, changing, modifying, reinterpreting, lessening, or in any other way doing whatever was possible to meet her needs. She was then given the posthypnotic suggestion that she would again sit in the same chair and depend upon her unconscious mind to understand the author and his wishes. Slowly, perseveratively, she nodded her head in the affirmative.

She was aroused from the trance by saying, "As I just said, 'Before I make any beginning of any sort, I will want to offer you some general explanation. Then we can begin.'" To this was added with a pointed inflection, "Is that all right with you?" Slowly, over a period of two minutes, she opened her eyes, shifted her position, wiggled her fingers, twisted her hands, and then answered very easily and comfortably in marked contrast to her previous labored and guarded answers, "That will be perfectly all right."

Immediately, in a most startled fashion, she exclaimed, "Oh my goodness, what happened? My voice is all right and it doesn't hurt to talk." With this she gently closed her mouth and slowly tightened the masseter muscles. Promptly she opened her mouth and said, "No, the neuralgia is there just as severe as ever, but I'm talking without any pain. That's funny. I don't understand. Since this attack began, it's been almost impossible to talk, and I don't feel the air on my trigger points." She fanned her cheek,

nose, and right forehead, then gently touched her nose with a resulting spasm of extreme pain.

When this had subsided she said, "I'm not going to try the other trigger spots even if my face does feel different and I have normal speech."

She was asked, "How long have you been in this room?" Wonderingly she replied, "Oh, five minutes, at the very most 10, but not really that long." The face of the clock was turned toward her (its position had been carefully changed during her trance). In utter bewilderment she exclaimed, "But that's impossible. The clock shows more than an hour!" Pausing, she slid her watch from under her sleeve and said again (since her watch and the clock agreed) "But that's utterly impossible, " to which the author said with great intensity, "*Yes, it is quote utterly impossible unquote but not in this office.*" (The indirect hypnotic suggestion is obvious to the reader but it was not to the patient.)

She was given an appointment for the next day and rapidly ushered out of the office.

Upon entering the office she was asked before she took her seat, "And how did you sleep last night. Did you dream?"

"No, no dreams, but I kept waking up over and over all night long, and I kept having the funny thought that I was waking up to take a rest from sleeping or something."

She was told, "*Your unconscious mind understands very well and can work hard*, but first I want a fully history on you before we work, so sit down and just answer my questions."

Searching inquiries revealed a well-adjusted parental home, a happy childhood, and excellent college, marital, economic, social, and professional adjustments. It was also learned that her first attack had begun in 1958, had lasted continuously for 18 months during which time she had futilely sought medical or surgical aid from various well-known clinics, had undergone psychiatric examinations to rule out possible psychogenic factors, and had consulted various prominent neurologists. She was a psychiatric social worker and had a cheerful habit of softly whistling merry tunes almost continuously while at work or even walking down the street. She was exceedingly well-liked by her colleagues and explained that she had been referred to the author by an old-time friend of his, but that all others had commented most unfavorably about hypnosis. To this she added, "Just meeting a medical man who uses hypnosis has already helped me. I can talk easily, and this morning when I drank my glass of milk I did it in less than five minutes, and it usually takes an hour or more. So it wasn't a mistake to come here."

The reply was given, "I'm glad of that. " Her eyes glazed, and spontaneously she developed a deep trance.

The details of the indirect suggestions to the effect that her unconscious could do what it desired will not be given. Partial remarks, remarks with implications, double binds, and making one thing contingent upon something entirely unrelated when read seem much

too meaningless to report. When spoken, the intonations, the inflections, the emphases, the pauses, and all the varying implications and contingencies and double binds that could thus be created set into action a wealth of activities for which variously disguised instructions could be given. For example one statement was that the cracking of a Brazil nut with her teeth on the right side of her mouth would really be most painful, but, thank goodness, she had better sense than to try to crack Brazil nuts or hickory nuts with her teeth, especially on the right side of her mouth for the reason that it would be so painful and *not at all like eating*. The implication here is most emphatically that eating is not painful. Another was, "It's just too bad that that first bite of filet mignon will be so painful when the *rest of it will be so good*." Again the implication could not be fully recognized, since the author immediately digressed to some other type of suggestion.

She was aroused from the trance state by the simple remark, "Well, that's all for today." Slowly she awakened and looked expectantly at the author. Pointedly he directed her attention to the clock. She exclaimed, "But I just got here and told you about the milk, and [looking at her watch] a whole hour has gone by! Where did it go?" Airily, flippantly (so that she could not suspect the reply) the author said, "Oh, the *lost time has gone to join the lost pain*," and she was handed her appointment card for the next day and quickly ushered out of the office.

The next day she entered the office to declare, "I had filet mignon last night and the first bite was awful agony. But the rest of it was wonderful. You can't imagine how good it was, and the funny thing is that when I combed my hair this morning, I got a silly urge to jerk locks of it here and there. It made me feel so foolish but I did it, and I was watching my strange behavior and I noticed my hand resting on my right forehead. It isn't a trigger spot any more. See [demonstrating], I can touch it anywhere."

At the end of four hour-long sessions her pain was gone, and she raised the question at the fifth, "Maybe I ought to go back home." In a jocular manner the author said, "*But you haven't learned how to get over the recurrences!*"

Immediately her eyes glazed, closed, a deep trance ensued, and the author remarked, "*It always feel so good when you stop hitting your thumb with a hammer.*"

A pause, then her body stiffened in a sudden spasm of pain, and then almost as quickly relaxed, and she smiled happily. Flippantly the author said, "Oh, phooey, you need more practice than that, *work up a sweat with a half dozen*, that will really make you realize that you've had excellent practice." (Flippancy does not belong in a dangerous or threatening situation, only where the outcome is certain to be pleasing.) Obediently she did as asked, and beads of perspiration formed on her forehead. When she had finally relaxed, the comment was made, "Honest toil brings beads of perspiration to the brow—there's a box of tissue there, why not dry your face." Taking her glasses off, and still in the trance, she reached for a sheet of tissue and mopped her face. She dried her right cheek and her nose as briskly as she had the painless left side of her face. No mention of this was made directly, but the seemingly irrelevant comment was made, "You know, it's nice to do things remarkably well and yet not know it." She merely looked puzzled

except for an odd little smile of satisfaction. (Her unconscious was not yet "sharing" the loss of the trigger spots of her cheek and nose.)

She was aroused with the statement, "And now for tomorrow," handed her appointment card, and promptly dismissed.

As she entered the office at the next appointment, she remarked, "I just am at a loss about everything today. I don't need to come, but I'm here and I don't know why. All I know is the steak tastes good and I can sleep on my right side and everything is all right, but here I am." The answer given was, "Certainly you are here; just sit down and I'll tell you why. Today is your 'doubt day,' since anybody who has lost that much trigeminal neuralgia so fast is entitled to some doubts. So, slap your left cheek hard." Promptly she administered a swift, stinging slap, laughed, and said, "Well, I'm obedient, and that slap really stung."

With a yawn and a stretch the author said, "Now slap your right cheek the same way." There was marked hesitation followed by a quick slapping movement, the force of which was greatly reduced at the last fraction of a second. The author promptly remarked rather mockingly, "Pulled your punch, pulled your punch, had a doubt, didn't you, but how does your face feel?" With a look of astonishment she answered, "Why, it's all right, the trigger point is gone and there is no pain." "Right. Now do as I told you *and no more pulling your punch.*" (One does not yawn and stretch and speak mockingly to a patient who might have agonizing pain, but she could not analyze this.)

Very quickly and forcibly she slapped her right cheek and nose with a stinging blow and remarked, "I did have a doubt the first time but I haven't got any now, not even about my nose because I hit that too, but I didn't have that in mind." Thoughtfully she paused and then struck her forehead hard with her fist. She remarked, "Well, there's the end of doubts," her tone of voice both jocular and yet intensely pleased. In a similar manner the author remarked, "Astonishing how some people have to have a little understanding literally pounded into their heads." Her immediate reply was, "It's obvious there was room for it." We both laughed and then, with a sudden change of manner to one of utter intentness and gravity, she was told with slow heavy emphasis, "*There is one thing more I want to tell you.*" Her eyes glazed, a deep trance ensued. With careful, impressive enunciation she was given the following posthypnotic suggestion. "You like to whistle, you like music, you like meaningful songs. Now I want you to make up a song and a melody using the words 'I can have you anytime I want you, But, Baby there ain't never gonna be a time when I want you,' and forever and always, as you whistle that tune you will know, and I do not need to explain, since you know! "Slowly, perseveratively, her head nodded affirmatively. (The burden of responsibility was hers, the means was hers.)

She was aroused by the simple statement, "Time really travels fast, doesn't it?" Promptly she awakened and looked at the clock and said, "I'll never understand it." Before she could proceed, she was interrupted with, "Well, the deed is done and cannot be undone, so let the dead past bury its dead. Bring me only one more good tomorrow and you will go home tomorrow with another good tomorrow and another and another, and all the

other good tomorrows are forever yours. Same time" (meaning appointment for the next day at the same hour). She left the office without delay.

The final interview was simply one of a deep trance, a systematic, comprehensive review by her within her own mind of all of her accomplishments and the gentle request to believe with utter intensity in the goodness of her own body's potentials in meeting her needs and to be "*highly amused*" when the skeptics suggest that you have had remissions before followed by relapses." (The author is well aware of the deadliness of skeptical disparaging remarks and of the engendering of iatrogenic disease.) Correspondence received since her return home has confirmed her freedom of pain and also that a neurologist, antagonistic toward hypnosis, offered her a long argument to the effect that the relief she experienced would be most transient and that there would be a relapse (an unwitting effort to produce iatrogenic disease). She related this, stating that his argument had made her feel "*highly amused*," thereby quoting directly from the author's own posthypnotic suggestion.

## **DISCUSSION AND COMMENTS**

In previous publications this author has repeatedly indicated indirectly or directly that the induction of hypnotic states and phenomena is primarily a matter of communication of ideas and the elicitation of trains of thought and associations within the subject and consequent behavioral responses. It is not a matter of the operator *doing* something to subjects or *compelling* them to do things or even *telling them what to do and how to do it*. When trances are so elicited, they are still a result of ideas, associations, mental processes and understandings already existing and merely aroused within the subjects themselves. Yet too many investigators working in the field regard their *activities and their intentions and desires* as the effective forces, and they actually uncritically believe that their own utterances to the subject elicit, evoke, or initiate specific responses without seeming to realize that what they say or do serves only as a means to stimulate and arouse in the subjects past learnings, understandings, and experiential acquisitions, some consciously, some unconsciously acquired. For example the affirmative nodding of the head and the negative shaking of the head are not deliberate, intentional, supervised learning, and yet become a part of verbalized or nonverbalized overt communication, or an expression of the mental processes of the person, who thinks he is merely listening to a lecturer addressing an audience, which is unrecognized by the self but visible to others. Then, too, as another example, one learns to talk and to associate speech with hearing, and we need only to watch the small child learning to read to realize that the printed word, like the spoken word, becomes associated with lip movements and, as experiments have shown, with subliminal laryngeal speech. Hence when a severe stutterer endeavors to talk, definite effort is required by listeners to keep their lips and tongue from moving and to refrain from saying the words for the stutterer. Yet there never was any formalized or even indirect teaching of the listeners to move their lips, their tongue, or to speak the words for the stutterer. Nor does the stutterer want any other person to do it; he even resents it strongly. But this experiential learning is unconsciously acquired and is elicited by stimuli not even intended to do so but which set into action mental processes which the listener at an involuntary level, often uncontrollable and even known to be likely to

incur bitter resentment on the part of the stutterer. The classic joke in this connection is that of the stutterer who approached a stranger and stammered painfully a request for directions. The stranger pointed to his ears and shook his head negatively, and the stutterer made his inquiry again of another bystander, who gave the directions. Thereupon the bystander asked the man who had indicated that he was deaf why he had not replied, and received the badly stuttered reply of, "Do you think I wanted my head knocked off?" His reply disclosed eloquently his full knowledge of his own intense resentments when somebody tried to "help" him to talk or seemed to mock him.

Yet the stutterer has not asked directly or indirectly for the other person to say his words for him; the listeners know it will be resented and do not want to do it, yet the distressing stimuli of stuttered words elicit their own long established patterns of speech. So it is with the stimuli, verbal or otherwise, employed in induction techniques, and no one can predict with utter certainty just how a subject is going to use such stimuli. One names or indicates possible ways, but the subjects behave in accord with their learnings. Hence the importance of loosely organized, comprehensive, permissive suggestions and the relative unimportance of ritualistic, traditional techniques blindly used in rote fashion.

On several occasions this author has had opportunity to do special work with congenitally deaf people and those who had acquired nerve deafness in childhood, one an instance of a man who acquired nerve deafness after the age of 40. All of these people had been trained in "lip reading," although most of them explained to the author that "lip reading" was "face reading," and all of them could do sign language. To prove this one of these deaf people took the author to listen to a Sunday sermon by a heavily bearded minister and, by sign language, "translated" to show that he was "face reading," since the author then could read sign language. Further experimentation with this deaf man disclosed that if the minister spoke in a monotone or whispered, his face could not be "read."

With these deaf people an experiment was done in which it was explained that an assistant would write on a blackboard various words and that several adults (college level) would face the blackboard and merely silently watch the writing, making no comment of any sort. It was also explained to these adults that, separately, strangers would be brought in and placed in a chair facing them with their backs to the blackboard and continuing to face them as the assistant did the writing. They were not told that the strangers were deaf and could "lip read."

The deaf persons were fully aware that they were, to "read the faces" before them and that they would be reading silently what the assistant was writing, but one additional fact was not disclosed.

In beautiful Spencerian script in large letters the assistant wrote words of varying numbers of syllables. What only the author and the assistant knew was that the words were written to form designs of a square, a diamond, a star and a triangle by the process of placing the words at the strategic points of the angles of the figures. A circle (the last figure) had been previously written on a black cardboard and was hung up on the

blackboard. This latter was formed by the fewest possible and shortest words to permit easier reading as well as the design recognition.

The deaf persons were sitting behind a barrier just high enough to conceal their hands. As the assistant wrote, the author sat so he could see only the deaf persons' hands. The author could not see the blackboard nor did he know the order of the designs or what the words were. He did know that a list of possible words had been made by him and the assistant but that only about a third of them would be required and that the assistant would make his own choices. Furthermore for each deaf person each design except the circle would be in a different sequential order.

One subject (the deaf woman who had acquired nerve deafness after the age of 40) made a perfect score. Not only were the written words "read" by her in the faces of the adults watching the writing, but so were the identities of the designs. Moreover she told the author in sign language that there was "something wrong" with the words "square," "diamond," and "triangle" and something was "a little bit funny" about the word "star," and something "very funny" about the word "circle." One must add, however, that this woman was exceedingly paranoid, psychotically so. None of the others had a perfect record. One man gave all the replies except "circle." He "sign languaged" that the last series of words was written differently, but he could not explain how he identified all of the written words forming the circle. The other subjects all identified the written words, experienced some mild confusion about the words forming the circle, and missed "star" and "circle." This group all felt that they had missed two of the "words." All except the paranoid psychotic patient were allowed to see the blackboard, and the observers all were surprised to find that the strangers had read their facial expressions for both the design recognition as well as the written words.

This experiment was long in the author's mind in relation to the development of his own personal approach to the induction of hypnosis. Therefore, keeping well and clearly in mind his actual wishes, the author casually and permissively (or apparently permissively) presents a wealth of seemingly related ideas in a manner carefully calculated to hold or to fixate the subject's attention rather than the subject's eyes or to induce a special muscle state. Instead every effort is made to direct the subject's attention to processes within himself, to his own body sensations, his memories, emotions, thoughts, feelings, ideas, past learnings, past experiences, and past conditions, as well as to elicit current conditionings, understandings and ideas.

In this way, it is believed by the author, hypnosis can be best induced and a good hypnotic technique so organized can be remarkably effective even under seemingly highly adverse circumstances. However, the author has so far always failed with behavior merely personally objectionable to the subject but entirely legitimate. An account of an instance of this is given in this volume, (See "Another example of confusion in trance induction"), and more than one otherwise compliant subject has "shut off my hearing," or awakened.

In this particular paper a total of four subjects were dealt with by a single technique with only slight modifications to meet the requirements of sex, intelligence, and educational level. All four represented different types of resistance, different backgrounds, and different types of problems. One was a rather severely maladjusted person, the second was unhappily governed by peculiar, circumscribed, uncontrollable maladjustments, the third had a long history of general maladjustment eventuating in a state hospital commitment with a diagnosis of "psychosis, paranoid type, probably schizophrenic," and the fourth was a patient diagnosed repeatedly at competent clinics and by competent neurologists and psychiatrists as suffering from a hopeless organic condition characterized by occasional brief remissions and treatable only in a partially satisfactory manner by organic measures entailing undesirable results. Five years' experience of excruciating pain had firmly convinced and conditioned this last patient to the understanding that the condition was untouchable by psychological measures, and only hopeless desperation led to the seeking of hypnotherapy.

The technique employed so successfully upon four such diverse patients was essentially a rigid arresting and fixation of their attention and then placing them in a situation of extracting from the author's words certain meanings and significances that would fit into the patterns of their own thinking and understandings, their own emotions and wishes, their own memories, ideas, understandings, leanings, conditioning, associational, and experiential acquisitions, and into their own patterns of response to stimuli. The author did not really instruct them. Rather he made statements casually, repetitiously, permissively, yet authoritatively, but in a manner so disguised that their attention was not directed away from their own inner world of experience to the author but remained fixated upon their own inner processes. Consequently a hypnotic trance state developed, one in which they were highly receptive to any general ideas that might be offered to them to examine and to evaluate and to discover for themselves any applicability to their problems. For example the second patient was not told to develop his brief and "silly" panics, nor was he told what plan to work out governing his control of his daily trips. Nor was the origin of his condition ever asked for; his intelligence told him it had an origin, and there was no need to tell him to search for it.

As for the patient with trigeminal neuralgia, neither analgesia nor anaesthesia was suggested. Nor was there a detailed personal history taken. She had been repeatedly diagnosed by competent clinics, neurologists, and psychiatrists as suffering from an organic painful disease, not a psychogenic problem. She knew these facts, the author could understand without any further mention or repetition. Neither was she offered a long and "helpful" discussion of what pain was and various methods of lessening or minimizing, altering or reconditioning her suffering. *No matter what the author said, she was dependent upon her own resources only.*

Hence no more than was necessary was said to initiate those inner processes of her own behavior, responses, and functionings which would be of service to her. Therefore direct mention was made that the first bite of the filet mignon would be painful *but that the rest of it would be so very good*. Out of this simple yet really involved statement she had to abstract all the meanings and implications, and in the process of so doing she was forced

into an unwitting and favorably unequal comparison of many long years of comfortable and satisfying eating free from pain, with only a few years of painful eating.

To summarize, in the therapeutic use of hypnosis one primarily meets the patients' needs on the terms they themselves propose; and then one fixates the patients' attention, through adequate respect for and utilization of their method of presenting their problem, to their own inner processes of mental functioning. This is accomplished by casual but obviously earnest and sincere remarks, seemingly explanatory but intended solely to stimulate a wealth of the patients' own patterns of psychological functioning, so that they meet their problems by use of their learnings already acquired, or that will develop as they continue their progress.

# **Pantomime Techniques in Hypnosis and the Implications**

Milton H. Erickson

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In the early experiments done by this author on hypnotic deafness, verbal communication having been lost as a result of the induced deafness, the value of pantomime was recognized, used, and then replaced by written communications as easier.

The Pantomime Technique as a hypnotic technique complete in itself resulted from an invitation to address an affiliated society of American Society of Clinical Hypnosis, the Grupo de Estudio sobre Hipnosis Clinica y Experimental, in Mexico City in January, 1959.

Just before the meeting the author was informed that he was to demonstrate hypnosis as the introduction to his lecture by employing as a subject a nurse they had selected who knew nothing about hypnosis nor about the author and who could neither speak nor understand English—they already knew that I could not speak nor understand Spanish. They had explained privately to her that I was a North American doctor who would need her silent assistance and they informed her of our mutual language handicaps and assured her that she would be fully respected by me. Hence she was totally unaware of what was expected of her.

This unexpected proposal to the author led to rapid thinking about his past partial uses of pantomime by gesture, facial expressions, etc. This lead to the conclusion that this unexpected development offered a unique opportunity. A completely pantomime technique would have to be used, and the subject's own state of mental uncertainty and eagerness to comprehend would effect the same sort of readiness to accept any comprehensible communication by pantomime as is effected by clear-cut definite communications in the Confusion Technique ("The confusion technique in hypnosis" this volume, Section 2). She was then brought through a side door to confront me. Silently we looked at each other, and then—as I had done many times previously with seminarists in the United States in seeking out what I consider clinically to be "good responsive" subjects before the beginning of a seminar and hence before I was known to them—I walked toward her briskly and smilingly and extended my right hand, and she extended hers. Slowly I shook hands with her, staring her fully in the eyes even as she was doing to me, and slowly I ceased smiling. As I let loose of her hand, I did so in an uncertain, irregular fashion, slowly withdrawing it, now increasing the pressure slightly with my thumb, then with the little finger, then with the middle finger, always in an uncertain, irregular, hesitant manner, and finally so gently withdrawing my hand that she would have no clear-cut awareness of just when I had released her hand or at what part of her

hand I had last touched. At the same time I slowly changed the focus of my eyes by altering their convergence, thereby giving her a minimal but appreciable cue that I seemed to be looking not at but through her eyes and off into the distance. Slowly the pupils of her eyes dilated, and as they did so, I gently released her hand completely, leaving it in midair in a cataleptic position. A slight upward pressure on the heel of her hand raised it slightly. Then catalepsy was demonstrated in the other arm also, and she remained staring unblinkingly.

Slowly I closed my eyes, and so did she. I immediately opened my eyes, stepped behind her, and began explaining what I had done in English, since most of the audience knew English fairly well. She made no startle response, and did not even seem to hear me. I gently touched her ankle and then gently lifted her foot, leaving her to stand cataleptically on one leg. One of the doctors knew I had a smattering of German and held up his fist, opened it, saying questioningly, "die Augen." Gently I touched her closed lids and gave a slight upward pressure. She slowly opened them and looked at me with her pupils still dilated. I pointed to my feet, then to her upraised cataleptic foot, and signalled a downward movement. She frowned in puzzlement apparently at seeing both her hands and her foot uplifted, then smiled at my downward signal toward her foot only, and she put her foot down with what appeared to me to be an expression of some slight embarrassment or bewilderment. The arm catalepsy remained unchanged.

Several of the doctors called her by name and spoke to her in Spanish. She merely looked at me attentively, making no involuntary head or eye movements so common when addressed from some distance away by someone else, nor did she seem to pay any further attention to her hands.

I was asked in English if she could see the audience, since apparently she could not hear them. I moved her hands up, down, and across while she seemed to watch them and my eyes alternately. Then I pointed to my eyes and to her eyes by bringing my fingers close to them; than I made a futile, hopeless sweeping gesture of my right hand toward the audience as I assumed a look of blank surprise and wonderment as I faced the audience as a pantomime of not seeing anybody. She did likewise, showed a startled reaction and asked in Spanish, as I was told later, "Where are they? The doctors are supposed to be here?" Several of the doctors spoke to reassure her, but she merely continued to look frightened.

I promptly attracted her attention by putting my fingers close to her eyes, then to mine, then I lifted her hand and looked with a pleased smile at the ring on her hand as if I admired it. Her fright vanished apparently.

One of the audience asked me how I would awaken her. I showed her the second hand on my watch, marked out 10 seconds of time by synchronizing a finger movement with the second hand movement. She watched intently. Then I had her watch me close my eyes, beat out about 10 seconds, and then I opened my eyes with an upright alert jerk of my head. Then I smiled and with a nod of my head and a movement of my hand I indicated that she was to do likewise. As she did so, I stepped back rapidly, and when she opened

her eyes she saw me at the far end of the platform. I immediately walked forward briskly with a pleased smile and extended my hand in greeting. This re-established the original way in which we had met and she awakened immediately and shook hands with me as she looked me over. I bowed and said, "Thank you very much. I am most appreciative," as if dismissing her. One of the doctors translated my remarks; I repeated myself and again shook hands in a dismissal fashion. She looked puzzled and uncertain, so one of the group told her she could now leave. She left the room in what to me seemed a most puzzled fashion.

Later I was informed that she had developed a total amnesia for the entire experience, and had expressed wonderment at my immediate dismissal of her when she was supposed to assist me. She also expressed disbelief in hypnosis but volunteered as a subject, promptly developed a profound trance, recalled all of the events of her experience with the author including the "departure [negative hallucination] of the audience" and her "puzzlement" when dismissed, but when aroused from this trance, she again manifested a complete amnesia for both trances. She was subsequently used extensively by members of that group as an assistant and as an experimental and instructional subject.

The second unexpected, completely pantomime induction was done in January of 1961 during a visit to Caracas, Venezuela. I had been invited to tour the Hospital Concepcion Palacios during which I was asked to address the staff on the use of hypnosis in obstetrics at an impromptu meeting in the conference room. One of the audience suggested that I demonstrate as I discussed the phenomena of hypnosis. Remembering my experience in Mexico City I asked if I might work with some young woman who did not know the purpose of my visit there, who did not understand English, and who had had no experience in hypnosis of any sort. Three young women were brought in, and I looked them over and selected the one who gave me a clinical impression of what I term "responsive attentiveness." I asked that the others be dismissed and that she be told that I wished her cooperation while I lectured. Very carefully my translator so informed her without giving her any more information, and she nodded her head affirmatively.

Stepping over to her and standing face to face with her, I explained in English for those who understood it that they were to watch what I did. My translator kept silent, and the young lady eyed me most attentively and wonderingly.

I showed the girl my hands, which were empty, and then I reached over with my right hand and gently encircled her right wrist with my fingers, barely touching it except in an irregular, uncertain, changing pattern of tactile stimulation with my fingertips. The result was to attract her full, attentive, expectant, wondering interest in what I was doing. With my right thumb I made slight tactile pressure on the latero-volar-ulnar aspect of her wrist, as if to turn it upward; at the same moment at the area of the radial prominence I made a slightly downward tactile pressure at the dorso-lateral aspect of her wrist with my third finger; also at the same time I made various gentle touches with my other fingers somewhat comparable in intensity but nonsuggestive of direction. She made an automatic response to the directive touches without differentiating them consciously from the other touches, evidently paying attention first to one touch and then to another. As she began

responding, I increased varyingly the directive touches without decreasing the number and variation of the other distracting tactile stimuli. Thus I suggested lateral and upward movements of her arm and hand by varying tactile stimuli intermingled with a decreasing number of nondirective touches. These responsive automatic movements, the origin of which she did recognize, startled her, and as her pupils dilated, I so touched her wrist with a suggestion of an upward movement that her arm began rising, so gently discontinuing the touch that she did not notice the tactile withdrawal, and the upward movement continued. Quickly shifting my fingertips to hers, I varied the touches to direct in an unrecognizable fashion a full upward turning of her palm, and then other touches on her fingertips served to straighten some fingers, to bend others, and a proper touch on the tip of the straightened fingers led to a continuing bending of her elbow. This led to a slow moving of her hand toward her eyes. As this began, I attracted with my fingers her visual attention and directed her attention to my eyes. I focussed my eyes for distant viewing as if looking through and beyond her, moved my fingers close to my eyes, slowly closed my eyes, took a deep sighing breath, sagged my shoulders in a relaxed fashion, and then pointed to her fingers, which were approaching her eyes.

She followed my pantomimed instructions and developed a trance that withstood the efforts of the staff to secure her attention or to awaken her in response to suggestions and commands given in English.

I asked for her name, and one of the staff gave it to me in rapid Spanish, the translator repeated it, laboriously enunciating the name so that I could grasp the phonetics. She made no response to anything the staff or the translator said or did, merely standing passively. When someone tried to push her, she became actively rigid but made no other response. I led her about the room, touching her eyelids to indicate that she was to open them, and then indicated a chair, in which she seated herself. Even with her eyes open, she seemed oblivious to everyone there and to all auditory stimulation.

I learned that she was a resident physician and that she had not yet been introduced to hypnosis. While she sat with her eyes open and apparently unseeingly and unhearingly, I discussed hypnosis.

At the close of my remarks I awakened her by turning to her and indicating she was to stand. Then, with the gesture of brushing my palms across each other as if the task were all done, I smiled at her and bowed. The hypnotic facial expression disappeared, she looked about the room and asked, as I was told later, "What am I to do?" while I, not understanding, bowed and said "Gracias, Senorita." She looked puzzled, my translator explained her task was done, and she left in a puzzled manner. I then began to answer questions from the audience.

The following August of the same year—that is, six months later—I visited there and again lectured to the staff. My former subject was present in the audience, and when I beckoned to her to come up on the platform, she did so in a pleased fashion but developed spontaneously a deep trance just before she reached the desk at which I sat.

She had in the meantime not only been a hypnotic subject for others but had also used it on her patients. As a result, despite the author's linguistic handicap, she could anticipate some of the phenomena that the author wished to demonstrate. In addition a translator conveyed his requests to her after rapport was transferred to him. This transfer of rapport was effected by the process of pointing to my right hand, then to hers, shaking hands with her, then withdrawing my hand, indicating it, reaching over and shaking hands with my translator while I indicated to her with my left hand that she was to see the translator and to do likewise, and as they shook hands they exchanged greetings in Spanish.

The next unexpected completely pantomime initial induction was done in Venezuela that same month before the Medical Society in Caracas. Just as I was about to begin my lecture I was courteously interrupted by the officers and the explanation was offered that many of the doctors present did not believe in hypnosis, that there was much conviction that I had a confederate with whose aid I would perpetrate a hoax. They were obviously most distressed to tell me this but explained that as the officers of the society they had been delegated to ask me to demonstrate hypnosis by maintaining a complete silence and to select someone from the large audience for whom they could secure a valid identification. I replied that I hoped the subject I secured would not be able to understand English.

In the rear of the auditorium I saw a woman about 30 years old who gave every evidence of what I term that "responsiveness," which I personally consider a most helpful indication of hypnotisability. I pointed the woman out to my translator, she was questioned for her identity, was discovered to be the wife of a physician who did not believe in hypnosis, and that she too did not believe in it and had never seen it. However, she readily came to the platform, differing from the Mexico City nurse in that she knew hypnosis was under consideration. As she approached me, I asked, "And if you please, what is your name?" She turned to the translator and asked him what I had said and this was broadcast by the public address system present. Thus the point was made that she did not understand English.

Essentially the same technique as was used in Mexico City was employed with the same hypnotic results. However, one addition was made. I patted the back of my hand gently during the demonstration and smiled as if I liked the sensation. I did likewise to her hand, and she too smiled.

Then I brushed off the back of my hand as if I were brushing away all sensation. I then pinched and twisted the skin of my hand in an obviously painful fashion but wore a look of profound astonishment and wonderment as if I felt nothing and then smiled happily. I reached for her hand, did likewise, and in astonishment she turned to my translator who, ill at ease on my account, had assured her as she came to the platform that he would remain on the platform as would the officers, and she should feel free at any time to speak to him.

As I forcibly pinched and twisted the skin of her left hand, the officers crowded around, did likewise, and the woman also tested her hand. She then asked the officers what had

happened to her hand and asked if it (her hand) were dead, speaking in what the translator later reported as a tone of distress. A doctor in the audience and several others in the audience reassured her. She did not seem to hear them, and a negative hallucination of the audience, visual and auditory was spontaneously manifested. But the translator's explanation was readily heard by her, as were those of the officers on the platform. In other words she had interpreted the platform situation initially as signifying rapport with those who were there but not with the audience, even though her husband was in the audience.

A doubting Thomas in the audience declared in Spanish that he was fully convinced of the validity of hypnosis and asked the officers of the society if he could volunteer as a subject. This request was translated to me. Keeping the woman still there, I accepted his offer, and results similar to those with the woman were secured. However, he aroused from the trance state with a total amnesia and asked the translator to tell me to begin the hypnosis, a request that was broadcast by the public address system. He was reinduced, and the translator told him in Spanish, "After awakening, remember all." Upon awakening from the trance, he was most effervescent in his excited pleasure, and the woman too was much impressed by what she had seen occur with the Spanish physician. In each instance the awakening of the subjects was done by grasping their hands firmly, and since both had their eyes open, shaking their hands briskly and shaking my head briskly as if arousing and clearing my mind. Since the doctor had seen this manoeuvre with the woman, he responded more quickly than she had.

In brief, hypnosis is a cooperative experience depending upon a communication of ideas by whatever means available, and verbalized, ritualistic, traditional rote-memory techniques for the induction of hypnosis are no more than one means of beginning to learn how to communicate ideas and understandings in a joint task in which one person voluntarily seeks aid or understandings from another.

In two experiences in hypnotizing deaf-and-dumb persons sign language was employed with the added pantomime of listlessness and fatigue of movement in making the sign language. With these two subjects rapport was lost if they closed their eyes, and resort had to be made to a sharp shaking of them by the shoulder to awaken them, such a cue having been incorporated into the trance-inducing suggestions originally. When the measure of suggesting that they keep their eyes open in the deep trance was used, their peripheral vision greatly decreased and became so central in character that perhaps only one finger of a letter sign would be seen unless instructions to the contrary were given. However, a total of four trances with two such subjects is only adequate to state that the usual hypnotic trance and attendant phenomena can be induced in the neurologically deaf-and-dumb by sign language, but that there appears to be a profound loss of peripheral vision with a consequent loss of some rapport. This raises an intriguing question of why a trance should cause, in such subjects who are so dependent upon sight, a much greater loss of peripheral vision than this writer has encountered in trances in many thousand of people with normal speech and hearing, where a more limited loss of peripheral vision is very common. If, however, in such subjects a trance is induced by pantomimed instructions to keep their eyes open and to read lip movements, there is no

such loss of peripheral vision even though they had previously spontaneously seen only one digit of a three-finger sign. In explanation of this finding one of the subjects explained, "Lip reading is really face reading; sign language is reading one sign."

Similarly, if during the induction sign language instructions are given that after a trance is developed they are to receive instruction through written communication, the loss of peripheral vision is minimal. This was explained by the same subject as, "In reading you see the paper or the blackboard too." Unfortunately the data on these subjects are insufficient to warrant further discussion.

The first and only previous report on the subject of deaf-mute induction of which this author is aware was presented by Dr. Alfredo Isasi of Barcelona, Spain at the Fifth European Congress of Psychosomatic Medicine in April 1962, and published in September 1962 in *La Revista Latino-Americana de Hipnosis Clinica* (Vol. 3, pp. 92-94.) It is entitled "Dos casos de sofrosis en sordomudos—(Two cases of sophrosis (hypnosis) in deaf-mutes." In this report a technique of inducing hypnosis in deaf mutes, a demonstration of which has been filmed, is described in detail. After the initial communication by sign and gesture the hypnotic state was induced through stroking and gentle pressure on the forehead, eyelids, and jaw line, and tested by raising the arms gently and releasing them. Relaxation, analgesia, and control of bleeding enabling successful dental work in previously apprehensive, fearful, uncooperative patients was achieved. Two case records of young men deaf-mutes were presented in detail.

## **COMMENTS**

Perhaps the most pertinent aspect of this matter of trance induction by a Pantomime Technique is the ease with which a communication of ideas and understandings can be effected without verbalization and in situations in which the subject may be totally uninformed as to the nature of the proposed task being done by two people of different cultures, languages, social usages, and customs. If then one thinks of the many so-called controlled studies and reports found in the hypnotic literature in which two homogenous groups, one called "experimental," one called "control," are handled by the same experimenter who uses slightly different words but has a full knowledge of what results he expects to secure, one can well wonder just how "controlled" are these experiments.

But when "control subjects" have been previously hypnotized by the experimenter or others or have watched hypnotic inductions and experiments of others by the experimenter, (who, of course, knows that he expects to duplicate hypnotic behavior in the "waking state" of the "control subjects"), one does more than wonder about the experimenter's scientific acumen. To this author both the intelligence and the scientific integrity on the part of the experimenter are in question—seriously so!

In the late 1920's, 30's, and 40's this author did some research involving the comparison of the dream symbolism of Hindu mentally ill patients with that of native-born Massachusetts and Michigan patients, using information obtained from Drs. Lalkaka and Govindaswamy, respectively of Bombay and Mysore, India. Similarly he then used

recently drawn pictures of newly admitted mentally ill American patients, which were compared with those collected by Hans Prinzhorn in "Bildnerei Der Geisteskranken" (Verlag, Berlin, 1923) of mentally ill Germans. The similarities were amazing, until one realizes that the dreams and the pictures come from essentially similar human minds even though from different mental states and cultures. In this regard, in a report published in January 1940 in *The Psychoanalytic Quarterly* (V. 9, No. 1, pp. 51-63) this author in association with Lawrence S. Kubie, M.D., commented upon the possible correspondence or homogeneity of unconscious understandings in two people of the same culture. In this report one subject offered a slightly differing wording but precisely the same content as had been worked out *independently* by the subject who did the original cryptic writing in a deep hypnotic trance with no apparent conscious knowledge of its content. The experimenter himself did not know the content of the cryptic writing.

Thus the common dream symbolism of the mentally ill patients of India and of the United States; the common symbolism in the artwork of mentally ill German patients of an earlier era and those of newly admitted mentally ill patients in the United States; the translation of cryptic automatic writing by one hypnotic subject of another subject; along with this report on the Pantomime Technique in hypnosis, all suggest the following: That a parallelism of thought and comprehension processes exists which is not based upon verbalizations evocative of specified responses, but which derives from behavioral manifestations not ordinarily recognized or appreciated at the conscious level of mentation.

In brief, this report on the Pantomime Technique in hypnosis indicates that adequate hypnotic suggestions can be given intentionally without verbalization. It seems reasonable to infer that similar suggestions can also be unintentionally given in pantomime unwittingly to elicit complicated hypnotic phenomena from a subject unacquainted in any way with hypnosis, comparable to the way in which suggestions can be given when the subjects' language and cultural and social usages are unknown to the experimenter, even as the subjects are unacquainted with those of the experimenter.

Hence true experimentation in hypnosis should take into consideration far more than the selected items usually tested. When control measures are devised, it should be held constantly in mind that their purpose is to isolate the selected items so that their effect may be evaluated without distortion by factors which may not have even been considered or identified, let alone eliminated or controlled.

# **The “Surprise” and “My-Friend-John” Techniques of Hypnosis: Minimal Cues and Natural Field Experimentation**

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At a meeting before a medical society a long discussion was presented of hypnosis and its medical applications. At the close, requests for a demonstration of hypnosis were made, and two young women and a physician about 45 years of age came up to the platform. One of the young women stated, "I have never been hypnotized and I have never seen it done, but I don't think it can be done to me. In fact I am sure it can't be done to me." The other girl said, "I have never seen hypnosis or been hypnotized, but I would like to be." The physician stated, "I'm an impossible subject. I have spent a great deal of time with several other physicians and dentists trying to go into a trance, but I seem to be blocked against it. I would like to have you try, even though it will do no good. I would like to go into a trance even though I know I can't. I can use and I do use hypnosis on my patients, but I am not always sure of the validity of their responses. So I would like to join you on the platform so as to observe better."

He was asked if he were absolutely sure he could not go into a trance. His reply was that he was completely convinced that he could not be hypnotized. A member of the audience then mentioned that he himself had spent a total of approximately 30 hours over a period of time attempting to hypnotize this particular physician with no results whatever.

The girl A (the one who thought she could go into a trance) was asked to sit in a chair to the author's immediate right, the other girl (B) was seated to Miss A's right, and Dr. C was placed to Miss B's right but in a chair at a slight angle, so that he could easily watch the faces of the author and those of both girls. The author's chair was also at a slight angle, to give him a fairly good view of Miss B as well as Miss A and Dr. C. Addressing Miss B and Dr. C, the author asked them to watch Miss A carefully, since he intended to use her as the demonstration subject. (This in essence was intended as a potent but indirect and unrecognized suggestion to Miss A.) To Dr. C the author explained in somewhat elaborate detail that he was to exercise his most critical judgment and thus to determine for himself whether or not the various hypnotic phenomena manifested by Miss A were valid in his eyes. (This too was a potent suggestion to Miss A, and it also defined Dr. C's role so that he need not feel resistances.) To Miss B the author remarked that she would undoubtedly enjoy watching the manifestation of hypnotic phenomena, *even though she would not understand all* (with special emphasis on these words) of the hypnotic phenomena that she would see. (Again Miss A was being instructed without my seeming to be doing so, and Dr. C was being informed that there

would be more than would be comprehended, presumably by Miss B). The emphasis, very intense, upon the italicized words also gave an indirect suggestion that she and she alone of the three would see "all." None of the three would understand that emphasis at a conscious level of mentation, but all three would hear it and it would leave an unanswered, though unrecognized question in the minds of all of them which could be utilized later.

To Miss A the statement was then made that the hypnotic trance was based entirely upon learning processes within the subject; that it involved the utilization of the unconscious mind and *automatic processes of response*; thus there were given openly but indirectly instructions heard by A, B, and C for "automatic responses." It was stated that there were a *number of techniques* that could be employed and that some of these would be described briefly to her so that the *audience* would benefit from the reviewing of the various techniques, an unrecognizable implication that B and C were going to be excluded in some way.

There followed then a seemingly casual but rather full summary of the hand-levitation technique, the spot-on-the-wall and eye-closure technique, two variations of the coin technique, followed by an explanation of the technique I had previously developed and, in the mid-50's, termed jestingly "My-Friend-John Technique." In this, I explained elaborately, a person pretends that someone by the name of John is sitting in a chair, and he gives to that imaginary person, with much feeling and quite intense emphasis, the suggestions of the hand-levitation technique, sensing and feeling his own instructions and *making automatic responses to his own suggestions* in much the same way that one tries to say for the other person the word for which that person seems to be groping. Thereby one learns the "feel" and the "timing" of suggestions. In a typical instance the person tells "My Friend John" to sit comfortably in the empty chair, to place the palms of his hands lightly on his thighs, demonstrating this as the instructions are given, and then there are offered slowly and carefully, with full meaningfulness and intensity, the suggestions of finger, hand, and wrist levitation, the bending of the elbow, each step being illustrated by a slow continuing demonstration of such movements as the suggestions are given. Then it is added that as the hand approaches the face, the eyes will close; that when the fingers touch the face, the eyes will remain closed, a deep breath will be taken, and a deep trance state will accompany the taking of that deep breath and that the trance will continue until the purposes to be accomplished are achieved. This is a technique the author has employed in teaching others and in teaching autohypnosis to others for some legitimate purpose.

All three subjects and the audience listened with complete concentration to this rather extensive explanation. Then in continuation the author said, "And now Miss A, since you are to be the demonstration subject, I would like to use a rather simple technique on you that is often very easy and rapid and which I call the 'Surprise Technique.' It is really very simple. All I want you to do [speaking with quiet intense emphasis] is *to tell me what kind, what breed, about what age is that dog there*" (pointing with his extended finger to a bare spot on the platform and looking at that spot with great intensity of interest).

Slowly Miss A turned her head, her pupils dilated, her face showing a rigidity of expression. She looked carefully at the designated spot, and without turning her head back to me, she replied, "It's a Scottie, he's black, and he looks almost exactly like the one I have at home." Slowly she turned her head back to me and asked, "Is he yours? He is about three-quarters grown, like mine." She was asked, "Is he *standing, sitting, or lying down?*" Her reply was, "No, he is just sitting there."

Miss B's face was expressive of marked amazement as she looked first at Miss A and then the bare spot on the floor. She started to say, "But there is no——" and her facial expression changed to one of complete bafflement as she turned to Dr. C and heard him say to the author, "That is not a valid hypnotic response. The dog is a collie and not a Scottie, and he is standing up and wagging his tail. I'm a collie fancier myself, and I ought to know. How do you suppose she got the idea of a Scottie, since you didn't suggest it?"

Placatingly the author explained that possibly Miss A did not know the breeds of dogs any better than the author did and he asked Miss A to explain to Dr. C what kind of a dog it was, *pointing to Dr. C* (thus insuring rapport between the two). Slowly Miss A turned to Dr. C, and as she did so Dr. C said, "Her facial expression, her head movements are hypnotic, but that seeing a Scottie instead of the collie—oh, she is hallucinating the collie as a Scottie." As he was making these observations, the author demonstrated catalepsy in Miss A's left arm, an item she did not seem to notice. Dr. C noted this and affirmed it to be genuine catalepsy and completely valid. While he was making this statement, the author slipped out of his chair and stood behind Miss B and whispered to her that she should attempt to force Miss A's arm down. She did so but received no response from Miss A except an increased rigidity, which Dr. C noted by saying, "Her arm catalepsy is becoming more rigid," speaking to the author as if the author were still sitting in the chair beside Miss A. Nor did he give any evidence that he saw Miss B and what she was doing, nor did Miss A seem to see or note Miss B's act. Neither did Miss A seem to give attention to what Dr. C said to the author, nor did Miss A note the author's departure from his chair.

Slowly Miss A explained to Dr. C that the dog was a Scottie, explaining fully why it was a Scottie—and she apparently knew a great deal about that breed.

Dr. C disputed her very courteously, pointing out that the dog was a collie—in fact, that it resembled one to a marked degree that he had once owned. Dr. C made several side remarks to the author as if the author were still sitting in the original chair, commenting on Miss A's trance as valid, but Miss A gave no evidence of hearing these remarks, since they were not addressed to her. While this exchange between Miss A and Dr. C was continuing as well as the side remarks to the author as if he were still sitting in the original chair, the author had stepped over to Dr. C's right side, lifted his right arm up, and left it in an awkward cataleptic position. Then with his left arm the author reached over in such a fashion that the audience could see but Miss B could not, and gave a lock of Miss B's hair a sudden jerk; at just a later moment with his right hand he gave a

similar sudden, even harder jerk to a lock of Dr. C's hair. Miss B looked up at the author in amazement, too startled to say anything, but her facial expression was one expressive of pain. As she looked up, she saw the yanking of Dr. C's hair. Immediately she looked at Dr. C's face and saw no evidence that he had felt the pulling of his hair but was continuing his argument with Miss A about the identity of the dog. (Miss B was beginning to see ALL the hypnotic phenomena, so she thought). The audience was now well aware of the fact that Dr. C had unaccountably and inexplicably developed a profound somnambulistic trance. He remained completely unaware of the audience and of Miss B and continued apparently to see and to address the author as if he had not changed his position. Miss A also continued to react as if the author were beside her.

Reaching down from behind, the author took Miss B's left hand and moved it back and up and nodded his head toward Miss A's head. gingerly Miss B took a lock of Miss A's hair, gave it a tentative tug, and then several much harder tugs without receiving any response from Miss A and without interrupting the obviously interesting discussion Miss A and Dr. C were having about collies and Scotties. Nor did Dr. C notice this—in fact, neither Miss A nor Dr. C seemed to be aware of Miss B, an item of fact bewildering to her and most obvious to the audience.

At this point the author began speaking to the audience from behind Dr. C, explaining what had happened. Everybody including Miss B noted that the author's speaking to the audience did not interfere with Dr. C seeing and speaking to the author as if in the original chair, even while the author was addressing the audience from behind Dr. C. Dr. C continued to discuss Miss A and her behavior, continuing to speak as if the author were still in the original chair, and was obviously unresponsive to the sound of the author's voice as he addressed the audience. The author offered the explanation to the audience, that although they had witnessed in full an orderly systematic trance induction, they did not know that they were so doing, and that they were merely overlooking what was being done while waiting for the author to do something else more in accord with their general expectations. (Miss B heard this, too, but made no apparent personal application of the remark to herself).

It was explained that the seemingly *casual incidental explanation of various trance inductions* was only an easy way of effectively capturing the attention of the subjects and narrowing down their field of conscious awareness. But since the audience was there to *hear* and to *see* what the author as well as the subjects were doing, they had at least some mental counterset for any trance induction for them at the time. At this point one of the audience raised his hand and, when nodded permission to speak, he declared that "the counterset was not sufficient for me, because I saw *my boat* there instead of a dog, and that surprised me so much that I *came back* to the audience again. But I suppose I did have some counterset, as you call it, or I wouldn't have come back." (Later several others approached the author and reported that they too had hallucinated but only momentarily and then had "returned" to watch anew the demonstration.)

The author continued, "Then when I explained the 'My-Friend-John Technique,' I was careful to emphasize the importance in inducing hypnosis of speaking slowly,

impressively, and meaningfully, and literally to ‘feel’ at the moment within the self the full significance of what was being said. For instance in my own use of the hand-levitation technique I soon learned during the process of developing that technique in my University of Wisconsin days that I almost invariably would find my hand lifting and my eyelids closing. Thus I learned the importance of giving my subjects suggestions in a tone of voice completely expressive of meaningfulness, expectation, and of ‘feeling’ my words and their meanings within me as a person. When Dr. C volunteered and gave his own history of personal disappointment about being hypnotically induced, and then had spoken of his doubts of validity of the hypnotic phenomena his subjects manifested, I recognized this statement by him as one of genuine interest and significance to him. I also recognized the opportunity it afforded to me to develop what might be called a ‘natural field experiment’ where nobody, especially neither the subjects nor the audience, could anticipate what would happen, nor could the subjects, who were strangers to me, conceive that an experiment might be done or even to conceive of what the experiment would be nor even what the behavior would be that might develop. For that matter *neither could I predict it.* All I knew was that I wished to demonstrate hypnotic phenomena, that I would try to utilize experimentally whatever phenomena I could elicit, and that I would rely on my knowledge of possible responses to my choice of words, emphases, and inflections to formulate my experiment ‘on the spot.’ If the experiment failed, nobody would know, and I could try other variations, since I could be reasonably certain of securing at least one hypnotic subject and some hypnotic phenomena, even if I did not know exactly what they would prove to be.”

“My-Friend-John Technique is an excellent measure of teaching resistant subjects to go into a trance. I demonstrate it to the resistant patient who comes for therapy but resists, and I demonstrate it so thoroughly and carefully that as he watches me induce a trance in my purely imaginative friend John, he resents so much the waste of his time and money, and becomes so unwittingly responsive while I am hypnotizing ‘John,’ that he follows ‘John’s’ example and develops a trance without needing to offer resistance. This, therapeutically, is an excellent beginning, since he came for therapy and not a contest. I use it also to teach self-hypnosis in the heterohypnotic situation, and with subjects who are to rehearse at home in relation to study, migraine, obesity, etc.

Therefore, when Dr. C spoke of his doubts of the validity of trance phenomena, I asked him to pass judgment upon the validity of Miss A’s trance manifestations. While this was a comprehensible statement to him, it was also an absolute, direct, simple, but emphatic declaration that Miss A was going to go into a trance, and there was no way for her to resist or dispute or even to question that statement, since I had not spoken to her but to Dr. C. But it was also a statement rendering him responsible for the task of evaluating Miss A’s behavior adequately. What this implied neither he nor the audience had time to analyze. I was relying on my past experience. How does one validate another’s subjective experience? By participating, if possible! For example the swimmer says the water is cold. One can dive in and find out, or at least put in a finger or a toe! But the situation here was different. One cannot validate any hypnotic hallucination as one can a swimmer’s subjective reaction to the temperature of the water. But Dr. C felt ‘blocked’ about hypnosis for himself and in doubt about the ‘validity’ of some of the hypnotic

phenomena he himself elicited in his own practice. He was not ‘blocked’ on the possible validity of hypnotic phenomena, nor was he ‘blocked,’ to use his own words, when he was asked to ‘validate’ the genuineness of Miss A’s hypnotic behavior. He expected hypnotic phenomena from Miss A, and to validate them by his cooperative critical effort. Neither he nor the audience realized that the suggestion that his effort to validate Miss A’s hypnotic behavior required much more than a mere tentative questioning of the age, the kind, and the *breed* of a dog, the actuality of which was not the issue, *just its attributes*. To do such validating necessitated a dog, since Miss A had hallucinated one, therefore Dr. C, who had no mental block or counter-set against validating Miss A’s responses, found that the only way he could ‘validate’ her judgment as to *kind, breed*, and *age* was to have a dog by which to make such a comparison. Hence he was unwittingly placed in the same situation as had been Miss A, and neither she nor he nor the audience had time to realize this nor to analyze the manifold implications of that seemingly simple request to Dr. C that he *exercise his very best judgment in evaluating Miss A’s responses*. His ‘*very best*’ required his full potentials.”

“Then with Miss A in a state of complete expectation, merely awaiting whatever suggestion I chose to give her, I mentioned the ‘Surprise Technique.’ I did not ask her to see a dog. I just asked her to tell me *the kind, the breed, and the age of that dog there*. It was not a question of whether or not a dog was there. The question was *kind, breed*, and *age*, and since she was prepared to accept my suggestion, her only way to do so would be to ‘reach’ into her unconscious mind and thus to project vividly a visual memory of a dog. To do this she had to go into a trance. How long does it take to develop a trance? How long does it take to develop physiological sleep? If you are sufficiently tired physically, you can fall asleep as your head hits the pillow. When you are sufficiently prepared psychologically, you can develop a trance just as quickly.”

“As for Dr. C, what happened? He was adequately prepared for the development of hypnotic phenomena by Miss A. He actually fully expected the author to demonstrate hypnosis. He had stated that he could not be hypnotized, and his statement had been apparently accepted at face value; thus he had no need to offer any resistances. But he did have a task to do, which was *to cooperate with the author by judging the validity of hypnotic phenomena he expected Miss A to develop*. He, too, had a strongly expectant state for hypnotic phenomena, and he merely assumed that they would derive from Miss A, possibly from Miss B. He did not even recognize that he too might be a source, and hence he had no need to offer resistances. Instead there was a long history of intense wanting and striving to achieve hypnosis, and now an unrecognized opportunity to achieve. The whole psychological situation favored the author’s hopes.”

“Then when Miss A hallucinated a dog, Dr. C found himself in the position of validating that hallucination. How does one validate? Naturally by a comparison of the thing in question with a known comparable thing. One does not compare a dog, even an imaginary dog, with a carpet, a floor, or a chair but with another dog, or a mental image or a memory of one. Hence Dr. C, without ever realizing it, was forced into the situation of comparing Miss A’s projected visual image with his own inner understandings, and this was best done by a projected image of a dog of his own memory. To do this (and he

was ready and waiting to do it, but he had not analyzed the processes by which it would have to be done), he promptly developed a trance state, and thus he could make a comparison of his own trance visual hallucination with Miss A's verbalized description of her subjective hypnotic experience. The fortuitous circumstance of the comparison of a Scottie and a collie gave rise then and there to an elaboration between them of the situation, and this occurred, aided by incidental remarks by the author, unplanned and arising out of the situation itself."

"Why a dog? Because general information indicates that dogs are much more commonly liked and owned than cats. But if Miss A had used a cat, Dr. C could still have used his collie if he preferred dogs, *as many repetitions of this particular experiment have revealed*. Subjective experiences were to be validated, not an object in reality, and Dr. C met the task imposed by Miss A, a subjective experience, adequately but in terms of his own visual and mental images and memories."

"I like to do this type of experiment when nobody knows an experiment is being done and when I myself do not know what will happen. Thus I have in the past carefully given suggestions directed to elicit visual hallucinations, and secured auditory ones, e.g. 'I can't see anybody there but I can hear people talking' (there were no people and no talking); also I have suggested that they listen to *that piano there* and had them explain, in bewilderment at my ignorance, 'that is an electric organ.' And the subject sees me take a closer look, thus to correct my 'obvious mistake.'"

All that I hope to know in most such experimental situations that I devise is the possible general variety of psychological processes and reactions I would like to elicit but do not know if I shall succeed in so doing, nor in what manner this will occur. Then, as the subjects respond in their own fashion, I promptly utilize that response. To illustrate from another medico-dental lecture-demonstration situation, in discussing ideosensory phenomena, I asked my intended hypnotic subject, a college graduate, her favorite recreation. She answered, "Well, I suppose it is driving about the country and enjoying the landscape." (She lived in Colorado.) Therefore I suggested that she might look "out of the side window over there at *that mountain range* and at *that mountain* with the *two deep ravines*, one on each side, and the *V-shaped pine forest* running up its side," pointing impressively at a bare wall. To my astonishment and that of all the others present she replied, "That's not a car window. That is my kitchen window and that's me washing dishes and listening to the hi-fi. It's playing my favorite piece, the one that reminds me of skiing," and she began a soft humming, interrupting that to explain to me, "Doesn't that music remind you of skiing down the mountain, following those long, lovely curves, just like the long, lovely sweeping tones of the music on the hi-fi. And oh, my goodness, that's impossible, but if you look out of the window, you can see the mountain where we always go skiing. And it's close enough so I can see it all. Look at that huge boulder that the ski trail curves around. Please, may I have some paper and pencil, I must sketch that scene. " This she did, glancing up from the paper from time to time to check her "visual impression" of the "scene."

This subject was the wife of one of the dentists in the audience. He had often attempted, but futilely, to use hypnosis on her for dental work, and his colleagues had had similar failures on her. She had come to the meeting in his company only after making him promise that she would not be used as a subject. The author, in seeking volunteers for demonstration purposes, had asked "the pretty girl wearing the white hat in the back row" to come up to the platform. She had done so but explained immediately that she did not want to be hypnotized. She was earnestly assured that she need not go into a trance unless she wanted to, but that the author liked to have a number of volunteers when he demonstrated hypnosis, some to demonstrate the ordinary waking state, some to demonstrate the light trance, the medium trance, and the deep trance as well as varying types of hypnotic responses. She readily volunteered to be a "waking demonstrator." This offer was accepted, and she was told that since her husband used hypnosis, she might like to watch the other subjects who had volunteered and to watch the reactions of the audience as they observed the demonstrations and reach understandings of how to talk to their patients to convey meanings effectively. As she alertly watched both subjects and the audience and listened to the author's emphasis upon saying things meaningfully, he explained that Mrs. X was as wide awake and alert and unhypnotized as would be any new patient who entered the office unsophisticated in hypnosis. In the dental office a remark appropriate to the situation could be said as earnestly as the author, in his discussion of ideosensory phenomena, could turn to Mrs. X and make a seemingly casual remark, or ask a seemingly casual question to effect a Surprise Technique Induction, as he would now demonstrate. It was at this point that the author put his question about her favorite recreation, by which there were elicited a succession of hypnotic phenomena at the ideosensory level in a somnambulistic trance.

What did Mrs. X's behavior signify? She was interested in hypnosis; she was interested in what was being said to the audience; and she was interested in what they were understanding. This, the author recognized, would be the case, and at what he judged the right moment, he explained what he was going to do and she, in her own wish to cooperate, did so but purely in terms of her own experience. She did not accept the suggestions offered her by the author; she accepted only the opportunity offered to reach understandings in her own way, taking advantage of the author's suggestions as a means but nothing more.

She was allowed to finish her sketch, and then she cooperated in demonstrating various other phenomena of the somnambulistic trance. The sketch was passed to the audience; her husband and several others recognized the scene (she had done much sketching and painting), and she was then awakened by the simple process of leading her to the edge of the platform where she had come up and saying to her, "And now, *you in the pretty white hat*, what is your name?" This had the effect of reorienting her to the moment at which she had arrived at the platform with a consequent amnesia for all trance events. (This measure of reorientation in time by reawakening trains of thought and associations preceding trance inductions, in this author's experience, is far more effective in inducing posthypnotic amnesia than direct, forceful suggestions for its development. One merely makes dominant the previous thought patterns and idea associations.) She was asked to

take a seat, a different one than that which she had previously occupied, thus to preclude any chance re-associations.

She was questioned indirectly by the audience. People whom she did not know asked her about her hi-fi set, others about her skiing, the boulder around which the ski trail curved, and finally she was shown her sketch while the author sat back passively. She was bewildered by the questions but showed no evidence of any recollection of trance occurrences, and when shown the sketch, she named the area, spoke favorably of the excellence of the sketch, and was suddenly very startled to see her name signed to it. At first her facial expression was one of complete bafflement and blank surprise; then she looked at her watch, listened to it, compared it to the watch of the girl next to her, and then turned to the author and asked simply, "Have I been in a trance?" Her question was answered with a simple affirmative.

She paused thoughtfully, then looked at her husband with a pleased smile, and said, "Everybody will soon know so I am going to tell it now. I'm pregnant now and I want to have my baby under hypnosis, but I was absolutely convinced I couldn't be hypnotized. I always tried so hard to go into a trance and I always failed. I didn't want to come today for fear my husband would want me to volunteer, and I didn't want to fail again. So I stuck close to him and even made him come late so he wouldn't have a chance to ask you to hypnotize me. I just couldn't take another failure. But when you asked me to come up and mentioned my hat, I knew it was just a coincidence and I was relieved when you told me I could demonstrate being awake. I knew I could do that. But what happened? Can you put me in a trance again so that I can have my baby under hypnosis?"

She was told simply that she did not need to have anybody "put" her into a trance, that it was a process of learning within herself, that all she needed to do to go into a trance was to look at her sketch and to arouse, by reading her name. Another way would be to listen to the hi-fi, even though it were 100 miles away, and go into a trance and awaken at the proper time. She promptly picked up the sketch, obviously developed a trance, slowly looked downward at the signature and aroused, and apparently realized she had just aroused from a trance. Then she cocked an ear as if listening, her eyes closed; she started to beat time with her foot, and her husband remarked, "She's keeping time to her favorite piece." Shortly the beating stopped, she awakened, thanked the author most graciously, and, picking up her sketch, left the platform and returned to her seat beside her husband as if she had no further contribution to make.

Two years later, when lecturing to that same group again, she was present. She introduced the author to her baby and explained that she was a perfect obstetrical and dental patient, an item of fact her husband confirmed.

Now back to Miss B: After having demonstrated and discussed matters at length with the audience, to which Miss B tried to listen while listening also to Miss A and Dr. C still discussing the merits of Scotties versus collies, there is another item that must be discussed. Turning to Miss B, I said, "When you came up you said you didn't think you could be hypnotized. Now what I'm wondering [note that "wondering" has nothing

apparently to do with her going into a trance] is, what you would like to see, a dog?" "Dog" was said with a rising inflection as if to cast doubt on seeing a dog, since if there is going to be any doubt, it should be mine and not that of the subject. She laughed and said, "No, I'm a cat lover, and I have one named Snookie."

"What is cute about Snookie?"

"Oh, you ought to see Snookie playing in the living room."

"Oh, is that Snookie there, playing with that catnip mouse?" pointing again and looking intently at the bare floor as if I actually saw the catnip mouse.

Again the suggestion was worded in such fashion that the question as understood by Miss B was not "Is there a cat?" But "*Is that a catnip mouse being played with?*" To answer that question she had to see a cat first, and the preceding conversation had set the stage and had evoked strong personal memories.

She answered that it was *not* a catnip mouse but a *ball of yarn*. Again a Surprise Technique was used by asking a sudden question in a suitable situation, reply to which required an absolute affirmation of a postulated or implied hypnotic phenomenon in order to answer the question. One can speak to a stranger and say, "Here is a blackboard and a piece of chalk, and if you don't mind, I would like to know if you are right- or left-handed." Even if a verbal answer is given instead of accepting the chalk with the dominant hand and writing, there is certain to be some involuntary motor response such as looking down at the dominant hand, or a slight revealing movement will be made. This will occur even if the stranger otherwise gives only a cold, blank stare.

After various further demonstrations of hypnotic phenomena using all three subjects, with all three in rapport with the author-Miss B directly and Miss A and Dr. C with hallucinatory overtones-Dr. C and Miss A in rapport directly with each other only, and Miss B in rapport with the author only, the next problem was that of arousing them.

Resuming his original seat the author propounded the task to the audience as, "Now comes the problem of arousing them. You will all note that I apparently will not do so, therefore I urge you to watch the subjects carefully, to listen carefully to what I say, and to speculate upon the implications."

Turning to the subjects the author remarked casually but with veiled emphases "Well, Miss A and Miss B and Dr. C, since *we are all here* and the *audience is waiting*, don't you really think *I ought to begin* the demonstration for them?"

All three aroused at once, but *reoriented to the time of their original arrival on the platform*. Miss A smiled and said, "Well, I suppose since I'm the only one who wants to go into a trance, you had better start with me." Miss B, when I glanced at her, said, "I'm willing to try," and Dr. C answered, "I wish I could."

Obviously all three had a total amnesia for all trance events. An arousal, a reorientation in time, and an amnesia were all definitively implied by the three italicized statements in my remarks to all of them.

A stranger in the audience asked Dr. C, "Did you ever have a favorite collie?" Dr. C replied that he had had many favorite collies but of them all he liked best one that had died some years previously. Someone then said to Miss A, "So your favorite dog is a Scottie!" Her startled reply was, "How did you know that?" Another member of the audience who did not know Miss B asked her why she had never bought Snookie a catnip mouse. Immediately Miss B replied that she had, but that Snookie had torn it up. Then, with startled bewilderment, she inquired how the speaker knew about Snookie.

Dr. C had looked puzzled at the question about a collie, listened with bewilderment to the questions put to A and B, suddenly looked at his watch, and remarked in a bewildered fashion, "There's more than an hour gone by since I came up here. Everybody seems to know personal things about us; none of us seem to understand how they could be known. Does that mean that we all have been in a trance and have amnesia for it?" looking toward the author.

Instead of answering him the author addressed the audience by saying, "Of course the best answer to that question will be a *levitation of the right hand*." The three subjects appeared nonplussed by this seemingly nonpertinent statement.

Dr. C was the first to note his responding right-hand levitation, then looked at Miss B and Miss A in obvious amazement, since they too were showing the same phenomenon. Their facial expressions were those of startled amazement when they too saw what was happening. Then the question was asked, while the author looked at the back of the room, "Can you stop it?" All three noted their hands continuing to levitate. Then several in the audience noted the same thing occurring to them. Then the author remarked casually, "Thus one can get answers unknown to the self in various ways." To everybody's astonishment all levitation ceased and the raised hands dropped. The implication of the author's remark was that full reply had been made, hence there was no need to give further instruction. Astonished comments were received from several of the audience who discovered their own right-hand levitation.

In a somewhat comparable way the author, before an audience of visiting physicians, the state hospital staff, medical students, and registered and student nurses, had asked a student nurse to volunteer as a subject. She had demurred, stating she would like to but that she was too self-conscious to come up in front of so large an audience. To this the author replied, "So you would like to [true], you are too self-conscious to come up *in front of the audience* [nobody realized the *implication* of those italicized words, and the statement was also true], but *that is all right*, all I want you to do is, Just look at *that picture right there* on the wall, and I don't know *whose it is* nor in *what room it is* [pointing and looking intently at the bare auditorium wall]." Slowly the girl turned her head in the fashion of a deeply hypnotized subject, looked at the auditorium wall, and answered, "That's Lily's picture, and it's hanging right over the television set in her

living room." I asked the nurse to come and sit beside me and to tell me about Lily. She came down the aisle, and after a few remarks I asked her to close her eyes and to help me with some work I had to do. After demonstrating various other phenomena, including a discussion of the Surprise Technique, I aroused her.

Her startled reaction was delightful to behold, and she asked, "How did I ever get up here?" Reply was given, "You are a remarkably good hypnotic subject and you will be able to teach the doctors and nurses here a lot. Later a correspondence with her revealed that she had asked for a full account from her fellow students, found it difficult to believe, and hence wrote to the author asking for a summary. She was most pleased with her experience. In explanation her actual willingness to be a subject, her unawareness that her seat in the audience would not be a barrier to hypnosis, although the request to "come down in front" implied that it was, and the burden so inexplicably thrust upon her to place a meaningful value upon an actually meaningless suggestion, compelled her to construct, by an outward projection, a meaningful response through the measure of entering into hypnosis and the visual projection of an actual memory.

Another example which may be cited of the "Surprise Technique" is of a slightly different character in that it depends upon the utilization of minimal cues entirely. This instance was a completely impromptu experiment in a university auditorium before a medical and psychological group, most of whom were sophisticated in relation to hypnosis, although some had no knowledge of it. Minimal cues not recognized by the audience or by the subjects were used to elicit both a deep trance state and specific responses for which no recognizable cue had been given that was apparent to the audience, and to which the subjects had to make a rather unusual response inexplicable to both the audience and to the subjects until proved by demonstration.

The situation was as follows: The author upon entering the auditorium by way of the door at the front of the room noticed by chance some colored chalk just behind the speaker's stand on top of the desk behind which the speaker could stand, and a blackboard on the wall behind the desk. No further thought was given to this at that time. Instead the author looked carefully and appraisingly over the audience, as is his customary practice, thus to make note of anything of interest to him. In so doing near the rear of the auditorium he saw two young women, one just slightly further back than the other, one on one side of the room, the other on the opposite side. Both girls' absorbed and attentive faces led to his clinical judgment that they were "good hypnotic subjects."

The author was not scheduled to speak, but he did take a seat in the front row in order to observe the speaker of the occasion, who was to discuss hypnosis and to demonstrate trance induction with a trained subject.

At the conclusion of the presentation the author was asked if he would offer a few comments. Since the demonstration had proved decidedly unsatisfactory, even from the speaker's point of view, the author accepted the invitation. In his comment he spoke adversely about the direct, emphatic, and authoritative suggestions that had been employed and indicated that no real effort had been made to meet the subject's seeming

uneasiness, self-consciousness in being before an audience, or his possible resentments or resistances toward the autocratic way in which he had been handled. The author stressed the importance of *gentle*, *permissive*, and *indirect suggestions*, emphasizing that direct suggestions may give rise to resistances.

The author's comments were somewhat resented by the speaker, perhaps because he felt "let down" by his hitherto cooperative subject. At all events the speaker suggested rather insistently that the author demonstrate "a gentle, permissive approach and indirect suggestions" and that he choose someone from the audience as his subject. Rather reluctantly the challenge was accepted, and then it was realized that there might be the possibility for an experimental procedure of which only the author could possibly know in general what he hoped could be achieved. It was an excellent setting for a natural field experiment with only the author cognizant of his intentions, and under observation by the entire audience, some of whom were not too friendly.

Immediately the author had three chairs placed in a row in front of the desk. Most emphatically he stated that the middle chair was *his* since he preferred to lecture while sitting down because of his residuals of anterior poliomyelitis. With no explanation the author took two handkerchiefs out of his pocket and stepped around to the rear of the desk. There, with his hands and their activity completely *out of sight of everybody*, two pieces of colored chalk were selected and rolled up separately in the handkerchiefs, and then one of these handkerchiefs was placed on the floor to the left of the left-hand chair and the other on the floor to the right of the right-hand chair. Even if anybody knew about the colored chalk, nobody could know which pieces had been selected and wrapped up in the handkerchiefs. Upon sitting down in the middle chair, the author took hold of his right wrist with his left hand and lifted his right (and obviously weaker, but not that weak, as was made evident later) arm over and indicated with his right hand that "This chair is for one subject." Dropping his right hand in his lap, he touched the right-hand chair with his left hand and said, "And this chair is for the other subject." No explanation of any sort was made of the peculiar placing of the handkerchiefs or of this crossed-arms designation of the chairs.

Thus everybody had seen a number of things done that could cause wonderment, intense watchfulness, and bewildered attention. There was the placing of three chairs with the middle one specifically identified as the author's, and the other two designated in an inexplicable manner as the chairs for two unspecified subjects. Then there was the remarkably odd item of handkerchiefs rolled up as if containing some unknown objects secured by the author in full view, except for his hand activities, and so peculiarly placed with no proffered explanation.

Then I began to discuss as lucidly and as informatively as I could the nature and values of soft, gentle, indirect, permissive techniques, the use of inflections and intonations, of hesitations, pauses, of a seeming groping for words to elicit efforts to speak for me, and of the giving of minimal cues and hints that the subject could cooperatively elaborate and act upon. I mentioned that I had already specified that there were two chairs for subjects and that I had said "that one subject will sit here," again indicating the left-hand chair by

using my right hand to indicate it and “that the other subject [touching the right hand chair with my left hand] will sit here.” Thus twice I had touched the left-hand chair with my right hand and the right-hand chair twice with my left hand. Although the audience was most attentive, as later questioning disclosed, no one placed unduly remarkable meaning upon this twice-done crossed-arms designation of the subjects’ chairs. Yet everybody saw it and, as many later stated, related it to the more easily comprehended physical handicap of the author, so gratuitously mentioned.

Throughout my comments I was exceedingly careful to let my eyes roam constantly about the room in what appeared to be purely random fashion, glancing at the side aisles, following them with my eyes from in back of the room to down in front of the room, looking at the floor just in front of me and also further distant up the middle aisle, at the walls, the ceiling, the “No Smoking” sign on the right-hand wall, the chairs beside me, the window on the left-hand wall through which I could see a tree. Nobody could realize that as I paused for words, looking here, there, and everywhere that I was careful to look no member of the audience directly in the face with two exceptions, the two young women I had first noted. The impression was given that I was looking freely and comfortably at everybody and everything as I talked. Nor did anyone become aware, because of the randomness of my behavior and utterances with meaningful content, that it contained two separate rigid sequences. One of these sequences was looking out of the left wall window, shifting my gaze to look directly at the girl’s face and eyes on the left-hand side of the room, at the same time so choosing my words so that I would be saying something like “a minimal cue means to you—” or, “as permissive suggestions are given, you—,” always something that could be taken personally, following such utterances with a visual following down of the left side aisle to the front of the room and over to the right-hand chair, although seemingly I was addressing all of this to the entire audience. The same sort of a sequence was used with the girl on the right-hand side. Each time I looked-at the “No Smoking” sign I glanced at her face and her eyes, making suggestions comparable to those given to the other girl; for example, “When you receive a suggestion however given, you will act upon it,” or, “Minimal permissive suggestions to you can be highly significant,” and this would be followed by a careful visual following of the right-hand aisle down to the front of the room and over to the left-hand chair. By repetition every effort was made in these remarks, seemingly addressed to the entire audience, to give both girls a sufficient number of the *same* wholly comparable suggestions. Thus the audience in general had a feeling of being spoken to and looked at as a group, but the direct look at the girls and the use of the pronoun “you” had an unrecognized, unrealized, but cumulative effect, and the sequence of events was consistently the same for each girl although at irregular intervals.

Finally I felt from the rigidity of their facial expressions and the failure of their blink reflex that all was ready. I stood up and walked up the middle aisle to the second row of seats, and glancing at the “No Smoking” sign and then at the girl on the right, saying slowly, “Now that you are ready—,” pausing, taking a deep breath, slowly shifting my glance to the back wall, then looking out of the window on the left side of the room, then at the girl in the left side, again saying, “Now that you are ready — (a pause) — slowly now stand up and *walk down and take your proper seats.*”

The audience looked all around, was startled to see the girl on the left and the girl on the right arise and walk slowly down the side aisles while the author stared purposely and rigidly at the rear wall. Behind his back the two girls passed each other, the one from the right taking her place in the left-hand chair and the girl from the left seating herself in the right-hand chair. When I judged them as having reached their chairs by the stopping of their footsteps, I said very gently, "As you sit down, close your eyes and sleep very deeply and continue to sleep in a deep trance until I tell you otherwise."

After a brief wait I turned and sat down between them and remarked to the audience that I had asked the two girls to sit down in the *proper chairs*. To indicate that they had responded correctly I then asked the speaker who had asked me to demonstrate indirect trance induction and indirect suggestions to prove that they had seated themselves in the appropriate chair. As he looked blankly at me, I asked him to examine the handkerchiefs beside each chair. He unrolled the handkerchief beside the left chair and found a yellow piece of chalk; the girl was wearing a yellow dress. The chalk in the handkerchief beside the right-hand chair was red, and so was that girl's dress. To get to the *proper chair*, the girls had each had to go to the further chair and in so doing to pass each other behind the author's back while he was rigidly staring at the rear wall.

Various phenomena of deep hypnosis were elicited from each, and they were then aroused from the trance state by simple suggestion. They manifested an amazed, startled reaction at finding themselves in front of the audience, and questioning from the audience disclosed that each had a total amnesia for all trance events including rising from their seats, coming to the front of the room, and sitting down in the chairs.

Systematically they were questioned by the audience, and both explained that something, they knew not what, made them feel that they were being personally addressed by the author and that they had unaccountably found themselves taking an inexplicable interest in the chair in which they now found themselves sitting.

They could give no reason for these statements. Even when another trance was induced in them, they could only state that the author in some way gave them a definite feeling that they were to go into a trance, but they could not tell what it was that gave them that feeling. They did state that the elaborate but inexplicable behavior with the handkerchiefs had captured and fixated their attention. Upon being asked why that had been done and for what purpose, they looked beside the chair to see whether the handkerchiefs were still there. (While they were still in a deep trance, Dr. X had returned the pieces of chalk to their original place and the handkerchiefs to the author). Dr. X then retrieved the chalk and stated, "These were wrapped up in the handkerchiefs." Each made the feminine response of saying "And I am wearing a red (yellow) dress so the red (yellow) chalk was by my chair! But I didn't know that, I didn't even know there was chalk. Did anybody else?"

Only the author knew. Much discussion followed, but it was not until the tape recording was played back repeatedly that the two girls, who were graduate psychology students,

were reminded by the repetitious sequence of certain utterances and of their memories of the sequences of the author's visual behavior. Soon various of the rest of the group could also recognize the rigid sequences they had previously ignored. Unfortunately the girls were not tested separately, but their recognitions were first of the sequence directly applicable to the self and then for the sequences directed to the other.

Suddenly one of the girls said, "But you can move your right hand more freely than you did when you forcibly lifted your right hand and put it on the left chair, and then elaborately leaned over to put the left hand on the right chair. That crossing-over was a cue too."

Item by item they reviewed the tape recording, noting the extensive repetition of ideas which should have made the lecture boresome, and they reached the conclusion that the unanswerable puzzle of the meaningfulness of the handkerchiefs had served a large role in keeping everybody's attention at a high level, and the entire audience agreed that this was possible. It was also noted that there were many variations in the utterance of the same ideas. The author's own tension also unquestionably played some role.<sup>1</sup>

Later that day each girl requested a direct hypnosis of the self while the other watched, speculated, and discussed the phenomena under observation.

Actually while this experiment was a Surprise Technique, not only to the subjects but to the audience itself, it was simply a matter of systematically combining auditory, visual, and intellectual conditioning of the subjects to elicit certain predetermined responses knowable only to the author. The tape recording of the demonstration was played to determine if the words "red," "yellow," "walk down," or "girls" or "girl" had been used. They were missing from the tape recording, even as were the words "chalk" and "color."

One additional comment should be made, and that is that this sort of seemingly casual conversation loaded with minimal cues has many times been practiced by the author and his oldest son, sometimes on each other, more frequently upon others as a definite game or means of entertainment by enjoying intellectual ingenuity.<sup>2</sup>

One final paragraph might be added. To the unsophisticated onlooker, ready to believe in mind-reading, thought transference, the power of mind over matter, and the "dominance over the will" of another, the above material could deliberately and fraudulently be made to appear as evidence of such; or it might even be innocently so interpreted by an uncritical lecturer or experimenter unaware of the many minimal cues given unwittingly by the naive but honest worker.

Examined carefully, observed in full detail by the astute critic, no more was done than to utilize the experimental learnings and the innate capacities of the individual to receive and to accept and to act upon stimuli, recognizable and understandable to others but ordinarily overlooked and not appreciated, even though sensed.

They constitute, however, important and often decisive factors in the actions and adjustments made constantly in daily life, even though these cues and minimal stimuli may not reach the level of conscious awareness.

## **SUMMARY**

Accounts are given of lecture-demonstrations on hypnosis before a general medical group, a medico-dental group, a medical-psychological group at a university, and a state hospital group with invited guests. In each instance opportunity arose for a natural field experiment to be conducted.

In the first account an "impossible subject," a volunteer subject not believing in hypnosis for herself, and another volunteer interested in hypnosis for herself were used.

The technique employed for all three subjects was a "Surprise Technique," for which an adequate preparation was made by an overelaboration, presumably for the audience but actually for the subjects themselves, based upon an extensive explanation of "My-Friend-John Technique."

In the second instance the "impossible" subject was fitted into the demonstration as a waking subject showing the usual alert behavior and then transforming her cooperative behavior into hypnotic by a "Surprise Technique," thereby discovering a hoped-for but despaired-of hypnotic ability.

The third instance was a totally unsuspected trance induction in a willing but hesitant subject who did not expect hypnosis. It occurred in response to a meaningfully given, although in the situation meaningless suggestion, to which she had to supply the meaning from her own experience by the special wording of a problem posed for her.

The fourth instance was a natural field experiment in which a Surprise Technique based on minimal cues not recognizable by the audience or the nonspecified subjects resulted in two somnambulistic subjects who could account neither in the waking nor the trance state for their entering the hypnotic state, nor could the audience. A repeated playing back of the tape recorder allowed the discovery of the minimal cues, first by the subjects, and then by the audience despite acute attentiveness throughout the entire induction process.

In all instances the author endeavors to indicate the probable psychological factors involved in eliciting the trance responses and to illustrate natural field experimentation.

In brief, in any experimentation in hypnosis, full attention should be given the psychological implications and minimal cues.

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<sup>1</sup>Much later a transcription of this tape recording was made. To the reader's eye it was abominably repetitious, and the sequences of behavior relating to the two girls were easily detected.

This same transcription could be read aloud with adequate and deliberate impressiveness and could be made to sound most meaningful, but such reading rendered it actually uninformative. The minimal cues of the total situation and of the author's behavior, the chairs and the handkerchiefs were vital for any effective understandings.

Edited into good, clear, lucid, grammatical English, no matter how impressively read, it was meaningless.

Later by several months an associate of the author read aloud as best he could, so far as possible without mimicking the author, the unedited transcription of the tape recording separately to each of the original two girls. They were puzzled by his request but agreed willingly though wonderingly. Each declared that they had experienced but resisted a strong tendency to go into a trance. Later he read that same tape as expressively as he could to both an unsophisticated and to a group of trained subjects, without describing to them the original setting but endeavoring to duplicate the author's behavioral patterns in a prearranged room. The unsophisticated subjects were merely puzzled. They did have a feeling that they must have "missed something."

All of the half-dozen trained subjects declared that it had produced in them "very definite hypnotic feelings, as if I wanted to go into a trance." Some stated "Several times I felt like changing my seat. Also, the putting of the handkerchiefs on the floor beside the chairs next to you had the effect of making me listen most intently." The others gave less comprehensive but comparable statements.

The reading of the well-edited transcription was meaningless to a third group, but was recognized by the other two groups as a "cut-down," "meaningless version of what you read before." Yet the actual reading setting itself was identical. The minimal cues arising out of the totality of the original setting and the original character of the entire communication had been destroyed by the editing.

<sup>2</sup>Perhaps a very simple and easily understood example can be given to clarify this type of accumulation of minimal cues leading to a specific response: The rest of the family was out for the evening, I was ill but comfortably seated in a chair. Bert, aged 17, had volunteered to remain at home to keep me company although there was no such need. A casual conversation was initiated by Bert in which he mentioned the rush and turmoil of getting everybody dressed and fed and everything packed up for a past vacation trip to Northern Michigan. (We were living in Michigan at the time.) Next he mentioned the fishing, the catching of frogs and a frog-leg dinner, the beach dinner, and the sand that the smaller children managed to sprinkle over every item of food, and then the albino frog at the abandoned quarry we had found.

Next he described in vivid detail the turmoil of getting everything out of the summer cabin, the oversights, the hunting of misplaced items, and the wandering off of the smaller children and the hurried search for them, the locking-up of the cabin, and the hungry tired state we were in when we arrived at Wayne County General Hospital near Detroit where we lived.

At this point a vague notion passed through my mind to suggest to Bert that he might take the car and visit some friends, but this idea vanished as Bert laughingly told of how his brother Lance particularly liked eating Grandma Erickson's fried chicken on the way back to Michigan from Wisconsin. With much laughter he recalled another occasion in which his small brother Allan had amused everybody, and especially Grandma and Grandpa Erickson with his "bulldozer" pattern of eating, that is, holding his plate up to his mouth and systematically using his other hand to shove the contents of the plate slowly and steadily into his mouth.

Again, this time a clearer idea came to mind of suggesting that Bert take the car keys and go for a ride so that I could enjoy reading, but I forgot it as I recalled my father's amused comment on the absolute efficiency and speed of Allan's method of eating.

While we were laughing about this, Bert mentioned the trip to my brother's farm, and six-year-old Betty Alice's long, solemn explanation to three-year-old Allan's worried inquiry about how the mama chickens nursed their babies, that chickens were not mammals and only mammals nursed their young. While we

were laughing about this, a third time the thought came to mind of offering Bert the car for the evening, this time most clearly, and I recognized why. In every item of reminiscences Bert was speaking of pleasant and happy memories based each upon the driving of a car. Yet not once had he actually said the word "car"; the nearest he came to that was to say "packing up," "trip," "went to see," "way out to the old quarry," "down to the beach," "on the way back to Michigan from Wisconsin," and the trip to my brother's farm, and not once did he mention the word key-locking up the cabin was as close as he came to that.

I recognized the situation at once and remarked, "The answer is 'no'." He laughed and said, "Well, Dad, you'll have to admit it was a good try." "Not good enough; I caught on too fast. You overemphasized trips in the car. You should have mentioned the picketing of Ned's place, where our car was serviced, Ed Carpenter from whom I bought the car, the ice-fishing trip which was in Emil's car but did involve an automobile. In brief you restricted yourself to a constant indirect mention of pleasure trips, always in relationship to us, it was always in our car. The inference to be drawn became too obvious. Do you really want the car?" His answer was, "No, I just thought I'd get a little fun out of getting you to offer me the car keys."

# **Respiratory Rhythm in Trance Induction: The Role of Minimal Sensory Cues in Normal and Trance Behavior**

Milton H. Erickson

Unpublished fragment, circa 1960's.

To orient the reader of this paper, it will be necessary to cite five items of fact out of order and as a preliminary consideration. This paper represents a rather unique lifelong investigative, exploratory study that began as a child's curious quest for an understanding of the inexplicable and then slowly evolved as a systematic inquiry into hypnosis as a method of interpersonal communication at both verbal and nonverbal levels.

Item Number 1 is this: Shortly after entering the University of Wisconsin, I sought out the professor of psychology, then Joseph Jastrow, and made known to him my wishes. He kindly had me tested in a great variety of ways, both by himself and others, and finally disclosed to me the fact that I was in the lower one percentile of those who appreciated or understood music and rhythm. He also disclosed that my range of hearing exceeded the average for both higher and lower pitched sounds.

Item No. 2 is that in the early 1930's I gave a lecture on hypnosis at the Worcester State Hospital. The late Edward Sapir, a linguist, Stirling Professor at Yale University, and his colleague, Dr. John Dollard, attended. The latter briefed Dr. Sapir to the effect that I grew up on a Wisconsin farm and had never been out of the United States. After the lecture Dr. Sapir introduced himself, stated that he was both a linguist and a violin virtuoso and that his hobby was collecting records of music from all parts of the world. He inquired if I knew that I was tone deaf and arrhythmic. I told him I was so aware. He stated that he had listened to me speak with much fascination in an effort to discover what kind of an individual rhythm of speech I did have and to determine if I had acquired any trace of Occidental musical rhythm—and he had missed the content of my lecture. He later informed me that, in playing over his collection of records, he had come across one of a Central African tribe whose rhythm was similar to mine. In this same connection, since 1950 two anthropologist patients of mine have inquired separately if I had worked personally with a certain Brazilian jungle Indian tribe and with a certain Peruvian jungle Indian tribe.

Both ascribed to me a vocal rhythm highly suggestive of the respective tribe with which they had worked.

Item No. 3 is the simple edifying comment of the five-year old patient brought to me for hypnotic therapy for severe enuresis of one year's duration after complete successful toilet training that had endured two-and-a-half years, and had then suddenly broke down completely. His remark, one made in various forms, particularly by children under the age of eight, was "Ebby night my mommy swings (sings) me to sweep (sleep), but you

bweathe me to sweep.” He was entirely right. I had used my special respiratory rhythm technique for inducing hypnosis in him.

Item No. 4 is the comment of my daughter, Betty Alice, who summarized her view: “Ever since I was a little girl I sensed in some way that your breathing in itself was a hypnotic technique that you could use without anything else. Then when you used my college roommate for that Birmingham Michigan Medical Society as an example of a resistant hypnotic subject, I really understood what you were doing. She and the audience thought that you were casually discussing various ways of making an initial approach to the resistant patient, but all of a sudden I could see you sitting there beside Kelly, breathing in that peculiar rhythm, and Kelly’s eyes slowly, involuntarily closing, and then you took that deep sighing breath, and Kelly was in a somnambulistic trance. I had to struggle to keep from going into a trance myself, but I could really see how she just followed along, breathing just as you did without knowing it. And I watched you cover up and conceal what you had done from the audience by demonstrating arm catalepsy, and the audience thought that that [the arm catalepsy] was the induction technique. They could never have understood if you had tried to explain the breathing.”

Item No. 5 relates to the experience reported to me by two physician students of mine who had each made a tape recording of a specific trance induction in a subject before a professional audience and my demonstration of deep hypnotic phenomena. The experience of both physicians was essentially the same, the only difference being that the daughter of one was nine years old, while the daughter of the other was ten years old.

Both played their tape recording over and over, and each was distressed to discover that at a certain point in the tape recording they were fully aware from the subject’s voice and their visual memories that the subject was “sound asleep in a deep somnambulistic trance,” and that the next moment the subject had suddenly returned to a state of full waking awareness without the author having made any specific request or having given any suggestion. Both noted that, as the author discussed the various phenomena he was having demonstrated and then contrasting them with the waking state, the subject, whom they knew to be a first-time subject and a stranger to the author, awakened or redeveloped the trance in a seemingly spontaneous, automatic manner. Thus they seemed to be intentionally, and without being given cues, arousing from or developing a trance automatically in response to what the author was saying to the audience.

As the two physicians played and replayed their tapes, convinced that the author must have said something not recorded on the tape and expressed this belief aloud, both little girls had expostulated, “But he didn’t say anything. He just changes his voice a little so he can breathe different so she will wake up.” Both physicians had doubted this childish analysis and had replayed the tapes, asking their daughters to indicate this type of occurrence. Both girls repeatedly would declare, “Now his voice begins to get slower, he almost stops like he is taking a breath [or letting out a breath] and then she wakes up [or goes to sleep].”

Both physicians, to their own satisfaction, tested their daughters' auditory perceptions on the immediate and subsequent playings of the recording until convinced that the girls were reporting actual auditory experiences. One of them, a year later at a seminar, sought out the author and earnestly requested that he use exactly the same technique of induction that he had employed previously (identifying the occasion but offering no further information). He asked the author to give some casual specified signal so that he would know on which volunteer the same technique was being employed. The physician did not disclose to the author until much later the reason for this request. Also, it so happened that among the volunteers on that occasion there was a subject who was appraised rightly as capable of responding to the "breathing technique." Both of these physicians were present at this later seminar, and one had his daughter with him. When the "breathing technique" was employed, the daughter present made the astonished comment, "He is doing that same thing to the lady he is hypnotizing now." At the close of the meeting both physicians approached the author separately to disclose their daughters' analyses of the author's technique.

## **BACKGROUND OF ORIGINAL OBSERVATION**

With the above scanty orientation for the reader, I would now like to start at the beginning of many long years of inquiry, exploration, experimentation, and observation.

As a child in grade school I could not understand the peculiar behavior of my schoolmates. It was inexplicable to me, and it was a source of endless curiosity, why my schoolmates should start wiggling their feet and hands when the teacher sat at the organ and hit the keys and made a lot of noise. I felt no desire to wave my hands, to lift my feet up and down, or to rock from side to side. Nor could I understand why the noise from the organ had anything to do with marching when all you had to do was watch the feet of the person in front of you, and the child leading the march obviously set the pace. But what troubled me most was a peculiar change in the breathing pattern of all my schoolmates, which varied greatly from "Tenting on the Old Campground" to "John Brown's Body Lies a'Mouldering" to "Oh, You Beautiful Doll."

My curious questions on this elicited only the unsatisfactory reply, "Everybody breathes. Don't be silly. Songs are different."

At church old Mrs. Snow (probably in her early 40's) was much in demand as a soloist for weddings, funerals, and weekly services. She also was a regular attendant at community sings.<sup>1</sup> I could never understand why Mrs. Snow put extra syllables into words nor why she did such peculiar breathing, because when she began that kind of breathing, so did other people, even if they didn't sing. When I asked her about it, she gave me irrelevant answers about thoracic, diaphragmatic, and abdominal breathing, but what I wanted to know was why people listening would tighten their throats and change their breathing. I often noticed that people would change their breathing and then begin to hum and then to sing. I also noticed that when people hummed, others would join in, even waving their hands or feet—for which I felt no urge. Then I noticed that people would sometimes become silent and thoughtful and change their breathing and then

suddenly begin humming or singing. Also, I noticed many times that a person would change his breathing and soon the person beside him would be breathing the same way, and then they would start singing the same song with no previous mention of the song or singing. I noticed the same thing about people who marched. I could not understand what breathing had to do with foot movement or why one person's breathing could lead someone else to keep step with the special breathing of another person. It simply occurred spontaneously, or, as closely as I could determine, it occurred as a result of the breathing. All of my inquiries elicited rebuffs. Nobody seemed to understand my questions about breathing. Soon I began to keep my inquiries to myself, since everybody dismissed them as foolish.

This only enhanced my curiosity. I began learning to "breathe different ways," and would sit down quietly beside a sister or a schoolmate, apparently absorbed in reading a book, and breathe quietly at what I now know to have been at a subliminal auditory level. I would try to duplicate the breathing pattern for various songs (which I could never do accurately) to see if the person I was sitting beside would begin to hum and then to sing. More often they became irritated but did not recognize that I was breathing in some special manner. It seemed entirely reasonable to me that if people could hear a low, meaningless humming and respond by bursting into song and beating time, that a soft, low, meaningless breathing could effect the same thing. Over and over again I found that breathing and humming could separately elicit the same response, but that when breathing was employed, the other person assumed that he had initiated the singing. Humming was always ascribed to the proper person. Since my curiosity led only to rebuffs and disapproval, I kept my questions to myself, but was stimulated to further searching observations.

It was not long before I discovered the contagion of a yawn, and by diligent practice I finally learned how to initiate voluntarily a certain sensory process in my ear, which I still cannot identify and which is always succeeded by a long involuntary series of yawns.

Particularly in high school I utilized this to "rock" my classmates off balance when they were reciting. I could not understand why yawning, a form of breathing, could be as contagious as was humming a popular tune, and why it should lead to certain physical behavior even as humming would lead to beating time with feet and hands. Additionally it also furnished me with personal entertainment.

I always struggled manfully with my uncontrollable yawns once started, with the consequence that the entire class would become involved, including the teacher. One particular classmate was talented musically, and I would sit behind her and unobtrusively breathe in the right fashion to elicit a yawn. She never became aware of my part in the yawning, but she was a most responsive subject for what I would now term subliminal auditory stimulation.

I did not do this too often, just often enough to discover that one could carefully, unobtrusively, unrecognizedly induce others to hum or yawn. I was exceedingly careful never to betray myself.

I could not understand why such minimal sounds as those of breathing could so affect a person and actually be a means of eliciting behavior predetermined by me. Everybody breathed; nobody paid any attention to their breathing unless ill; and yet breathing was on a par with humming, singing, and vocalization of any sort. Also, breathing was basic to vocalization of any sort. Breathing was basic to vocal behavior, but nobody seemed ever to recognize it as such.

When I encountered my first stutterer, I was completely bewildered by his breathing pattern when he *thought of talking* and *when he spoke*. It made me uneasy and uncomfortable, and I avoided it after copying the pattern a couple of times as well as I could to make a classmate uncertain and hesitant in reciting. This frightened me and served to convince me further that people communicated with each other at “breathing” levels of awareness unknown to them. I did not then have an adequate vocabulary nor a clarity of concepts to come to a good understanding, even for myself. But I did know that communication with another could be achieved at a nonverbal and actually unrecognized fashion, but that there had to be definitive stimuli to achieve this end, and that it was best accomplished without the awareness of the other person.

Upon entering college, I was fortunately assigned to an English lecture course conducted by a professor who hated the course and who resented the students. My personal attitude was either like your work or get work you like. At all events I considered him fair game for my personal exploration. It was a wretched semester for him. I enlarged my nonverbal communication by nodding or shaking my head slightly in agreement with what he said, but synchronized my head movements with his respiration. (I always sat where he could see me, and I knew that any student who seemingly unconsciously moved his head in agreement with the teacher would be sought out as a form of solid support.) Soon he was breathing and I was moving my head, in unison. Then, by lagging or by speeding my head movement, I could influence him to change his respiratory rate involuntarily, causing speech difficulties. These in turn became stimuli in themselves for further speech difficulties for him. Or I would go through the preliminary respiratory movements of a yawn and establish in him a state of contagious yawn, which he intensified by his emotional reaction against it. However, I was careful never to be predictably regular. Thus I might “work on him” during the first half of the class period, the last half, the middle half, or a quarter of the period, always in some random fashion.

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<sup>1</sup> In the early 1900s a favorite custom for the long cold Wisconsin winter evenings was gathering at a home where there was an organ and singing songs. My older sister was a regular attendant, and I was her escort; but I was never allowed to participate in the “yelling,” which my sister indignantly insisted was not yelling but singing.

# **Indirect Induction of Trance: Simulation and the Role of Indirect Suggestion and Minimal Cues**

Milton H. Erickson

Unpublished paper written in the 1960s.

A student majoring in experimental psychology became greatly interested in hypnosis, and in the fall of 1923 he asked the author to collaborate with him in a special study. This project was to be a comparison and contrasting of the somnambulistic behaviors of different subjects in exhibiting various types of hypnotic phenomena. In preparation he had been training a number of volunteer subjects to develop somnambulistic trances. He proposed that the author participate with him in taking one of the better subjects and inducing a profound somnambulistic trance. Then, working together, they could use that subject to formulate a systematic procedure by which hypnotic phenomena could be elicited in an orderly and related fashion. The author readily accepted this offer.

At the appointed time the author was introduced to the volunteer subject, a third-year student majoring in literature, obviously a highly intelligent and perceptive person. As the introductions were made, the psychology student, Mr. H, casually handed the author a sealed envelope indicating that it was to be read at some later time.

The subject was remarkably competent, and a long series of tasks was done by him. As a final task, he was asked, at the request of the psychology student, to write three brief sentences pertaining to his childhood. These were not to be read immediately. Instead, the paper bearing them was to be folded and placed for safekeeping in a convenient book, the object being a test for hypnotic amnesia and to determine the processes of reassociation in recovering hypnotically repressed memories.

The subject was then awakened and there developed an extensive discussion of hypnotic phenomena in general and the hypnotic subject's behavior specifically, in which the subject tried to participate but could not do so successfully because of hypnotic amnesia. Finally the general question was raised by the psychology student concerning the possibility of successfully pretending to be in a trance, and what was there about the volunteer subject's trance behavior that would render it difficult for another to duplicate it by pretending to be in a trance? Wholly unsuspecting, the author made many dogmatic assertions, finally being brought to a painful halt by the request that he examine the contents of the envelope handed him when he first entered the room. Perusal of the contents disclosed the message, signed by the volunteer subject, "Tonight I am going to give a fake performance of every hypnotic act you suggest to me, and I am going to pretend to write automatically three brief sentences about my early childhood which will read as follows . . ." —and three sentences were appended. Checking with the folded sheet of "automatic writing" confirmed the author's unhappy predicament. A few

questions put to the subject gave abundant proof that the author had been most thoroughly hoaxed.

There followed a complete account by the psychology student of his systematic instruction and coaching of the, subject, who was an experienced actor majoring in drama; by having him study the somnambulistic behavior of hypnotic subjects and then imitate it. The actor proved to be an apt pupil, and he was personally interested in the project since it presented to him an opportunity for special training in acting. When the actor judged that he could perform creditably, the psychologist proposed the experimental testing of the imitation by undertaking to deceive the author. This, if successful, would then be followed by an experimental study of actual and pretended hypnosis to be done by the psychologist and, it was hoped, by the author. The statement was made that the author was now so thoroughly sensitized that he would be a most able and critical judge of pretense and actuality.

The proposal was made that a joint study could now be developed and that the next step might logically be the converse of what had already been done. That is, now that it had been demonstrated that the operator could be deceived, could the "subject" be deceived?

Discussion of this led to the experimental plan of securing another experienced actor. Both the psychologist and the first actor would coach him with the purported intention of deceiving the author. However, the author, being fully aware of the situation, would then be in a position to maneuver the subject out of his deceptive role without betraying that fact to the subject. Just how this was to be done would be the author's task; the training of the next actor would be their task.

The second actor, another drama major, was decidedly competent. He could sneeze repeatedly, cough, gag, retch, even vomit, shed tears, and chatter his teeth, among other things, at will. He was given to understand that the author was exceedingly well experienced in hypnosis and that the purpose to be served was not just a hoax but a serious enterprise in comparing and contrasting behavioral manifestations in waking and hypnotic states. He recognized the validity of this proposal and also recognized his own opportunity to learn something more about acting.

The student and the two actors, together with a half-dozen good somnambulistic subjects who were unaware of the actors' purposes, worked hard training the subject until the psychologist and the first actor were certain of the second actor's competence.

When this task had been finally accomplished, the author was introduced to both actors by the graduate student, thereby adding further to the appearance of a hoax. The author pretended to make a choice of the two actors, Mr. A and Mr. B, as possible volunteer subjects by tossing and catching a coin and announcing his reading of it as indicating that the second actor, Mr. B, had been selected by chance as the first subject to be hypnotized.

As a preliminary measure of further confirmation for Mr. B that a hoax was being perpetrated upon the author, Mr. A was instructed in great detail to be most attentive to

the author's trance induction of Mr. B and of Mr. B's hypnotic responses so that "perhaps you can learn mom rapidly and effectively how to go into a trance, *perhaps even to go into a trance most unexpectedly.*" This last (italicized) statement was said with impressive but soft emphasis, glancing from one to the other of the two actors. Both the student and Mr. A tended to disregard the meaning of the statement because of their awareness of the situation. Mr. B was impressed by the emphasis but assumed it was meant to be meaningful only to Mr. A. Hence, he ignored it as personally intended. Thus both A and B heard a significant suggestion, but each assumed it to have no significance for himself, and was merely intended to carry a special message for the other person.

Then the author went through an eye-fixation and lid-closure technique of induction and elicited from his "subject" an excellent highly creditable imitation of somnambulistic phenomena. However, there was, to the author, no question that the hypnotic behavior was not genuine, but it was also apparent to him that to differentiate descriptively between the genuine and the false would be most difficult.

As apparently the last activity, the author suggested that automatic writing be done. A full, laboriously elaborate description of this was offered, and then, to the astonishment of Mr. A and the psychology student, Mr. A was asked to join Mr. B in this activity. They were told to walk slowly across the laboratory floor and to seat themselves in an upright position in the two chairs already in place on opposite sides of a laboratory table. In front of them they would find pencils and a paper pad on which to write. As they sat down, they were to pick up a pencil, place their hands in a writing position, and stare rigidly and continuously only at the eyes of the other. They were to walk in unison to their separate sides of the table, to pick up their pencils *in unison*—everything was to be done slowly, deliberately, and in *unison*. Nothing at all was said about Mr. A developing hypnosis, and no explanatory look was given to him or to the psychology student. As the two slowly took their seats, picked up their pencils, and positioned their hands, the author placed in front of each a screen, explaining to them that the screen would allow them to see only each other's eyes alone but neither their hands nor those of the other. Then, as they continued to look steadily at one another's eyes, they were to write *in unison at the rate of not more than one letter every three to five seconds* until they had written a brief sentence, very brief, about some forgotten event of October 1917. When they had written as instructed, they were silently to move their hands from the pad still holding the pencil. And they were to continue staring steadily into each other's eyes.

From a position of vantage the author kept both under full observation and silently, in a most expectant manner, waited. Fifteen minutes elapsed before the task was completed, being first accomplished in five minutes by Mr. A. Then Mr. B completed his writing, doing it at first in a most hesitant manner and then much more slowly than the other but seemingly in an improved state of comfort. They were both then instructed to rise slowly, still facing each other, then to turn and to walk *in unison* to the north end of the room, where they would note a chalked circle on the floor. They were to stand silently at attention facing each other from opposite sides of the circle. Immediately as they assumed their position, the author instructed them, "Now, Mr. A and Mr. B, continue to look at each other, but as you do so, each of you is to assume the identity, the personality

of the other. This is to be done even as I am giving these instructions and will be completed as I finish this sentence. [Pause.] *Now maintain the status quo.* I shall leave the room for five minutes, and while I am gone, you will continue to *Maintain the status quo* and you will do so after I return until I instruct you otherwise and *all instructions you will obey exactly.*" The author left the room, quietly pocketing the automatic writing on his way.

As soon as the author had left the room, the psychology student, as he related subsequently, had remarked, "Wonder what he is up to now!" and looked expectantly at the two actors. To his astonishment, he found that both were in a deep trance and completely out of rapport with him. He spent the next few minutes desperately trying to establish rapport and to solve the problem the situation constituted.

As the author reentered the room (the departure had been to give the psychology student an opportunity to discover the situation, and his facial expression betrayed that he had), he addressed the subjects, "My colleague is now going to ask *one of you to arouse as you are.* You will be aware of him until you note that he is addressing the other, and then that one only will be aware of him." The fellow student was handed a written message reading, "Say to them, 'I am now speaking to you and I want you just as you are to awaken now, Mr. B.'" The student was astonished when Mr. A aroused and looked questioningly and bewilderedly at his fellow actor, the psychology student, the author, and then appeared to note his position in a puzzled way and to glance uncertainly at the chair over at the laboratory table. He was obviously at a loss to understand his situation. He was asked, "Would you like to speak or ask something?" "I certainly would! How did Jack get into my clothes [a startled facial expression and he looked down at himself], and how did I get into his? Not a bad fit, but I don't want them!" He proceeded to divest himself of his jacket, placing it upon a chair. He was asked to drop that matter and to explain how he felt. His answer was simply that he was too bewildered to think, and his eyes kept straying to his colleague, to the jacket on the chair and the trousers he was wearing. He seemed incapable of thinking spontaneously about anything else.

The second subject was then aroused by first touching his arm and then saying, "I am shortly going to ask you to awaken. Let me repeat, I *alone*, am going to ask you to awaken. Do so now!" Promptly the pseudo-Mr. A aroused and looked expectantly at the author. His colleague asked, "Why are you wearing my clothes, Jack?" but received no reply. It soon became apparent that the pseudo-Mr. A was in rapport with the author only and that he was simply passively awaiting instructions from the author. When it was judged that the situation was fully as clear as it could be to the others, the author flicked a glance at the jacket on the chair. The subject glanced at it, his face assumed a puzzled look, he glanced at the jacket he was wearing, glanced back at the jacket on the chair, then seemed to be struck with a new thought and glanced at his trousers. The author gave no encouragement to him that might lead to speaking. In troubled silence the subject looked around, noted the chairs at the table and the chalked circle but still continued not to see the others present.

There followed a great variety of manipulations, removing the amnesia from one, then restoring it, suggesting the return of the correct identity of one but not of the other, then reversing this until both actors and the psychology student were without doubt as to the genuineness of their hypnotic behavior and its marked difference from nonhypnotic behavior. But particularly bewildering to both A and B were their separately available memories of being in a trance, of being depersonalized, recalling their bewilderment when seemingly in the wrong clothes, and their inability to know when or how they developed a trance, and noting the ease with which the author could induce amnesias in the other upon request.

Finally, the author asked both separately (sending one out of the room while the other was questioned) about when they first developed a trance state. Both, after careful study of their recollections, offered the spontaneous statement that their last waking state memory dealt with "walking over together and sitting down in a chair and looking at [the other]." Beyond this neither could go. Indirect inquiry soon disclosed that neither remembered about the automatic writing, and when mention was made of automatic writing, both expressed a willingness to try it. The author repositioned the chair, seated them, and asked them, as a form of practice in writing, to "*Just snatch three words out of nowhere that you don't remember* and just write them down." This statement was given with careful emphasis. Both obeyed, with puzzled looks, and one noted that he had written "Me swim cold" while the other had written "Police arrested me." Extensive questioning by the author and the psychology student, who was following the author's lead, failed to establish any meaningfulness for the written words. The one stated that he had never been arrested, the other said he had done a lot of swimming when it was cold but otherwise what he had written was without meaning. When their lack of understanding had been obviously clearly defined, the author handed each his previously done automatic writing, saying with quiet emphasis, "Remember!"

Both did so amazingly. First they recalled the actual experiences, a fall out of a boat and swimming ashore, the other an arrest for a Halloween prank. Then they recovered the approximate date in October 1917, and then they noted that the automatic script was definitely of a rounded, childish character, quite unlike their own regular handwriting.

Among the many aspects of the evening's events reviewed and speculated upon was how a trance had been induced in them. B was chagrined to find that the author had in some way outmaneuvered him and was intrigued to know that A had hoaxed the author. A could only express his astonishment that he had been in some indirect way hypnotized, but he could not offer even an approximate guess of how it had happened. They were told that the author would describe the plan he had worked out in detail before coming to the laboratory, describing in detail the steps. If this seemed to be wrong, they were to say so. If the steps were correctly stated, or approximately so, they were to *sense whatever was the degree of correctness the described step had.*

The explanation was: "While Mr. B was faking so competently under the impression, that he was deceiving me, quite possibly Mr. B was wondering if I would use Mr. A. Unquestionably he expected me to do so because of the coin tossing, which was only a

pretense of deciding which was to be the subject. But only the author knew this. At the same time Mr. A was also undoubtedly wondering the same thing. Also, Mr. B was intensely concerned about giving the best possible performance he could. Mr. A, of course, knew that I was aware of the situation and that I was probably planning some special work concerning the actual deception of Mr. B despite Mr. B's belief that he was deceiving me. This special plan presumably might involve hypnosis. Mr. A could not know if the hypnosis involved him or Mr. B or both of them, but he could wonder. Yet I asked nothing of Mr. A except participation in an automatic-writing situation. The request was made that they walk *in unison*, sit down *in unison*, pick up the pencils, and so on, all *in unison*. This was *not a request for deceptive behavior but a request for a different kind of behavior than what had been presented* by either A or B previously. In responding to the request, Mr. A had thought of possible hypnosis in mind for himself and possibly for Mr. B, and the peculiar character of the task took Mr. B completely out of his role of behaving deceptively. He had to act differently, but how? *They were to see only each other's eyes*, and this was further emphasized by openly restricting their visual fields. They were being helplessly manipulated. The writing instructions they were given were worded purposely to create a totally new writing situation for them, one in which they wrote slowly, laboriously, as they had in their remote past. The very situation compelled them to cooperate, but they could not determine for themselves how to cooperate. The instruction about the writing was intended to evoke a childhood pattern of script that would in turn elicit an actual age regression. The author picked the year of 1917 as appropriate, and the month of October because it was likely to have special childhood memories of Halloween not too quickly realized by adults. The waiting at the table only gave both more opportunity to respond to the non-deceptive possibilities of the hypnotic situation, because neither Mr. A nor Mr. B could be entirely sure of himself or of the other. They had seen somnambulistic hypnotic states, and they were finding themselves in a situation they could neither falsify nor manipulate. The author was utterly and completely in charge. Both Mr. A and Mr. B were in a psychologic bind because the one had to do as did the other, and neither could act on his own responsibility. Both could suspect the other of hypnosis. *Neither could see any opportunity for deceptive behavior.* Then they were positioned on the chalk circle, which they had not previously noticed, walking *in unison*, in unison staring only at each other. '*Maintain the status quo*' is certainly not an expected hypnotic command, but it certainly is definitive as a command in commanding the continuance of hypnosis *if it exists*. The command itself would serve to dispel any doubts or lingering uncertainties they might have about hypnosis. Thereafter it would be a posthypnotic cue, since the command was definitely associated with a mental status, not just a physical position, at the chalk circle. In securing the automatically written material, care was taken to keep them in the waking state, by having them alertly *keep in unison*, thus to prevent any recovery of hypnotic memories, and *they were not told to write* but to 'snatch three words out of the nowhere that you don't remember' and just to write, not automatically, those words. In 'just snatch' was conveyed the implication that the words were already there, 'out of the nowhere that you don't remember.' Well, that 'nowhere' was the hypnotic amnesia and the forgotten automatic writing. They remembered only up to the point of the chairs in which they sat. All the rest became 'a nowhere that you can't remember,' not understandable in the waking state but readily so in the trance state."



# **Notes on Minimal Cues in Vocal Dynamics and Memory**

Milton H. Erickson

Following Clark L. Hull's example, I made notes on a lot of observations on things that interested me and that I thought might some day be useful. A couple of weeks ago I happened to pull a folder out of my filing cabinet and found sheets of yellow and white paper bearing the enclosed material which I put together as a continuum. The first part was discussed with Larry Kubie and with Dave Rappaport when he was engrossed in writing his book on "Memory."

It is all material that helped shape my thinking about hypnosis and the importance of factors seemingly totally unrelated.

One of my favorite recollections is an incident that occurred when I was standing in the barn doorway when I was about ten years old. A "brilliant" idea occurred to me, now long forgotten. I knew to execute that brilliant idea I would need a hammer and a hatchet. But those things were on the back porch. I rushed to get the tools, but in some way, by the time I reached the porch, I had completely forgotten what I was after. Following a long, fruitless mental search, I returned to the barn door and recalled my brilliant idea and what was needed to execute it. My brilliant idea was associated with the barn door where I happened to get it.

That led to climbing trees and learning poems from an old magazine of my grandmother's. I picked trees at random, short poems at random, and noted the connection between individual trees and the poems I learned while sitting in those trees. Three years later I went on an exploration tour and found that when I climbed the right tree, my memory of the poem associated with it was greatly improved.

## ***Notes on Minimal Cues: 1933-1964***

During the years 1930-34, while I was on the Research Service of the Worcester State Hospital in Massachusetts, I slowly began acquiring an Eastern or "Harvard" accent. This was primarily a partial replacement of the flat A-sounds of the Midwest with the broad A-sounds of the Eastern coast. The replacement was amusingly inconsistent to my colleagues, since in a single sentence both broad and flat A-sounds would be enunciated while words of more than one syllable containing the letter "A" might be spoken with both the flat and broad A-sounds. A colleague who worked with me both as co-experimenter and as a hypnotic subject was the daughter of a university professor of English. She was highly sensitive to the spoken word and was writing her Ph.D. dissertation on an aspect of verbal communication. At first she was annoyed by the inconsistency of my use of both broad and flat A-sounds but shortly became amused by it. However, she was highly intolerant of split infinitives and very demanding of absolute

precision and conciseness in hypnotic suggestions, since she objected to any need to redefine in her mind any suggestions given her in hypnotic experiments. Indeed, she would interrupt ongoing experiments to protest any “sloppiness” of speech. Her contention, with which I came to agree strongly, was that every hypnotic suggestion should be given in language permitting “ready and simplistic interpretation,” explaining that the hypnotic state tended to limit the spoken word to its literal meaning. She further contended that precision and conciseness of instruction allowed subjects to respond in terms of their own understandings, free from added enforced implications of social adjustments. For example, the question, “Will you look at me?” requires an answer of no more than a no or a yes or an I don’t know, rather than the execution of a physical response. Two other colleagues, also working on Ph.D. dissertations concerning aspects of the communication of ideas, both of whom had acted as co-experimenters and as hypnotic subjects, agreed with this understanding when their opinions were sought.

In a discussion of my inconsistent use of broad and flat A-sounds, it was regarded as signifying slowness in linguistic learning. None of them knew that I had not learned to talk until the age of four years despite a sister two years younger who began talking at the age of one year and was very fluent at the age of two years. The late Edward Sapir, the linguist, then the Sterling professor at Yale University, after listening to me lecture, spontaneously made the same comment and made direct mention of my tone deafness and primitive rhythm of speech.

The above information was kept in mind but without conscious utilization in subsequent experimental work.

Within two months after leaving Massachusetts in 1934, I had lost the broad A-sound, having been very self-conscious of it in the first few weeks in Michigan.

No more thought was given to my “lost accent” until September, 1937, when I attended the American Psychological Convention in Minnesota. There I encountered my former psychological colleagues. To my surprise, the mixture of broad and flat A-sounds returned to my speech, and they commented on my retention of my “Harvard accent.” Only the emphatic assertions of my wife convinced them that it was a recurrence occasioned by the stimulation of old associative pathways by meeting them.

All traces of that “accent” disappeared on the way home to Michigan. Nothing more was thought about that matter except as something interesting to record, possibly for some future speculation.

In September, 1941, I learned that two former medical colleagues, who had left Massachusetts, one shortly before and one slightly after I left, were going to call on me on the same Saturday afternoon. Both were coming from two different Midwest states. This called to mind the earlier records I had made and provided the background for a field experiment in relation to unusual factors in memory-retention recovery.

Accordingly, for the several days preceding the arrival of Drs. A and B, I endeavored to recall the first names of the patients that I had worked with on the Research Service at Worcester, actually worked with jointly with my colleagues.

My colleagues arrived about ten minutes apart and were met by my secretary, who greeted each separately, escorted them to different rooms, furnished each with a notebook and pencils, explaining that I wished their help in an experiment I was currently conducting. This help was their recalling the first names of patients they had worked with on the Research Service. Each was told that the length of time to be allotted was at least a half-hour. They would be undisturbed and could work in silence, but that she would return in 30 to 40 minutes.

Both A and B acquiesced to the request readily. At the expiration of slightly more than 30 minutes my secretary told Dr. A, who told her that he had written down all the names he could recall, that there would begin shortly another half-hour of participation during which he was not to speak under any condition to anybody, and that she would return in a minute with further instructions. She then went two doors away, where Dr. B was idling time away unable to recall additional names. To him she explained that she would take him to another room to participate in another phase of the experiment and that under no condition was he to speak to anybody.

She led Dr. B into the room where Dr. A was waiting. Both were startled, since neither knew that the other had planned to visit me. Neither spoke, but my secretary instructed them to make a new list of additional names recalled.

Twenty minutes later she entered the room to find each with a new list, but merely biding their time for new instructions. She handed Dr. B that day's newspaper and brought Dr. A to my office, admonishing him on the way not to speak to anyone but merely to make a list of any additional names that he recalled after she had indicated where he was to seat himself.

Even as I began to make a list of additional names, so did Dr. A. Within 10 minutes we both had exhausted our recollection, so I signaled my secretary. She entered the office, asked Dr. A to maintain silence and to accompany her to another room where she handed him a newspaper. Then she brought Dr. B into my office, giving him the same instructions as she had given Dr. A.

Both Dr. B and I listed new names, but shortly we had exhausted our recollection. Upon signal my secretary brought in Dr. A, giving instructions for continued silence and a listing of any additional names.

Each of us added more names, but we soon gave up trying for more.

We then began exchanging personal news, followed by a discussion of the purpose of the tasks my secretary had asked of them. During this discussion Dr. B amusedly commented on the return of my "half-aahssed Harvard accent." This led to the awareness that all of

us had reverted to some degree to the speech learning each of us had acquired during the more than three years each of us had spent at Worcester, Massachusetts, before leaving for different Midwest states.

Examination of the various lists revealed 37 names on my first list, 21 on Dr. A's, and 16 on Dr. B's. In Dr. A's presence Dr. B added 5 more names while Dr. A added 9 to his list. In my presence Dr. A added 7 more names to his list while I added 3 more. With Dr. B I added 1 name, he added 5. With the three of us together, I listed 5 more names, Dr. A added 11, Dr. B added 9. My total of names recalled was 46, while Dr. A's list totaled 41, and that of Dr. B totaled 35.

Although the number of names was 125, they represented only 95 individuals. Of these I had 21 in common with Dr. A and 14 in common with Dr. B. Dr. A had 18 in common with Dr. B. The three of us had in common only 16.

During our weekend visit new names occurred to both during our examination of our lists and spontaneously when visiting in other regards. No record was made of these names, since the actual method of recollection was vastly different.

The next observations pertinent to those above were made repeatedly during lecture trips to Boston at intervals between the years of 1957-1963. The first observation occurred quite unexpectedly while on a plane bound for Boston. While I was engaged in active conversation with my seatmate, the pilot of the plane announced over the loudspeaker, "We are now leaving the space over New York State, entering that of Massachusetts and beginning our descent to the Boston Airport."

As we resumed our conversation, I was astonished by my admixture of broad and flat A-sounds. It attracted the attention of my seatmate who commented, "You Harvard men never do forget your Harvard days. Is this a nostalgic trip for you?"

During the ensuing explanation and discussion, he commented on his own experience in noting that geography as well as many other items in life experience evoke past learnings.

On the return trip from Boston I noted that I had left behind my broad A-sounds only to be recovered on my next trip to Boston.

On one occasion, as the plane left New York City, I recalled the 1941 inquiry about recalling names of Worcester patients. I immediately set about listing names and had recalled 23 before reaching Boston. On a subsequent trip to Boston I spent an evening with a former associate, then living in Worcester. On the 40-mile trip from Boston to Worcester, I began recalling not only names but the year in which I met them. This had been attempted unsuccessfully by the three of us in 1941 but with unsatisfactory results. Upon returning home the next week, I checked my recollection of the names I had recalled on the way to Worcester. I recalled less than half of them. Of the identifying years, my recollections were essentially guesswork, in contradiction to the previous

week's feeling of certainty and the confirmation by my former colleague who had been on the Research Service as long as I had.

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# **Concerning the Nature and Character of Posthypnotic Behavior**

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Despite the general familiarity of posthypnotic behavior and its extensive role in both experimental and therapeutic work, little recognition has been given to it as a problem complete in itself. Instead attention has been focused almost exclusively upon the various activities suggested to the subjects as posthypnotic tasks, with little heed given to the nature of the behavior characterizing, if not constituting, the posthypnotic state, and which influences and perhaps determines the nature and extent of the suggested posthypnotic performance. Emphasis has been placed primarily upon the results obtained from posthypnotic suggestions and not upon the character or nature of the psychological setting in which they were secured. The study of the mental processes and the patterns of behavior upon which those results are based and which must necessarily be in effect in some manner previous to, if not also during, the posthypnotic performance, has been neglected. Yet despite a lack of adequate experimental provision there has been a general recognition of certain significant facts regarding the posthypnotic performance which imply directly the existence of a special mental state or condition constituting the background out of which the posthypnotic act derives.

Foremost among these facts is the occurrence of the posthypnotic act in response to a suggestion which is remote from the situation in which it has its effect. Next the immediate stimulus, posthypnotic signal, or cue eliciting the posthypnotic act serves only to establish the time for the activity and not the kind of behavior, since this is determined by other factors. Also the posthypnotic act is not consciously motivated but derives out of a remote situation of which the subject is not consciously aware. Finally it is not an integrated part of the behavior of the total situation in which it occurs, but is actually disruptive of the conscious stream of activity, with which it may be entirely at variance.

In a search of the literature published during the past 20 years, covering approximately 450 titles, no references were found which were suggestive of a direct study of posthypnotic behavior itself, although many of the titles indicated that posthypnotic suggestion had been used to study other patterns of behavior. Similarly a review of approximately 150 selected articles and books, some of which were published as early as 1888, yielded only a little information definitive of posthypnotic behavior as a specific phenomenon.

The more instructive references were found chiefly in the general textbooks on hypnotism rather than in experimental studies involving the use of posthypnotic behavior. However, even these were general assertions or brief, vague, and sometimes self-contradictory statements, based either upon the author's own experience and that of

others, or upon experimental material of an inadequate and often irrelevant character in which there was a marked confusion of the results of suggested posthypnotic activities with the mental processes and patterns of posthypnotic behavior by which those results were obtained.

Nevertheless, despite their inadequacies the references found did indicate that there had been frequent recognition of posthypnotic behavior as constituting a phenomenon in itself, and a number of these will be cited and discussed briefly, with emphasis placed primarily upon those points we propose to develop in direct relation to experimental data in the body of this paper.

Thus Bernheim (1895, p. 157), in discussing posthypnotic activities, states, "I have said that somnambulists who are susceptible to suggestions *à longue échéance* are all eminently suggestible, even in the waking condition; they pass from one state of consciousness into the other very easily; I repeat the fact that they are somnambulists spontaneously, without any sort of preparation," but he offers no elaboration of this statement.

Likewise, Sidis (1898, p. 174), gives recognition to the fact that posthypnotic behavior is a thing apart from ordinary conscious behavior and is marked by special characteristics. He declares, "The posthypnotic suggestion rises up from the depths of the secondary self as a fixed, insistent idea . . . In hypnosis the suggestion is taken up by the secondary, subwaking, suggestible self, and then afterward this suggestion breaks through the stream of waking consciousness . . ." Without attempting to develop these points he proceeds with a discussion of certain experimental results, actually irrelevant to these observations. Similarly, Bramwell (1921, p. 95) states:

Under ordinary circumstances, the instant hypnosis is terminated all the phenomena which have characterized it immediately disappear. In response to suggestion, however, one or more of these phenomena may manifest themselves in the subject's waking life. This is brought about in two ways. (1) Where the operator suggests that one or more of the phenomena shall persist after waking . . . (2) The most interesting class of posthypnotic suggestions, however, are those in which the appearance of the phenomena has been delayed until some more or less remote time after the termination of hypnosis.

Later in the same chapter Bramwell (1921, pp. 111-112) states, "According to most authorities posthypnotic suggestions, even when executed some time after awakening, are not carried out in the normal condition; there is, in effect, a new hypnosis or a state closely resembling it." He proceeds:

According to Moll, the conditions under which posthypnotic acts are carried out vary widely. He summarizes them as follows: (1) A state in which a new hypnosis, characterized by suggestibility, appears during the execution of the act, with loss of memory afterwards and no spontaneous awakening. (2) A state in which no symptoms of a fresh hypnosis are discoverable although the act is

carried out. (3) A state with or without fresh susceptibility to suggestion, with complete forgetfulness of the act and spontaneous awaking. (4) A state of susceptibility to suggestion with subsequent loss of memory.

Apparently Bramwell approves of this fairly adequate, though confusingly worded recognition by Moll of the existence of a posthypnotic state. Nevertheless he continues his discussion with an irrelevant exposition of the immediate results obtained through posthypnotic suggestion in the treatment of physiological disturbances. Except for other similar unsatisfactory and scattered references he makes no further effort to elaborate his points or those he emphasizes from Moll.

Schilder and Kauders (1927, p. 64) offer the following statements which by their somewhat contradictory nature serve to emphasize that the post hypnotic state is of a special character, but that it is hard to recognize:

Certain authors actually assume that the hypnosis again comes to life during the execution of the posthypnotic command, an assumption which is justifiable to the extent that in a number of such cases the persons experimented on actually do enter into a dream-like state while executing the posthypnotic order. In other cases, the person complying with the posthypnotic order can hardly be distinguished from any other person carrying out an order, so that it would be far-fetched to speak of a renewal of the hypnotic state.

No further effort is made to develop these points, except by a general discussion of some results obtained through posthypnotic suggestion.

Binet and Fére (1888, p. 177) recognize that subjects show a peculiar sensitivity to suggestion after awakening from a trance, and they direct attention to posthypnotic behavior as a specific phenomenon, placing emphasis upon this highly significant observation, ". . . when a subject remains under the influence of a suggestion after awaking, he has not, whatever be the appearance to the contrary, returned to his normal state."

Hull (1933, p. 300), in direct relation to this passage, takes exception to their declaration, commenting, "This statement is similarly ambiguous from our present point of view because acts performed by posthypnotic suggestion constitute a special case, as is shown by the fact that they are usually followed by waking amnesia of the acts in question."

Just how this comment applies to that observation by Binet and Fére is uncertain. Although Hull, in his textbook published in 1933, does recognize that posthypnotic behavior is a "special case," he disregards his own statement as well as his awareness of the observation by Binet and Fére. Neither he nor his associates make any attempt in their extensive experimental work to provide for the possible existence of any special posthypnotic state which might have a significant bearing upon posthypnotic activities, without regard for the possible influence upon the assigned task of the mental processes and patterns of behavior peculiar to the posthypnotic state, and which might significantly, although perhaps indirectly, control the entire character of the posthypnotic performance.

For example, quoting the work of various experimenters, Hull devotes an entire chapter of his textbook to post-hypnotic phenomena, but limits the chapter to studies of amnesia for directly suggested activities and of the durability of posthypnotic commands, with no reference to that mental state or condition of which the retention and execution of suggestions constitute only a partial reflection.

Nor are Hull and his associates alone in this regard, since it is a general tendency to study posthypnotic behavior only in terms of how well some suggested task is done, without regard for the mental state or psychic condition constituting the setting for that task.

There seems to be no general recognition of the fact that the task performance is only a partial manifestation of the general mental state, and not until adequate provision is made for the needs of the situation in which the task is to be done can it be considered a measure of the capacity for performance.

In our judgment it is this oversight of the special character of the posthypnotic state that accounts in large part for the confused, unreliable, and contradictory nature of the results obtained in experimental studies of posthypnotic phenomena.

Thus in his study of functional anaesthesias, Lundholm (1928, p. 338) states, "The experiments were carried out with the subject in a posthypnotic, fully waking condition, but in which he was deaf for the sound-click, the deafness being due to preceding suggestion during hypnotic sleep." An assumption is thereby made that the subject was fully awake and not in either a partially waking or a somnambulistic state, and there is no recognition of the fact that the suggestions given served to effect an actual continuance of the significant part of the trance state, since the posthypnotic suggestion compelled an uninterrupted persistence of certain phenomena of the trance state, not possible in a fully waking condition.

Another instance in which there is a complete disregard for the posthypnotic state and a confusion of somnambulistic states with the waking condition may be found in Platanow's (1933) experiment on age regression. In describing his experiments he states:

After the subject had reached a suitable state of hypnosis, we generally addressed him as follows:

*"At present you are six years old."* (This suggestion was repeated three times.)  
*"After you wake up you will be a child of six. Wake up!"*

After the subject was awake, a short conversation was held with him, for orientation purposes, and this was followed by tests according to the Binet-Simon method. By means of suggestion the subjects were transferred to the ages of four, six, and ten. When transferred from one age to another they were hypnotized, given the corresponding suggestion, and awakened again. The experiments were generally ended by the suggestion of the real age, and were followed by amnesia.

From this description one is led to believe that the subjects were awake in the ordinary sense of the word during the administration of the psychometric tests, despite the experimenter's recognition of the fact that normal waking memories did not obtain and the fact that his experimental findings proved amply that a mental state other than the normal waking one was elicited by the posthypnotic suggestions.

Fortunately in both of the above experiments this confused and contradictory use of terms did not affect the validity of the findings or the conclusions.

A search of Hull's articles, as well as those of his associates, shows many references to the problems involved in studying the outcome of the posthypnotic state, but there is no apparent realization that the subject, as a consequence of receiving posthypnotic suggestions or in executing posthypnotic acts, might manifest behavior apart from the assigned task, which could alter the task performances significantly. Thus he proposes studies of learning behavior in response to posthypnotic suggestion or of amnesias as posthypnotic phenomena, without any provision for the possible effect, direct or indirect, which the posthypnotic state might have upon the behavior elicited (Hull, 1931). He is interested, apparently, only in the results secured, and he does not seem to realize that any interpretation of those results must be made in specific terms of the psychological setting in which they were obtained rather than in a categorization as broad and ill-defined as is the term "posthypnotic". The tendency to regard the results as representing a posthypnotic performance is of value to that extent only, but does not give any understanding of what the posthypnotic state itself is, and it accounts largely for the variability of the findings of posthypnotic investigations. In brief, Hull as well as others associated with him emphasizes only posthypnotic suggestions and their ultimate results and not the posthypnotic state that must be in existence prior to, if not actually during, the posthypnotic activity. They disregard entirely the fact that there must necessarily be some state of mind which permits a coming forth into consciousness, or partial consciousness, of the posthypnotic suggestion, of which, quite frequently, no awareness can be detected in the subject until after the proper cue is given. Even then that awareness is of a peculiar, limited, and restricted character, not comparable to ordinary conscious awareness. Yet Hull and his associates have directed their attention exclusively to the beginning and the end of along, complicated process and have disregarded the intermediary steps.

To illustrate the confusion which exists in the use of posthypnotic suggestion, the experiment by Williams (1929, p. 324), among others, may be cited. In his report Williams states:

In the case of the combined trance-normal work-periods, the subject was awakened when he had reached exhaustion in the trance by repeating rapidly, "One, two, three—wide awake." The instruction to "keep on pulling" was also added in this case so that the subject would continue his work, if possible, in the waking state.

In this combination of instruction in the trance state to awaken with the command to keep on pulling after awakening, Williams actually gave his subjects a posthypnotic command.

Hence the “waking performance” was in response to an unintentional and unrecognized posthypnotic suggestion. Furthermore Williams apparently assumed that an awakening from a hypnotic trance could be accomplished instantly, despite a continuance of trance activity, and similarly, in the same experiment he assumed that a trance induction could also occur instantly without any interruption of waking activities. Hence the validity of his findings as representing performances in waking and in trance states is to be questioned.

This same confusion of ideas with regard to posthypnotic suggestion and the results to be expected from it is also shown by Messerschmidt (1927-1928) in her experiment on dissociation. Posthypnotic commands were given in direct and indirect relation to separate tasks, one of which was presumably to be done at a conscious level of awareness and the other as a posthypnotic or “subconscious” performance. As a consequence both the posthypnotic behavior and the supposedly waking behavior became integral parts of a single performance, one part of which was provided for by direct posthypnotic suggestions. The other part was in response to indirect and unintentional posthypnotic suggestions, specifically the instruction that the posthypnotic activity was to be carried on regardless of the assignment in the waking state of a new and different task. Thus the posthypnotic suggestions served to instruct the subjects to prepare themselves for certain definite tasks as well as for other tasks not yet specified, although as the experimental procedures were repeated on them, the subjects necessarily became aware in the trance state that the desired performances were to be dual in character. To instruct subjects in the trance state to execute a given task after awakening, when the subjects have full knowledge also of the fact that a second task, contingent upon the first, will be imposed upon in the waking state, is actually a method of giving two types of posthypnotic suggestion. Also, to instruct subjects in the trance state that upon awakening they are to do serial addition by automatic writing without regard for any other task which may be given them or to do serial addition “subconsciously” while reading aloud “consciously,” constitutes the giving of posthypnotic suggestions covering both activities, and, hence the “conscious” task actually becomes a posthypnotic performance concomitant with the other posthypnotic activities. Likewise, to suggest to hypnotized subjects that they will do one task “subconsciously” and another task “consciously” will serve only to elicit posthypnotic performances of both tasks and not a waking performance of one, despite the greater degree of conscious awareness of it, which itself constitutes an additional posthypnotic response.

Also, in addition to the oversights already mentioned, Messerschmidt’s experiment, like Williams’, makes no provision for the possible existence of a posthypnotic state, a somnambulistic state, or any special mental state that might interfere in some way with, or exercise a significant influence upon, the performance of the suggested tasks.

Quite different from the usual experimental study of posthypnotic behavior is the report by Brickner and Kubie (1936), who emphasize throughout their investigation the significant effect which the mental state that develops directly from posthypnotic suggestions has upon the total pattern of behavior. They also note the disappearance of those changes in the general behavior upon the completion of the posthypnotic task.

Similarly, although their studies were directed primarily to other purposes, Erickson (1935) and Huston and his coworkers (1934) demonstrate clearly the development, in direct consequence of posthypnotic suggestion, of a special mental state or condition which influences, alters, and even negates the subject's ordinary waking behavior in routine situations until the posthypnotic suggestion has been either removed or acted upon completely.

While this review of the literature is necessarily incomplete, it does disclose that there has been frequent, if inadequate, recognition as well as complete disregard of the special mental state that develops in direct relation to post hypnotic suggestions, and which is not necessarily limited to the task suggested as the posthypnotic activity. Also it shows that much experimental work has been done on posthypnotic behavior with no attempt made either to define the posthypnotic state or to make provision for any significant bearing it might have upon experimental procedures. Neither has there been any attempt to give an adequate definition of the posthypnotic act specifically, except in terms of the results secured from it. The mental processes and the patterns of response by which those results were achieved have been ignored. Instead there has been the general assumption that the posthypnotic act is simply a performance elicited in response to a command given during the trance state and characterized variously and uncertainly by degrees of amnesia, automaticity, and compusiveness. As a consequence of the inadequate determination of the exact nature and character of a posthypnotic act, much experimental work has led to unsatisfactory and conflicting results, and hence there is a need for more definitive studies of posthypnotic behavior as a specific phenomenon rather than as a means by which to study other mental processes.

We propose therefore to report in this paper various significant observations, both general and specific, upon the nature and character of posthypnotic behavior. These observations have been made by us repeatedly and consistently during the course of experimental and therapeutic work extending over a period of years, and we have also verified our findings by inquiry into the experience of others and by direct observation of the posthypnotic behavior of subjects employed by other hypnotists.

### **A DEFINITION OF THE POSTHYPNOTIC ACT**

We have found the following definition of the posthypnotic act to be consistently applicable and useful, since it serves to describe adequately a form of behavior we have elicited innumerable times in a great variety of situations and from a large number of subjects, ranging in type from the feeble-minded to the highly intelligent, from the normal to the psychotic, and in age from children to middle-aged adults. For the moment we shall limit this definition strictly to the act itself, without regard for partial performances resulting from light trances or for certain other important considerations which will be discussed later. *A posthypnotic act has been found to be one performed by the hypnotic subject after awakening from a trance, in response to suggestions given during the trance state, with the execution of the act marked by an absence of any demonstrable conscious awareness in the subject of the underlying cause and motive for his act.* We have come to

regard as valid this form of the posthypnotic act, since its performance is invariably characterized by definitive and highly significant attributive behavior.

## **THE BEHAVIOR CHARACTERIZING THE POSTHYPNOTIC PERFORMANCE**

This important attributive behavior belonging to the posthypnotic response consists of the spontaneous and invariable development, as an integral part of the performance of the suggested posthypnotic act, of a self-limited, usually brief hypnotic trance. In other words we have observed repeatedly, under varying circumstances and in a great variety of situations, that the hypnotized subject instructed to execute some act posthypnotic ally invariably develops spontaneously a hypnotic trance. This trance is usually of brief duration, occurs in direct relation to the performance of the posthypnotic act, and apparently constitutes an essential part of the process of response to, and execution of, the post-hypnotic command. Its development has been found to be an invariable occurrence despite certain apparent exceptions, which will be discussed later, and regardless of the demands of the posthypnotic suggestion, which may entail a long complicated form of behavior, the introduction of a single word into a casual conversation, the development of an emotional response or attitude at a given stimulus, an avoidance reaction or even a slight modification of general behavior. Furthermore the development of a trance state as a part of the posthypnotic performance requires for its appearance neither suggestion nor instruction. This special trance state occurs as readily in the naive as in the highly trained subject; its manifestations, as we shall show, differ essentially in no way from those of an ordinary induced trance; and it seems to be a function of the process of initiating in the immediate situation a response to the posthypnotic suggestion given in a previous trance.

## **THE GENERAL CHARACTER OF THE SPONTANEOUS POSTHYPNOTIC TRANCE**

The spontaneous posthypnotic trance is usually single in appearance, develops at the moment of initiation of the posthypnotic act, and persists usually for only a moment or two; hence it is easily overlooked despite certain residual effects it has upon the general behavior. Under various circumstances and with different subjects however, the trance may be multiple in appearance, constituting actually a succession of brief spontaneous trances related to aspects or phases of the posthypnotic act. It may appear in a prolonged form and persist throughout the greater part or even the entire duration of the posthypnotic performance; or there may be an irregular succession of relatively short and long spontaneous trances, apparently in relation to the difficulties, mental and physical, encountered in the course of the execution of the posthypnotic act. In general any variation in the form or the time of its appearance or reappearances seems to be a function of individual differences in the subjects and the difficulties occasioned by the general situation or by the posthypnotic act itself.

## **SPECIFIC MANIFESTATIONS OF THE SPONTANEOUS POSTHYPNOTIC TRANCE**

The specific hypnotic manifestations which develop in relation to the performance of the posthypnotic act form an essentially constant pattern, although the duration of the separate items of behavior varies greatly both in accord with the purpose served and with the individual subject. They occur rapidly in direct relation to the giving of the specified cue for the posthypnotic act, with a tendency toward the following sequence: A slight pause in the subject's immediate activity, a facial expression of distraction and detachment, a peculiar glassiness of the eyes with a dilation of the pupils and a failure to focus, a condition of catalepsy, a fixity and narrowing of attention, an intentness of purpose, a marked loss of contact with the general environment, and an unresponsiveness to any external stimulus until the posthypnotic act is either in progress or has been completed, depending upon the actual duration of the trance state itself and the demands of the posthypnotic task. Even after the trance state has ceased, these manifestations, somewhat modified, continue as residual effects upon the subject, and result in the intent, rigid, and almost compulsive nature of his behavior and his state of absorption and general unresponsiveness until he has reoriented himself to the immediate situation.

Similarly, to a slight degree, the disappearance of the trance state, or to a much greater degree the completion of the posthypnotic performance, is marked by a brief interval of confusion and disorientation from which the subject quickly recovers by renewed and close attention to the immediate situation. Especially does this confusion and disorientation become marked if during the state of absorption in the posthypnotic performance there occurred any significant change or alteration in the general situation. In addition there is usually evidence of an amnesia, either partial or complete, for both the posthypnotic act and the concurrent events arising out of the immediate situation. In those instances in which the subject does have a recollection of the course of events, investigation will disclose their memories to be hazy, faulty, and frequently more deductions than memories, based upon their interpretations and rationalizations of the situation to which they have reoriented themselves. Occasionally, however, despite a poor recollection of, or a complete amnesia for, the attendant circumstances, a subject may recall clearly the entire posthypnotic performance, but will regard it merely as an isolated, unaccountable, circumscribed impulsion, or more often a compulsion having no connection with the immediate or general situation.

An example illustrative of many of these points is the following account given in a hesitating, uncertain fashion by a subject upon the completion of a posthypnotic act:

We were talking about something, just what I've forgotten now, when I suddenly saw that book and I simply had to go over and pick it up and look at it—I don't know why—I just felt I had to—a sudden impulse, I suppose. Then I came back to my chair. It just happened that way. But you must have seen me because I must have had to walk around you to get it—I don't see any other way I could have reached it. Then when I laid it down again, I must have put those other books on top of it. At least, I don't think anybody else did, since I don't remember anybody else being on that side of the room—but I wasn't paying much attention to

anything, I guess, because, although I know I looked carefully at that book and opened it, I don't even know the author or the title—probably fiction from the looks of it. Anyway, it was a funny thing to do—probably an impulse of the moment and doesn't mean a thing. What was it we were discussing?

### **THE DEMONSTRATION AND TESTING OF THE SPONTANEOUS POSTHYPNOTIC TRANCE**

Although the various forms of hypnotic behavior spontaneously manifested by the subject in relation to posthypnotic acts constitute actually a demonstration of a trance state, their brevity and self-limited character necessitate special measure for a satisfactory examination of them and for a testing of their significance.

This may be done readily without distorting or altering significantly the actual hypnotic situation, since the giving of the posthypnotic cue or signal serves to reestablish that state of rapport existing at the time the posthypnotic suggestion was given. The task of such a demonstration, however, as experience will show, requires a considerable degree of skill. Usually it is most easily and effectively done by some form of interference, either with the posthypnotic act itself or with the subject after the posthypnotic response has been initiated but not yet completed. The demonstration of the trance state may follow one or two courses, depending upon the presence or the absence of hypnotic rapport between the demonstrator and the subject. If there is a state of rapport, the interference may be directed either to the subject or to his performance, and the trance manifestations are the positive responsive type, characteristic of the relationship between hypnotist and subject. In the absence of rapport effective interference must be directed primarily to the act itself and the trance manifestations are of the negative, unresponsive type, characteristic of the hypnotized subject's unresponsiveness to, and detachment from, that which is not included in the hypnotic situation. In both instances, however, the general and specific behavior obtained is wholly in keeping with that which would be obtained under similar circumstances from the same subject in an ordinary induced hypnotic trance.

The interference most effective in demonstrating the trance is that offered by the hypnotist or by some person actually in rapport with the subject when the posthypnotic suggestion was given in the original trance. It is best accomplished at the exact moment of initiation of the posthypnotic response by some measure serving to counteract or to alter the original posthypnotic suggestion, or to compel the subject to give special attention to the hypnotist—as, for example, the deliberate removal of the object which the subject was instructed to examine; the manipulation of the subject in such a fashion as to effect the development of catalepsy in one or both arms, thus rendering the examination difficult or impossible, or the use, even with naive subjects who have had no previous training, of such vague verbal suggestions as "*Wait a moment, just a moment,*" "*Don't let anything change now,*" "*Stay as you are right now, never mind that,*" "*I'd rather talk to you now,*" or, "*I will be waiting as soon as you have done it,*" and similar remarks implying that an additional assignment may be made.

The effect of such interference is usually a complete arrest of the subjects' responses followed by an apparent waiting for further instructions, while their appearance and mannerisms suggest a state identical with that of the deep trance as ordinarily induced, and all the customary phenomena of the deep hypnotic trance can be elicited from them. Then if they are allowed to return to the performance of the posthypnotic task, a spontaneous awakening will ensue in due course, permitting an immediate and direct contrast of waking and hypnotic behavior as well as a demonstration of an amnesia for the posthypnotic act, the interference, and the events of the trance state. If, however, no use is made of the peculiar state of responsiveness established by the interference with them, the subjects tend to return to the problem of the posthypnotic task. The sequence of their behavior thereafter is essentially as if there had been no interference, but there is then a marked tendency for the spontaneous trance state to persist until the posthypnotic task has been completed. This is especially true if the interference has rendered the task more difficult. Occasionally, however, instead of being arrested in their behavior, the subjects may proceed uninterruptedly with their posthypnotic task and, upon its completion, appear to be awaiting further instructions. The phenomena of the deep-trance state can then be elicited, but if this is done, it becomes necessary to awaken the subjects at the finish.

To illustrate briefly, since other examples will be given later, a subject was told that, shortly after his awakening, a certain topic of conversation would be introduced, whereupon he was to leave his chair immediately, cross the room, and with his left hand pick up a small statuette and place it on top of a certain bookcase. At the proper time, as the subject stepped in front of the hypnotist to cross the room, his left arm was gently raised above his head, where it remained in a cataleptic state. The subject continued on his way without hesitation, but upon approaching the statuette, he apparently found himself unable to lower his left arm and turned to the hypnotist as if awaiting further instruction. Thereupon he was used to demonstrate a variety of the usual phenomena of the ordinary induced trance. Upon the completion of this demonstration he was instructed simply, "*All right, you may go ahead now.*" In response to this vague suggestion the subject returned to the interrupted posthypnotic performance, completed it, and resumed his original seat, awakening spontaneously with a complete amnesia for all of the events intervening between the giving of the cue and his awakening and without even an awareness that he had altered his position in the chair.

This same procedure of interference was repeated upon another subject with essentially the same results. When, however, the hypnotist made no response to the subject's expectant attitude, there occurred a fairly rapid disappearance of the catalepsy, a performance of the task, and a return to his seat, followed by a spontaneous waking with a complete amnesia for the entire experience.

### **SPECIAL TYPES OF SPONTANEOUS POSTHYPNOTIC TRANCE BEHAVIOR**

In those instances in which the interference is not given at the proper moment, while it usually has the effect of intensifying and prolonging greatly the duration of the

spontaneous trance, the subjects may respond to it by bewilderment and confusion succeeded by a laborious compulsive performance of the posthypnotic act and an overcoming of the interference. Again they may misinterpret the interruption of their task as a coincidental and meaningless, though obstructive, occurrence which is to be disregarded; or they may behave as if there really had been none.

This last type of behavior is of a remarkable character. It appears in other connections than the situation of mistimed interference and may serve widely different purposes for the same or different subjects. Thus it may occur when the interference is limited to the purpose of demonstrating the trance state without affecting the actual performance of the posthypnotic act. In this case the subject merely ignores the most persistent efforts on the part of the hypnotist, completes his posthypnotic task, and awakens spontaneously with a total amnesia for the entire occurrence. Frequently it develops when the possibility of the posthypnotic act has been nullified; and it often appears when the posthypnotic suggestion is rendered objectionable in character to the subject or too difficult as a result of the interference. But of most interest is its tendency to occur almost invariably when, upon the initiation of the posthypnotic behavior, some person not in rapport with the subject intrudes into the situation by means of an interference directed primarily to the posthypnotic act.

Although these situations differ greatly, the pattern of the subjects' behavior is essentially the same for all of them, and the general course of the subjects' responses in each type of situation is adequately exemplified in the following accounts: At the previously established posthypnotic cue the subject glanced across the room at an easily visible book lying on the table and proceeded to rise from his chair for the purpose of securing the book and placing it in the bookcase in accord with the previously given posthypnotic instructions. As he shifted his position in his chair preparatory to rising, an assistant, not in rapport with the subject, quickly removed and concealed the book, this being done at a moment when the subject's gaze was directed elsewhere. Despite this absolute interference with the posthypnotic act the subject unhesitatingly performed the task by apparently hallucinating the book, and gave no evidence of any realization that something unusual had occurred. This same procedure, repeated with other subjects, has led in more than one instance to an even more hallucinatory and delusional response,—namely, upon actually noting that the book had vanished, glancing at the bookcase in a bewildered fashion, and then apparently hallucinating the book in the place suggested for it, and assuming that they have just completed the task. As one subject spontaneously explained:

It's funny how absent-minded you can get. For a minute there I intended to put that book in the bookcase, when actually I had just finished doing so. I suppose that's because it annoyed me so much just lying there that the thing before my mind was the doing of it, and that I hadn't got around yet to knowing that I had already done it.

Yet, upon resuming her seat, she spontaneously awakened and demonstrated a total amnesia inclusive even of her explanatory remarks.

Repetition of the procedure with these and with other subjects, but with the removal of the book effected while the subject's gaze was directed at it, sometimes led to similar results in that the removal of the book was not detected, thereby indirectly disclosing the defectiveness of the hypnotic subject's contact with the external environment and the tendency to substitute memory images for reality objects, behavior highly characteristic of the hypnotic state. In other instances the new position of the book was detected and the original position regarded as an illusion. Also in some instances plausible misconstructions were placed upon the new position or the detected movement, as for example: "*Why, who left this book lying in this chair? I remember distinctly seeing it on the table,*" or, "*I've been expecting that book to slip off the pile on the table all evening and at last it has. Do you mind if I put it in the bookcase?*" And, depending upon the actual experimental situation the real or an hallucinatory book would be recovered from the chair or the floor, and the posthypnotic act would be performed with the customary sequence of events.

Following this general type of posthypnotic behavior there develops either an amnesia complete in character and inclusive of both the posthypnotic act and the attendant circumstances, as well as of the subject's interpolated behavior, or, less frequently, a peculiar admixture of amnesia and fragmentary memories. These partial memories often tend to be remarkably clear, vivid, and distracting in character, and they may relate to the absolute facts or even to the hallucinatory and delusional items of the posthypnotic trance period. For example the last subject quoted above, when questioned for her recollections, recalled only that the hypnotist had a habit of piling books, papers, folders, and journals in untidy heaps, but she was unable to give a specific example of this practice. Another subject, in a similar experimental situation, remembered most vividly minute and utterly irrelevant details about the goldfish in the fish globe used only as a part of the environmental setting for the posthypnotic act, and he was most insistent that these memories constituted a complete account of the entire occurrence. Nevertheless some weeks later the subject disclaimed any memory of having made such statements.

### **THE EFFECT OF TIME UPON THE DEVELOPMENT OF THE SPONTANEOUS POSTHYPNOTIC TRANCE**

One other general consideration in relation to the development of a spontaneous trance upon the initiation of posthypnotic behavior concerns the possible effect of the lapse of time. In this regard, on a considerable number of occasions subjects have been given specific instructions in the form of a posthypnotic suggestion to perform some simple act, the nature of which varied from subject to subject. This act was to be "done without fail on the occasion of our next meeting." Among these subjects were some who were not seen after the giving of such posthypnotic suggestions for varying periods of months. Of this group all carried out the posthypnotic act, developing as they did so a spontaneous trance. Two other subjects were actually not seen until three years later, respectively, during which periods of time there was no form of contact between the hypnotist and the subjects. Nevertheless at chance meetings with them the performance of the posthypnotic act and the development of a concomitant spontaneous trance state occurred.

## **APPARENT EXCEPTIONS TO THE RULE OF SPONTANEOUS POSTHYPNOTIC TRANCES**

However, before continuing with a discussion of various significances of the spontaneous posthypnotic trance, it may be well to offer an explanation of the apparent absolute exceptions, mentioned previously, to the development of a spontaneous trance, in relation to the execution of posthypnotic suggestions.

These exceptions, in which there is a performance posthypnotically of the trance-suggested act without the apparent development of a spontaneous trance, arise usually from certain conditions which will be listed generally and illustrated as follows:

1. Failure of the development of an amnesia for the posthypnotic suggestions: In this situation there may be actually no posthypnotic performance as such, since the subjects understand from the beginning the underlying motivations and causes of behavior, and hence act at a level of conscious awareness. Consequently the performance becomes similar in character to one suggested to a person in the ordinary waking state, and it is posthypnotic only in its time relationships.

In such instances the act is essentially voluntary in character, although frequently another element may enter into the situation—namely, a sense of being compelled to perform the specified task, despite the subjects apparently complete understanding of the situation. Thus the subjects may remember their instructions and be fully aware of what they are to do and why they are to do it, and yet experience an overwhelming compulsion that causes them to perform the act with literally no choice on their part. Occasionally, however, subjects responding to this compulsion and executing the posthypnotic instructions develop, as they perform the task, a spontaneous trance. This trance often serves to establish for the subjects a more or less complete amnesia for the instructions, for the period of waiting with its usually unpleasant compulsive feelings, and for the act itself. The trance is similar in character to that which develops in the ordinary posthypnotic situation, with the exception that the amnesia it may cause tends to be more limited. Thus the subjects may remember the posthypnotic suggestions, the period of waiting, and the feeling of compulsion, but have a complete amnesia for their actual performance. Or they may develop an amnesia for the posthypnotic instructions but remember experiencing a compulsion to perform an apparently irrational act. However, in some instances the spontaneous trance serves as a defense mechanism against the compulsive feelings rather than as an essential or integral part of the atypical posttrance performance. Finally the development of compulsive feelings constitutes a marked alteration of the essential nature of the entire pattern of behavior.

2. Failure to make clear to subjects that the posthypnotic instructions given concern the act itself and not the process of making provision for such an act: Thus the subjects instructed to perform a certain task posthypnotically, may, after awakening, go through a mental process of realizing, sometimes vaguely, sometimes clearly, that a certain act is to be performed and then simply hold themselves in readiness for the act. Hence upon the performance of the task no spontaneous trance occurs. However, this does not constitute a negation of the statement that a spontaneous trance always accompanies the

posthypnotic performance, since close observation of the subjects in this situation will disclose that a spontaneous trance invariably accompanies this process of making ready for the act, provided that this understanding of their task occurs definitely after subjects have awakened from the trance in which the suggestion was given and not while they are going through a slow process of awakening, in which case the situation would become similar to that of the failure to develop amnesia.

3. Unwillingness on the part of the subjects to perform the posthypnotic act except as a deliberate act of choice on their part: Thus subjects may for some reason or whim object to the purely responsive character of a posthypnotic performance and react by making their response one of deliberate intention. In this situation, as in the foregoing example, there occurs upon awakening the same process of making ready for the suggested task, and hence upon the proper signal the posthypnotic performance is executed without the development of a spontaneous trance. However, this process of making ready for the act is again accompanied by a spontaneous trance.

4. The failure of the amnesia for the trance experiences: This is the most common and consists essentially in the spontaneous recovery of the memories of the events and experiences of the trance state. For example, subjects instructed to perform a posthypnotic act at a given time after awakening may, before the specified time, more or less slowly begin to recall their various trance experiences, among them the posthypnotic instructions. This process of recollection is not one of preparation for the posthypnotic performance, but constitutes rather a recovery of memories, motivated usually by a sense of curiosity, and it is free from any purposeful significance in relation to the actual suggested posthypnotic task. Literally it is a breaking through of memories because of an inadequacy of amnesic barriers. With the recovery of the memory of the posthypnotic suggestions a somewhat similar situation obtains as exists when there is a failure of the development of an amnesia for posthypnotic suggestion, which has been described above. In general, while this type of behavior is the most common, it is exceedingly difficult to understand fully because there is first an amnesia for, and then a recollection of, posthypnotic instructions and because the memories, however complete eventually, are recovered in a fragmentary fashion.

Hence the failure, apparent or absolute, to develop a spontaneous trance upon the initiation of the execution of an act suggested as a posthypnotic performance does not necessarily constitute a contradiction of our observation. Rather it implies that there may occur within the subject certain changes in the psychological situation. These in turn may serve to alter or to transform the character of the posthypnotic act itself and thus to render it one for which the subject has a preliminary awareness as well as an understanding of its underlying nature and cause. Hence the act becomes transformed into one posthypnotic in time relationships only.

## **SIGNIFICANCES OF THE SPONTANEOUS POSTHYPNOTIC TRANCE**

The significances of the spontaneous trance state as an integral part of the execution of posthypnotic suggestions are numerous and bear upon many important hypnotic questions. In particular they relate to such problems as the establishment of objective criteria for trance states and conditions, the training of subjects to develop more profound trances, and the direct elicitation of various hypnotic phenomena without a preliminary process of suggestion for trance induction. In addition the posthypnotic trance bears upon the general problem of dissociation, the various problems of individual hypnotic phenomena, such as rapport, amnesia, selective memories, catalepsy and dissociated states, and the general experimental and therapeutic implications of posthypnotic phenomena. Discussions of some of these considerations will be given in connection with our investigative work, but the reader will note that the experimental findings serve also to illustrate many points not directly mentioned.

## **THE SPONTANEOUS POSTHYPNOTIC TRANCE AS A CRITERION OF THE INDUCED HYPNOTIC TRANCE**

In relation to the establishment of criteria for trance states, our experience has been that the spontaneous posthypnotic trance constitutes a reliable indicator of the validity of the original trance, and in this belief we have been confirmed by the experience reported to us by others. Apparently the posthypnotic trance is a phenomenon of sequence; it is based upon the original trance and constitutes actually a revivification of the hypnotic elements of that trance. Especially does this inference seem to be warranted since careful observation will often disclose an absolute continuance in the spontaneous posthypnotic trance of the behavior patterns belonging actually to the original trance state. This may be illustrated by the following experimental findings, made originally by chance and since repeated on other subjects: During a single hypnotic trance the hypnotist gave a large number of unrelated posthypnotic suggestions, each of which was to be performed later as a separate task and in response to separate cues. Also, during the course of that trance the subject's state of rapport with two observers was made to vary from time to time by suggestions independent of the posthypnotic suggestions. Subsequently, upon the execution of the posthypnotic suggestions the spontaneous trance states that developed showed remarkable variations, in that the subject, while always in rapport with the hypnotist, variously manifested rapport with one or the other or both or neither of the two observers. Although this was not understood at the time, subsequent checking of the record disclosed that the state of rapport manifested in each spontaneous posthypnotic trance state constituted an accurate reflection of the exact state of rapport existing at the time of the giving of the particular posthypnotic suggestion. Aside from the question of the continuance of patterns of behavior, the bearing of this finding upon the question of rapport is at once apparent.

Since then investigative work has disclosed that proper wording of posthypnotic suggestions may effect either a continuance or an absence in the spontaneous trance of the general behavior patterns belonging to the trance state in which the posthypnotic

suggestion was given. Thus the giving of posthypnotic suggestions so worded as to carry an implication of a change or an alteration of the situation may militate against the evocation of original trance behavior. Yet the same suggestion so worded as to carry immediate as well as remote implications will usually serve to effect a continuance of the original trance behavior. To illustrate: During experimental work on this problem it was found that this wording of a posthypnotic suggestion, "*As I jingle my keys, you will invariably—*" often served to cause a continuance in the spontaneous posthypnotic trance of the behavior patterns belonging to the original trance, while "*Tomorrow, or whenever I jingle my keys, you will invariably—*" would fail in the same subject to elicit the behavior patterns of the original trance, since this wording implied possible changes in the situation. However, extensive work has shown that the behavior of subjects in carrying over the patterns of response belonging to the original trance is highly individualistic. Some almost invariably do so, others seldom or never, some almost wholly, others only in selected relationships, and the outcome of any experimental work is highly unpredictable, depending apparently upon the individuality of the subjects as well as their immediate understandings. Hence extreme care in wording suggestions is highly essential, and it should never be assumed that a subject's understanding of instructions is identical with that of the hypnotist. Neither should there be the assumption that an identical wording must necessarily convey an identical meaning to different subjects.

In other words the "standardized technique," or the giving of identical suggestions to different subjects, described by Hull (1933), is not, as he appears to believe, a controlled method for eliciting the same degree or type of response, but merely a measure of demonstrating the general limitations of such a technique.

Another type of evidence concerning the validity of the original trance is the failure to develop a spontaneous trance when apparently executing a Posthypnotic suggestion, by subjects who were merely complaisantly cooperative or who were overeager to believe that they were in a trance, or who, for various reasons, simulated effectively being hypnotized. In direct contrast to these subjects are those relatively rare persons who actually do go into a deep hypnotic trance but who, because of individual peculiarities, seem unable to realize the fact, or are unable to admit it to themselves, and hence refuse to believe that they are or ever have been hypnotized. Yet, invariably this latter class of subjects develops a spontaneous trance upon the execution of the posthypnotic suggestions, an occurrence which in itself often constitutes an effective measure in correcting their mental attitudes and misunderstandings.

Furthermore, in studies directed to the detection of the simulation of trance behavior the failure of a trance state to develop upon the execution of posthypnotic suggestions disclose any simulations. Nor does sophistication and coaching in this regard serve to enable on many occasions trained subjects, purposely kept unaware that the performance they were watching was one of deliberate pretense, have declared the apparent performance of a posthypnotic act to be "*not right*," "*something wrong*," or have stated, "*I don't get the right feeling from the way he did that*," but without being able to define

their reasons, since their own posthypnotic amnesias precluded full conscious understandings.

In brief, on innumerable occasions and under a variety of circumstances the spontaneous posthypnotic trance has been found to be characterized by the individual phenomena of the original trance state in which the posthypnotic suggestion was given, and to be an excellent measure of differentiating between real and simulated trances, especially so when the subjects, by being over cooperative deceive themselves. Likewise it has been found to be an effective measure in aiding responsive □hypnotic subjects who for personality reasons cannot accept the fact of their hypnotization. Also it can be used to demonstrate effectively the individuality and variety of responses that may be elicited under apparently controlled conditions.

### ***THE UTILIZATION OF THE SPONTANEOUS POSTHYPNOTIC TRANCE AS A SPECIAL HYPNOTIC TECHNIQUE***

Of particular importance is the utilization of the spontaneous posthypnotic trance as a special experimental and therapeutic technique. Its usefulness is varied in character and relates to the intimately associated problems of avoiding difficulties deriving from waking behavior, securing new trance states, training subjects to develop more profound trances, and eliciting specific hypnotic phenomena without direct or indirect suggestions made to that end.

The method of utilization is illustrated in the following experimental account: A five-year-old child who had never witnessed a hypnotic trance was seen alone by the hypnotist. She was placed in a chair and told repeatedly to "sleep" and to "sleep very soundly," while holding her favorite doll. No other suggestion of any sort was given her until after she had apparently slept soundly for some time. Then she was told, as a posthypnotic suggestion, that some other day the hypnotist would ask her about her doll, whereupon she was to (a) place it in a chair, (b) sit down near it, and (c) wait for it to go to sleep. After several repetitions of these instructions she was told to awaken and to continue her play. This threefold form of posthypnotic suggestion was employed since obedience to it would lead progressively to an essentially static situation for the subject. Particularly did the last item of behavior require an indefinitely prolonged and passive form of response, which could be best achieved by a continuation of the spontaneous posthypnotic trance.

Several days later she was seen while at play, and a casual inquiry was made about her doll. Securing the doll from its cradle, she exhibited it proudly and then explained that the doll was tired and wanted to go to sleep, placing it as she spoke in the proper chair and sitting down quietly beside it to watch. She soon gave the appearance of being in a trance state, although her eyes were still open. When asked what she was doing, she replied, "Waiting," and nodded her head agreeably when told insistently, "*Stay just like you are and keep on waiting.*" Systematic investigation, with an avoidance of any measure that might cause a purely responsive manifestation to a specific but unintentional hypnotic suggestion, led to the discovery of a wide variety of the phenomena typical of the

ordinary induced trance. A number of these will be cited in detail in the following paragraphs to illustrate both the procedure employed and the results obtained.

### **Catalepsy and Literalism**

The subject was asked if she would like to see a new toy the hypnotist had for her. Contrary to her ordinary behavior of excited response in such a situation, she simply nodded her head and waited passively for the hypnotist to secure the new toy (a large doll) from a place of concealment. She smiled happily when it was held up to her view, but made no effort to reach for it. Upon being asked if she would like to hold it, she nodded her head agreeably but still made no effort to take it. The doll was placed in her lap, and the hypnotist then helped her to nestle it in her right arm, but in such fashion that the arm was in a decidedly awkward position. She made no effort to shift the position of her arm but merely continued to look happily at the doll.

While she was so engaged, the hypnotist remarked that her shoestring was untied and asked if he might tie it for her. Again she nodded her head, and the hypnotist lifted her foot slightly by the shoestrings so that the task might be done more easily. When her foot was released, it remained in the position to which it had been elevated.

Following this she was asked if she would like to put the doll in its cradle. Her only response was an affirmative nod. After a few moments' wait she was asked if she would not like to do so at once. Again she nodded her head, but still continued to wait for specific instructions. Thereupon, the hypnotist told her to "go ahead," meanwhile picking up a book as if to read. The subject responded by repeated futile attempts to rise from the chair, but the catalepsy present, manifested by the continuance of the awkward position in which she was holding the doll and the elevation of her foot, prevented her from making the shift of position necessary for rising. She was asked why she did not put the doll in the cradle, to which she replied, "Can't." When asked if she wanted help, she nodded her head, whereupon the hypnotist leaned forward in such fashion that he pushed her leg down. Taking her by the left hand, he gently pulled her to a standing position with her arm outstretched, in which position it remained upon being released. She immediately walked over to the cradle but stood there helplessly, apparently unable to move either arm, and it became necessary to tell her to put the doll in the cradle. With this specific instruction the catalepsy disappeared from her arms and she was able to obey.

### **Rapport and Hallucinatory Behavior**

The subject was then asked to return to her original seat, where she continued to gaze in a passive manner at the first doll in its chair. One of the hypnotist's assistants entered the room, walked over and picked up that doll, and removed it to another chair. Despite the fact that the subject had her gaze directed fully at the doll, she made no response to this maneuver, nor did she appear to detect in any way the alteration of the situation. After a few moments the hypnotist asked her what she was doing. She replied, "*I'm watching my dolly.*" Asked what the doll was doing, she answered simply, "*Sleeping.*" At this point the assistant called the subject by name and inquired how long the doll had been sleeping, but

elicited no response. The question was repeated without results, whereupon the assistant nudged the subject's arm. The subject immediately looked briefly at her arm, scratched it in a casual fashion, but made no other response.

Following this the assistant secured the two dolls and dropped them into the hypnotist's lap. The subject was then asked if she thought both dolls liked to sleep, thereby causing her to shift her gaze from the empty chair to the hypnotist. She apparently failed to see the dolls in the new position, but when they were picked up and looked at directly by the hypnotist she immediately became aware of them, glanced hesitatingly at the chair and then at the cradle, and remarked, "*You got them now,*" and seemed to be very much puzzled. Yet when the assistant quietly took the dolls out of the hypnotist's hands and walked to the other side of the room, the subject apparently continued to see the dolls as if they were still held by the hypnotist. An attempt on the part of the assistant to call the subject's attention to the dolls failed to elicit a response of any sort from the subject.

The subject's mother then entered the room and attempted to attract her attention, but without results. Yet the subject could walk around, talk to the hypnotist, and see any particular object or person called directly to her attention by the hypnotist, although she was apparently totally unable to respond to anything not belonging strictly to the hypnotic situation.

## **Amnesia**

The others were dismissed from the room, the dolls were restored to the chair and the cradle respectively, and the subject to her seat, whereupon she was told to awaken. Immediately upon manifesting an appearance of being awake, the subject, returning to the initial situation, remarked in her ordinary manner, "*I don't think dolly is going to go to sleep. She's awake.*" She was asked various casual questions about the doll, following which the hypnotist remarked that maybe the doll did not like to go to sleep in a chair. Immediately the subject jumped up and declared her intention of putting the doll in its cradle, but when she attempted to do so she manifested very marked bewilderment at the presence of a new doll in the cradle. There was no recognition of it, no realization that she had ever seen the doll before, and no knowledge that it had been made a gift to her. She showed the typical excited childish desire for the new toy, asking whose it was and if she might have it. The assistant then reentered the room and picked up the doll, whereupon the subject began addressing remarks to the assistant. The assistant, replying to these, walked over to the chair and picked up the first doll. The subject made full and adequate response to this, disclosing complete contact with her surroundings and a complete amnesia for all trance occurrences.

Repetitions of the procedure upon the subject under varying circumstances led to similar findings. Likewise similar procedures have been employed with other naive and trained subjects of various ages with comparable results.

This general type of technique we have found especially useful both experimentally and therapeutically, since it lessens greatly those difficulties encountered in the ordinary

process of inducing a trance, which derive from the need to subordinate and eliminate waking patterns of behavior. Once the initial trance has been induced and limited strictly to passive sleeping behavior with only the additional item of an acceptable posthypnotic suggestion given in such fashion that its execution can fit into the natural course of ordinary waking events, there is then an opportunity to elicit the posthypnotic performance with its concomitant spontaneous trance. Proper interference, not necessary in the instance cited above because of the nature of the posthypnotic performance, can then serve to arrest the subject in that trance state.

However, it must be stated that to arrest subjects in the spontaneous trance and to have them remain in that state, the entire situation must be conducive to such a purpose, since any unwillingness on the part of the subjects will cause them to become unresponsive and to awaken. But under favorable circumstances subjects submit readily and fully to the new hypnotic situation in a passive, responsive fashion. Repeated intensive inquiry of subjects while in such prolonged trance states has disclosed no understanding of how the trance was secured nor any intellectual curiosity about it, and usually little or no spontaneous realization that they are in a trance. Rather there seems to be only a passive acceptance of their trance state marked by the automatic responsive behavior so characteristic of the ordinary deep induced trance.

By this general measure new trance states can be secured free from the limitations deriving from various factors such as the subject's mental set, deliberate conscious intentions regarding trance behavior, misconceptions, and the continuance of waking patterns of behavior. Under ordinary circumstances hypnotic subjects obeying a posthypnotic command are making a response to a suggestion of which they are unaware at a conscious level of understanding, and which belongs to another situation of which they are similarly unaware. In addition they become so absorbed and so automatic in their performance and so limited in their responses to their general environment there is little possibility of, and no immediate need for, the retention or continuance of conscious attitudes and patterns of behavior. Instead there is effected a dissociation from the immediate circumstances, more adequate and complete than can be achieved by suggestion in the usual process of trance induction. Hence the performance becomes exceedingly restricted in character, occurs at a level of awareness distinct from that of ordinary waking consciousness, and derives from a remote situation. In brief, it is a phenomenon of sequence, is based upon the revivification of the hypnotic elements of another situation, and thus is limited to hypnotic behavior.

The applicability of the above discussion to the problem of training subjects to develop more profound trances is apparent. Also the value of repeated trance inductions to secure more profound hypnotic states is generally recognized, and this same purpose can be served more satisfactorily, readily, and easily by the utilization of the posthypnotic performance and its concomitant trance. Especially is this so since the posthypnotic performance provides an opportunity to secure a trance state quickly and unexpectedly without the subjects having any opportunity to prepare themselves or to make any special and unnecessary adjustments for their behavior. Instead the subjects suddenly find themselves in the hypnotic state and limited to patterns of response and behavior

belonging only to that state. Hence training can be accomplished without a laborious process of effecting by suggestion a dissociation of waking patterns of behavior, provided of course that the subject is essentially willing to forego the passive participation constituting a part of the usual training procedure.

The direct evocation of specific hypnotic phenomena without recourse to suggestion has been illustrated in the experimental account above. While the same thing may be done in the ordinary induced trance, there has been frequent and often well-founded criticism to the effect that many times the hypnotic behavior elicited was a direct response to intentional or unintentional suggestions given during the trance induction or to unexpected constructions placed by the subject upon suggestions. Behavior so elicited is expressive only of the hypnotic tendency to automatic obedience, and it is not a direct expression of the hypnotic state itself. As shown in the above account, the utilization of the spontaneous posthypnotic trance permits a direct evocation of specific phenomena without the questionable effects of along series of suggestions given during the process of induction.

In the therapeutic situation the utilization of the spontaneous posthypnotic trance possesses special values for hypnotic psychotherapy, since it precludes the development of resistances and renders the patient particularly susceptible to therapeutic suggestions. Also the amnesia following this spontaneous trance is less easily broken down by the patient's desire to remember what suggestions have been given as is so often the case in relation to induced trances. Hence there is less likelihood of the patient controverting the psychotherapy given. In addition the spontaneous posthypnotic trance permits an easy combination of waking and hypnotic therapy, often an absolute essential for successful results. However, this problem of the combination of walking and hypnotic psychotherapy, or, more generally, the integration of hypnotic and posthypnotic behavior with the conscious stream of activity, does not come within the scope of this paper.

### **THE SPONTANEOUS POSTHYPNOTIC TRANCE AND DISSOCIATION PHENOMENA**

Little that is definitive can be said about the significance of the spontaneous trance in relation to both the original trance and the posthypnotic performance as dissociation phenomena, since extensive controlled experimental work needs to be done to establish this point as well as the concept itself. However, careful observation discloses consistently that posthypnotic behavior simply erupts or "breaks through" into the conscious stream of activity and fails to become an integral part of that activity except as a retrospective addition. Perhaps the best illustration of this dissociated character of the trance and the posthypnotic act may be found in the following examples: As the subject was conversing casually with others in the room, he was interrupted in the middle of a sentence by the predetermined cue for a posthypnotic act requiring a brief absence from the room. Immediately upon perceiving the cue, the subject discontinued the remark he was making, manifested the typical posthypnotic trance behavior, executed the act, returned to his chair, readjusted himself to his original position, seemed to go through a process of wakening, and took up his remark and continued it from the exact point of

interruption. Another subject, instructed to respond instantly to a sharp auditory stimulus serving as the cue for a posthypnotic act, was interrupted in the middle of the pronunciation of along word while casually conversing with others present. His performance of the posthypnotic act was then interfered with, and the subject was used for a period of 15 to 20 minutes to demonstrate to the observers present a variety of hypnotic phenomena, following which the subject was told to "go ahead." In obedience to this vague suggestion the subject proceeded to complete his performance of the posthypnotic act, returned to his original position, readjusted himself, awakened, and completed the utterance of the interrupted word and continued in the same line of conversation, apparently totally unaware that there had been a lengthy interruption.

A subject similarly interrupted in the midst of rapid typing and used to demonstrate various phenomena, upon returning to his original position at the typewriter awakened and unhesitatingly resumed his typing task without any apparent necessity to reorient himself visually. Apparently he had held his orientation to his task in complete abeyance for ready resumption. This same type of procedure, with various control measures, has been repeated many times with similar and consistent results.

Not always, however, do the subjects return after a posthypnotic performance with such precision to the original waking train of thought. Sometimes it is picked up further along in the natural course of its development, as is shown by an interruption of the subject by posthypnotic activity while reciting the first part of a poem and a continuation by the subject upon awakening with the recitation of the last part, with a discoverable firm belief on the part of the subject that the intervening stanzas had been recited. Some subjects, however, show marked confusion, which may be illustrated by the subject who declared "*I've forgotten what I was just talking about*," and required aid in renewing his remarks, but was found to believe that he had said more on the topic than was the fact. On still other occasions subjects have manifested a hazy awareness of the posthypnotic act and have digressed briefly to remark about some unusual circumstances apparently just discovered, as if seeking an explanation of the peculiar change in the situation of which they had just become somewhat aware. But on the whole, when subjects are left to readjust their behavior after an interpolated posthypnotic performance without interference of any sort from the observers, there tends to be a complete amnesia for the trance and its events and an approximate return to the general situation with seemingly no awareness of any changes in it.

From these examples, typical of numerous instances, the statement is warranted that the posthypnotic act and its spontaneously developed posthypnotic trance constitute forms of dissociation phenomena, and hence that they offer an opportunity to study experimentally the problem of dissociation. Similarly suggestive is the apparent continuance and independence of waking trains of thought during the trance state, despite other interpolated behavior as shown in the examples above.

Another comment that should be made before discussing the direct experimental implications concerns the usual conditions under which these observations were made □ namely those of a general social gathering in which the topic of hypnosis was discussed

with the possibility of demonstrations, but in such fashion that the subjects were unaware of any deliberate, specific experimental intentions in relation to them on the part of the authors and their assistants. Maneuvering of the conversation would lead to the recitation of a poem or the giving of some famous quotations by the subject or the carrying on of guessing games, thus permitting a demonstration of the continuance of the original waking trains of thought, despite any interruption that might be occasioned by posthypnotic acts. Our general purpose in these informal settings was the avoidance of those limitations or restrictions upon patterns of response that obtain when the subjects are aware that their behavior is under direct scrutiny. In our experience the necessity for the avoidance of overt study in hypnotic work cannot be overemphasized. The natural course of behavior rather than the limited formalized pattern that may be expected in a strictly laboratory setting usually proves the more informative.

### ***APPLICATIONS OF THE SPONTANEOUS POSTHYPNOTIC TRANCE IN EXPERIMENTAL WORK ON DISSOCIATION***

The dissociation and independence of posthypnotic behavior from the conscious stream of activity, and the failure of integration of hypnotically motivated behavior with ordinary behavior, constitute significant considerations for which there must be adequate provision in any experimental work involving both waking and posthypnotic behavior. Hence in studies directed to the investigation of the capacity to perform simultaneously different tasks, such as reading aloud in the waking state and doing mental addition as a posthypnotic task, provision must be made to keep the tasks entirely independent and not contingent upon one another. While provision is easily made for the posthypnotic activity, extreme care must be exercised to insure that the waking behavior derives entirely out of a situation belonging wholly to the waking state and that the development of a spontaneous posthypnotic trance does not interfere significantly with the waking behavior. In Messerschmidt's experiment, mentioned previously, none of these provisions was made, which accounts for her unsatisfactory and inconclusive findings.

One needs only to observe critically a subject in such an experimental situation as Messerschmidt devised to note the constant, rapid fluctuation from one state of awareness to another of a more limited character. The unsatisfactory results obtained under such conditions are not indicative of a lack of capacity on the part of the subject, but rather they indicate the obstructive effects of the posthypnotic trance developments and the interdependence of the two tasks. Accordingly, in experimental approaches to the concept of dissociation the problem is actually one of devising a technique by which the independence of the tasks is maintained despite any simultaneity of the performances.

In brief, an adequate technique should be one that limits the posthypnotic act to a single aspect of an entire task, of which the posthypnotic performance represents only the initiation or culmination of the unconsciously performed activity, while the consciously performed task derives wholly from the ordinary course of events belonging entirely to the waking situation.

To illustrate this type of technique, the following examples may be cited: A farm boy subject was instructed in the trance state that thereafter for a week every time he pumped water to fill a certain watering trough which was out of sight and hearing from the pump, and which was known by him to require 250 strokes of the pump handle to fill, he was to turn and walk to the trough the instant that it was full. Thus the posthypnotic act was an extremely limited part of a large implied task, and any posthypnotic trance manifestations would necessarily be limited to the specified posthypnotic act.

A few days later an agreement was made in the ordinary waking state that the subject would be relieved of a certain onerous task much disliked by him if he were able to spell correctly most of the words given him by the hypnotist, the words to be selected from his own school spelling book. To this the subject agreed eagerly, and as the spelling test started, the boy's father appeared, in accord with secret arrangements, and demanded that the watering trough be filled immediately. Accordingly the spelling test was conducted at the pump, where, as the subject pumped, one word after another was given him as rapidly as he spelled them. Suddenly the subject interrupted his spelling, ceased pumping, and turned and walked to the trough, his behavior typical of the posthypnotic trance state. The trough was found to be full. Repetitions of the experiment elicited the same results. Also, independent counting of the pump handle strokes disclosed the subject to be keeping accurate count despite the task of spelling. Yet repetitions of the experiment in which the subject was instructed to count the strokes silently as the posthypnotic task itself, while spelling aloud as a conscious task, led to unsatisfactory results—specifically, confusion of the spelling with the counting. This admixture in his performance bewildered him greatly, since as a consequence of his amnesia for the posthypnotic suggestions he could not understand his frequent utterance of a number in place of a letter in his spelling.

When an attempt was made to have this subject count the strokes and spell as simultaneous waking tasks, he was found to be totally unable to do so except by deliberate, purposeful pauses and by a definite alternation of tasks. After much effort in this regard the subject spontaneously suggested, "*I can guess the number of strokes better instead of trying to count them while I'm spelling.*" A test of this disclosed that the subject was able to "guess" accurately, but when he was questioned later in the hypnotic trance, he explained that the "guess" was only a conscious belief or understanding on his part, and that he had actually counted the strokes in the same manner as he had in the original experimental trials.

In a similar experiment a stenographer was told in the trance state that for the next week while taking dictation she would change pencils on the 320th word, the 550th word, and the 725th word. These instructions limited the posthypnotic act to a very small aspect of the total task. During that time she took dictation from three psychiatrists, each of whom noted the phrases at which she changed pencils. Despite the fact that she used many combined word phrases (symbols combining two or more words) it was discovered by count later that she approximated the correct number closely, never exceeding an error of 10 and averaging an error of three words.

Another important item is the fact that each time she changed pencils at the specified number of words, the subject became confused, manifested briefly the evidences of a spontaneous posthypnotic trance, and had to have a repetition of some of the dictation. Nevertheless she could change pencils elsewhere than on the specified words without any interruption of her writing. Furthermore her general behavior, except for the transient disturbances noted above, disclosed nothing unusual to the three psychiatrists, who, although unacquainted with the experimental situation, had been instructed to observe her behavior carefully and to give dictation at their customary speed, which ranged between 100 and 120 words a minute. Likewise, when the hypnotist himself gave her carefully timed dictation, no unusual behavior was noted except the transient disturbances in direct relation to the specified words.

Yet the same subject, instructed as the posthypnotic task to count the words as they were dictated, failed completely both in her counting and in her writing, as might be predicted if full consideration were given to habituation and learning processes and attention factors, apart from the influence of posthypnotic trance manifestations.

An attempt was made to have her perform the two tasks as a single waking performance, but she was found unable to divide her attention sufficiently both to count correctly and to attend to the dictation. However, when it was suggested to her that she attend only to the dictation and merely "guess" when she reached the designated number of words, it was found that she could approximate the correct count. In a subsequent hypnotic trance she explained that the permission to "guess" permitted her to dismiss the count from her "conscious mind" so that she "could do it subconsciously."

As a control measure for the above experiments nonhypnotic subjects and hypnotic subjects who had not been used in this type of experimentation were asked to "guess" in similar experimental situations. Their replies in all instances were found to be calculated, inaccurate approximations based upon various general considerations such as time elapsed or the number of pages covered, rather than an attempt to make an actual count.

A slightly different approach to the problem of simultaneous tasks at different levels of awareness is the utilization of posthypnotic suggestion simply to initiate a form of behavior which then continues as an automatic activity not impinging upon the subject's conscious awareness.

To illustrate: Another stenographer was instructed in the deep trance that the appearance of the hypnotist in her office would constitute a cue for her left hand to begin automatic writing without her conscious awareness of it, and that this writing was to be discontinued immediately upon his departure. Thus she was given posthypnotic suggestions serving directly to initiate and to terminate a certain form of behavior. Repeatedly thereafter, whenever the hypnotist entered her office, she manifested briefly the development of a posthypnotic trance with a definite disruption of her activities, particularly so if she were engaged in typing. Under such circumstances the posthypnotic trance would persist until she had been excused from one or the other of the two tasks. Care was taken, however, to enter her office frequently when she was sitting at a desk

engaged in taking dictation from some one of the hypnotist's colleagues. In this situation she would manifest a brief spontaneous posthypnotic trance which would disrupt her immediate activity, and this would be followed by a resumption of her normal dictation behavior, accompanied by a continuous automatic writing with her left hand, which would be done on the desktop, the desk blotter, or any handy sheet of paper. If no pencil were available, her hand would still go through writing movements. Upon the departure of the hypnotist from the office there would again occur a brief spontaneous posthypnotic trance resulting in a disruption of her normal dictation behavior and a discontinuance of the automatic writing.

On more than one occasion one of the psychiatrists giving dictation, who had the habit of sitting with his back toward her, responded to the interruption occasioned by the spontaneous trance and her consequent request for repetition as if it were caused by some unfamiliar medical term or by unclear enunciation on his part and he did not become aware of the additional posthypnotic activity. There seemed to be no interference by the automatic writing with the conscious waking performance, although the automatic writing often included phrases from the dictation as well as other sentences and phrases related to other matters.

It was also possible for the hypnotist to give dictation to this subject in the ordinary course of the daily routine, but the spontaneous posthypnotic trance developed when he entered her office for this purpose tended to be more prolonged than was the case when his entrance, merely interrupted the dictation of the other psychiatrists.

When, however, an attempt was made to have this subject take dictation after she had been allowed to become consciously aware of the fact that her left hand was doing automatic writing, it was discovered that she could not take dictation successfully, nor could she do the automatic writing except by a process of alternating the tasks. When ample proof had been given to her that she had performed such tasks simultaneously in the past, she explained that she could probably do it if she were not asked to keep the automatic writing in mind while taking dictation, that she could take dictation adequately if she were permitted to "forget about the automatic writing."

In these three examples the spontaneous posthypnotic trance was limited to a minor aspect of the larger implied posthypnotic task, hence its interference with the concurrent conscious activity was decidedly brief in character. Also, in each instance neither of the two tasks performed simultaneously was contingent upon the other. The waking one derived entirely out of the routine course of ordinary waking events having no relation, however remote, to the trance state in which the posthypnotic suggestions were given. In all instances the subjects were entirely free to engage simultaneously in two wholly independent activities without the burden of a third task of coordinating them.

Apparently, then, the essential technical consideration in the simultaneous performance of two separate and distinct tasks, each at a different level of awareness, which is not ordinarily possible at a single level of awareness, consists in the provision of some form of motivation sufficient to set into action a train of learned activity which will then

continue indefinitely at one level of awareness, despite the initiation or continuation of another train of activity at another level.

## **CONCLUSIONS**

1. A survey of the literature discloses that although there has been frequent recognition of the fact that posthypnotic suggestions lead to the development of a peculiar mental state in the hypnotic subject, there has been no direct study made of that special mental condition. Neither has there been provision nor allowance made for its existence and its possible significant influences upon results obtained from posthypnotic suggestions.
2. The significant change in the subject's mental state, in direct relation to the performance of the posthypnotic act, has been found by extensive observation and experimentation to signify the development of a spontaneous, self-limited posthypnotic trance, which constitutes an integral part of the process of response to, and execution of posthypnotic commands.
3. The spontaneous posthypnotic trance may be single or multiple, brief or prolonged, but in general it appears for only a moment or two at the initiation of the posthypnotic performance, and hence it is easily overlooked. Its specific manifestations and residual effects form an essentially constant pattern, despite variations in the duration of the separate items of behavior caused by the purposes served and the individuality of the subjects.
4. Demonstration and testing of the spontaneous posthypnotic trance are usually best accomplished at the moment of the initiation of the posthypnotic performance by interference either with the subject or with the suggested act. Properly given, such interference ordinarily leads to an immediate arrest in the subject's behavior and to a prolongation of the spontaneous posthypnotic trance, permitting a direct evocation of hypnotic phenomena typical of the ordinary induced hypnotic trance. Occasionally, however, special types of hypnotic behavior may be elicited by interference improperly given or which causes a significant alteration of the posthypnotic performance.
5. The lapse of an indefinite period of time between the giving of a posthypnotic suggestion and the opportunity for its execution does not affect the development of a spontaneous posthypnotic trance as an integral part of the posthypnotic performance.
6. Apparent exceptions to the development of the spontaneous posthypnotic trance as an integral part of the posthypnotic performance are found to derive from significant changes in the intended posthypnotic situation which alter or transform it into one of another character.
7. The spontaneous posthypnotic trance is essentially a phenomenon of sequence, since it constitutes a revivification of the hypnotic elements of the trance situation in which the specific posthypnotic suggestion was given. Hence its development is a criterion of the validity of the previous trance.

8. The spontaneous posthypnotic trance may be used advantageously as a special experimental and therapeutic technique, since it obviates various of the difficulties inherent in the usual method of trance induction.
9. The posthypnotic performance and its associated spontaneous trance constitute dissociation phenomena, since they break into the ordinary stream of conscious activity as interpolations, and since they do not become integrated with the ordinary course of conscious activity.
10. Posthypnotic suggestion may be utilized effectively to study the capacity to perform simultaneously two separate and distinct tasks, each at a different level of awareness, if adequate provision be made for the nature and character of posthypnotic behavior.

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## Varieties of Double Bind

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When I was a boy on the farm, it was not uncommon for my father to say to me, "Do you want to feed the chickens first or the hogs, and then do you want to fill the woodbox or pump the water for the cows first?"

What I realized then was that my father had given me a choice; I as a person had the primary *privilege* of deciding which task I was to do first. I did not realize at the time that this primary privilege rested entirely upon my *secondary* acceptance of all the tasks mentioned. I was unwittingly committed to the performance of the tasks which had to be done by being given the primary privilege of determining their order. I did not recognize that I was accepting the position of being placed in a double bind. The tasks had to be done; there was no escaping the fact that the kitchen range burned wood to cook my breakfast and that the cows did need to drink. These were items of fact against which I could not rebel. But I did have the profoundly important privilege as an individual of deciding in which order I should and would do them. The conception of what a double bind was escaped me, though I often wondered why I was seemingly willing to "pick off" potato bugs or hoe potatoes rather than playing.

My first well-remembered intentional use of the double bind occurred in early boyhood. One winter day, with the weather below zero, my father led a calf out of the barn to the water trough. After the calf had satisfied its thirst, they turned back to the barn, but at the doorway the calf stubbornly braced its feet, and despite my father's desperate pulling on the halter, he could not budge the animal. I was outside playing in the snow and, observing the impasse, began laughing heartily. My father challenged me to pull the calf into the barn. Recognizing the situation as one of unreasoning stubborn resistance on the part of the calf, I decided to let the calf have full opportunity to resist, since that was what it apparently wished to do. Accordingly I presented the calf with a double bind by seizing it by the tail and pulling it away from the barn, while my father continued to pull it inward. The calf promptly chose to resist the weaker of the two forces and dragged me into the barn.

As I grew older I began employing my father's alternate-choice double bind on my unsuspecting siblings to secure their aid in the performance of farm chores. In high school I used the same approach by carefully arranging the order in which I did my homework. I put myself in a double bind by doing the bookkeeping (which I disliked) first and then the geometry (which I liked) as a reward. I gave myself a reward, but the double bind was arranged so that all the homework was done.

In college, I became more and more interested in the double bind as a motivational force for the self and others. I began experimenting by suggesting to classmates the performance of two tasks, both of which I knew they would reject if presented singly. They would, however, execute one or the other if I made the refusal of one contingent upon the acceptance of the other.

I then began reading autobiographies extensively and discovered that this way of managing behavior was age-old. It was an item of psychological knowledge that properly belonged to the public domain and no one person could lay claim to it. Coincident with the development of my interest in hypnosis I began to realize that the double bind could be used in a variety of ways. In hypnosis the double bind could be direct, indirect, obvious, obscure, or even unrecognizable.

I found the double bind to be a remarkable force, but dangerously double-edged. In negative, enforced, and competitive situations the double bind yields unfortunate outcomes. As a child, for example, I knew where all the best berry patches were. I'd offer to show them to my companions if I could keep all I picked plus half of what they picked. They would accept the deal eagerly but later they would greatly resent it when they actually saw how much I got. In college I was interested in debating, but when I tried to employ the double bind I always lost. The judges invariably sought me out after the debate to tell me that I had actually won but that I had so aroused their antagonism that they could not help voting me down. The result was that I never made the college debating team, even though I was frequently proposed. I noted in these debating contests that double bind arguments lead to unfavorable reactions when those double binds were in favor of myself against an opponent. I learned that the competent debater was the one who presented a double bind argument in favor of his opponent and then demolished the advantage he had given his opponent.

*It took me a long time to realize that when the double bind was used for personal advantage it led to bad results.* When the double bind was employed for the other person's benefit, however, there could be lasting benefit. I therefore practiced it extensively in favor of my roommates, classmates, and professors with the knowledge that I would eventually use it to help patients.

When I entered psychiatry and began hypnotic experimentation at the clinical level (the experimental level had been previously explored extensively), the double bind became an approach of extensive interest for eliciting hypnotic phenomena and therapeutic responses.

In essence, the double bind provides an illusory freedom of choice between two possibilities, neither of which is really desired by the patient but both of which are actually necessary for his welfare. Perhaps the simplest example is provided by children's reluctance about going to bed. Instructed that they must go to bed at 8:00 P.M., they have the feeling of being coerced. If however, those same children are asked, "Do you want to go to bed at a quarter of eight or at eight o'clock?" the vast majority respond by selecting of their own "free will" the latter (which was actually the intended time). Regardless of

which specified time the children select, they commit themselves to the task of going to bed. Of course children can say that they do not want to go to bed at all, whereupon another double bind can be employed, "Do you wish to take a bath before going to bed, or would you rather put your pajamas on in the bathroom?" This latter example illustrates the use of a non sequitur in a double bind. The lesser of the two evils is usually accepted. Either choice, however, confirms the matter of going to bed, which long experience has taught the children is inevitable. They have a sense of free choice about it, but their behavior has been determined.

Psychiatric patients are often resistant and withhold vital information indefinitely. When I observe this, I emphatically admonish them that they are not to reveal that information this week—in fact, I am insistent that they withhold it until the latter part of next week. In the intensity of their subjective desire to resist, they fail to evaluate adequately my admonition; they do not recognize it as a *double bind requiring them both to resist and to yield*. If the intensity of their subjective resistance is sufficiently great, they may take advantage of the double bind to disclose the resistant material without further delay. They thereby achieve their purpose of both communication and resistance. Patients rarely recognize the double bind when used on them, but they often comment on the ease they find in communicating and handling their feelings of resistance. In the cases that follow the critical reader may question the effectiveness of double binds because he is actually on a secondary level when he reads *about* them. The patients, who come to therapy with many emotional needs, however, are on a primary level when they are exposed to the double bind; they are usually unable to analyze them intellectually, and their behavior is thereby structured by them. The uses of the double bind are greatly facilitated by hypnosis, and it adds greatly to the multitude of ways in which it can be used.

## CASE ONE

A 26-year-old man with a M.A. degree in psychology came reluctantly to the writer for hypnotherapy at his father's dictatorial demand. His problem was fingernail biting, begun at the age of four as a measure of escaping four hour's daily practice at the piano. He had bitten his fingernails to the quick until they bled, but his mother was unmoved by the bloodstains on the keys. He continued the piano and the fingernail biting until the latter had become an uncontrollable habit. He resented greatly being sent for hypnotherapy and freely stated so.

I began by assuring him that he was justified in his resentment, but I was amused that he had allowed himself to participate in self-frustration for 22 long years. He looked at me in a puzzled way so the explanation was given, "To get out of playing the piano you bit your fingernails to the quick until it became an unbreakable habit despite the fact you have wanted long fingernails. In other words, for 22 years you have literally deprived yourself of the privilege of biting off a good sized piece of finger nail, one that you could really set your teeth on satisfactorily."

The young man laughed and said, "I see exactly what you are doing to me. You are putting me in the position of growing fingernails long enough to give me some genuine

satisfaction in biting them off and making the futile nibbling I'm doing even more frustrating." After further semi-humorous discussion he acknowledged that he was not sure he really wanted to experience a formal hypnosis. I accepted this by adamantly refusing to make any formal effort. This constituted a reverse-set double bind: He asked for something he was not sure he really wanted. It was refused. Therefore, he was bound to want it, since he could now do so safely.

In the ensuing conversation, however, *his interest was maintained at a high pitch and his attention was rigidly fixated*, as he was told earnestly and intently that he could grow one long fingernail. He could take infinite pride in getting it long enough to constitute a satisfying bite. At the same time he could frustrate himself thoroughly by nibbling futilely at the tiny bits of nail on the other nine digits. Although no formal trance was induced, his high response attentiveness indicated he was in what we might call "the common everyday trance" that is brought on by any absorbing activity or conversation.

This light trance suggestion was reinforced by the measure of arousing him with casually irrelevant remarks and then repeating the instructions. What is the purpose of this measure? When you casually repeat suggestions in the awake state right after they heard them in trance, the *patients say to themselves*, "Oh, yes, I know that already, it's okay." In saying something of this sort to themselves the patients are actually taking the first important step toward internalizing and reinforcing the suggestion as aspects of their own inner worlds. It is this internalization of the suggestion that makes it an effective agent in behavior change.

Many months later the patient returned to display normal fingernails on each hand. His explanation, while uncertain and groping, is adequately descriptive of the effect of the double bind. He explained, "At first I thought the whole thing hilariously funny, even though you were serious in your attitude. Then I felt myself being pulled two ways. I wanted 10 long fingernails. You said I could have one only, and I had to end up by biting it off and getting a 'real mouthful of fingernail.' That displeased me, but I felt compelled to do it and to keep gnawing at my other fingernails. That frustrated me painfully. When the one fingernail started growing out, I felt pleased and happy. I was more resentful than ever at the thought of biting it off, but I knew I had agreed to do so. I eventually got around that by growing a second nail—that left eight fingers to gnaw on, and I wouldn't have to bite the second long one off. I won't bore you with details. Things just got more confusing and frustrating. I just keep on growing more nails and nibbling on fewer fingers, until I just said 'To hell with it!' That compulsion to grow nails and nibble nails and to feel more frustrated all the time was just unbearable. Just what were the motivations you put to work in me and how did it work?"

Now, more than eight years later, he is well-advanced in his profession. He is well-adjusted, a personal friend, and he has normal fingernails. He is convinced that the writer used hypnosis on him to some degree because he still remembers a "peculiar feeling, as if I couldn't move, when you were talking to me."

## CASE TWO

A father and mother brought their 12-year-old son in to me and said: "This boy has wet the bed every night of his life since he was an infant. We've rubbed his face in it; we've made him wash his things; we've whipped him; we've made him go without food and water; we've given him every kind of punishment and he is still wetting the bed." I told them, "Now he is my patient. I don't want you interfering with any therapy that I do on your son. You let your son alone, and you let me make all my arrangements with your son. Keep your mouths shut and be courteous to my patient." Well, the parents were absolutely desperate, so they agreed to that. I told Joe how I had instructed his parents and he felt very pleased about it. Then I said, "you know Joe, your father is 6'1", he is a great big powerful husky man. You are only a 12-year-old kid. What does your father weigh? Two hundred twenty, and he isn't fat in the least. How much do you weigh? One hundred seventy." Joe couldn't quite see what I was driving at. I said, "Do you suppose it is taking a deuce of a lot of energy and strength to build that great bid beautiful chassis on a 12-year-old kid? Think of the muscle you've got. Think of the height you've got, the strength you've got. You have been putting an awful lot of energy in building that in 12 short years. What do you think you'll be when you are as old as your father? A shrimpy six foot two weighing only 220 pounds, or do you think you will be taller than your father and heavier than your father?" You could see Joe's mind turning handsprings in all directions, getting a new body image of himself as a man. Then I said, "As for your bed-wetting you have had that habit for a long time and this is Monday. Do you think you can stop wetting the bed, have a permanent dry bed by tomorrow night? I don't think so, and you don't think so, and nobody with any brains at all will think that sort of thing. Do you think you will have a dry bed permanently by Wednesday? I don't. You don't. Nobody does. In fact, I don't expect you to have a dry bed at all this week. Why should you? You have had a lifelong habit, and I just simply don't expect you to have a dry bed this week. I expect it to be wet every night this week and you expect it. We're in agreement, but I also expect it to be wet next Monday, too, but you know there is one thing that really puzzles me and I really am absolutely thoroughly puzzled—*will you have a dry bed by accident on Wednesday or will it be on Thursday, and you'll have to wait until Friday morning to find out?*"

Well, Joe had been listening to me, and he wasn't looking at the walls, the carpet, or the ceiling or the light on my desk or anything else. He was in the common everyday trance listening to all these new ideas, things he had never thought of before. Joe didn't know I was putting him in a double bind because the question wasn't, "Will I have a dry bed?" The question really was, "*which night?*" He was in a mental frame of reference to find out *which night* he would have the dry bed. I continued, "You come in next Friday afternoon and tell me whether it was Wednesday or Thursday, because *I don't know; you don't know. Your unconscious mind doesn't know. The back of your mind doesn't know, the front of your mind doesn't know. Nobody knows. We will have to wait until Friday afternoon.*" So "we" both waited until Friday afternoon, and Joe came in beaming and he told me the most delightful thing, "Doctor, you were mistaken, it wasn't Wednesday or Thursday, it was both Wednesday and Thursday." I said, "Just two dry beds in succession doesn't mean that you are going to have a permanent dry bed. By next week half of the month of January is gone, and certainly in the last half you can't learn to have

a permanent dry bed, and February is a very short month.” (Never mind the speciousness of that argument, because February is a short month.) “*I don't know whether your permanent dry bed will begin on March 17, which is St. Patrick's Day, or will it begin on April Fools Day. I don't know. You don't know either, but there is one thing I do want you to know, that when it begins it is none of my business. Not ever, ever, ever is it going to be any of my business.*”

Now why should it be any of my business when his permanent dry bed began? That was actually a posthypnotic suggestion that would go with him for the rest of his life. Now that is what you call a double bind. Little Joe couldn't understand what a double bind was. *You use double binds and triple binds always as a part of the strategy of psychotherapy. You present new ideas and new understandings and you relate them in some undisputable way to the remote future.* It is important to present therapeutic ideas and posthypnotic suggestions in a way that makes them contingent on something that will happen in the future. Joe would get older and taller. He would go on to high school and college. I never mentioned high school to him. I mentioned college, the remote future and the idea of being a football player. I didn't want him thinking about a wet bed. I wanted him thinking about the remote future and the things he could do instead of thinking: what am I going to do tonight—wet the bed.

### CASE THREE

The serious question of what constitutes power and dominance and strength and reality and security had apparently been given considerable thought by Lal, approximately eight years old. At all events, shortly before the evening meal he approached his father and remarked interrogatively, “Teachers always tell little kids what they have to do?” An interrogative “yes” was offered in reply. Lal proceeded “And Daddys and Mammas always, always, tell their little children what they got to do?” Another interrogative affirmation was offered. Continuing, Lal said, “And they make their little children do what they say?” A questioning assent was given.

Bracing himself firmly with his feet widely apart, Lal declared through clenched teeth, “Well, you can't make me do a single thing, and to show you, I won't eat dinner and you can't make me.”

The reply was made that his proposition seemed to offer a reasonable opportunity to determine the facts, but that it could be tested in a manner fully as adequate if he were to declare that he could not be made to drink an extra glass of milk. By this test, it was explained, he could enjoy his evening meal, he would not have to go hungry, and he could definitely establish his point of whether or not he could be made to drink his milk. After thinking this over, Lal agreed but declared again that he was willing to abide by his first statement if there were any doubt in the father's mind about the resoluteness of his declaration. He was airily assured that the glass of milk being extra large would be an easily adequate test.

A large glassful of milk was placed in the middle of the table where it would be most noticeably in full view, and dinner was eaten in a leisurely fashion while the father outlined the proposed contest of wills.

This exposition was made carefully, and the boy was asked to approve or disapprove each statement made so that there could be no possible misunderstandings. The final agreement was that the issue would be decided by the glass of milk and that he, Lal, affirmed that his father could not make him drink the milk, that *he did not have to do a single thing his father told him to do about the milk*. In turn, the father said that he could make Lal do anything he wanted Lal to do with the milk, and that *there were some things he could make Lal do a number of times*.

When full understanding had been reached and it was agreed that the contest could begin, the father commanded, "Lal, drink your milk." With quiet determination the reply was made, "I don't have to and you can't make me."

This interplay was repeated several times. Then the father said quite simply, "Lal, spill your milk."

He looked startled, and when reminded he had to do whatever he was told to do about his milk, he shook his head and declared "I don't have to." This interplay was also repeated. several times with the same firm negation given.

Then Lal was told to drop the glass of milk on the floor and thus to break the glass and spill the milk. He refused grimly.

Again he was reminded that he had to do with the milk whatever he was told to do, and this was followed with the stern admonition, "Don't pick up your glass of milk." After a moment's thought he defiantly lifted the glass. Immediately the order was given, "Don't put your glass down." A series of these two orders was given, eliciting consistently appropriate defiant action.

Stepping over to the wall blackboard the father wrote "Lift your milk" and at the other he wrote, "Put your milk down." He then explained that he would keep tally of each time Lal did something he had been told to do. He was reminded that he had already been told to do both of those things repeatedly, but that tally would now be kept by making a chalk mark each time he did either one of those two things he had been previously instructed to perform.

Lal listened with desperate attention.

The father continued, "Lal, don't pick up your glass," and made a tally mark under "Lift your milk," which Lal did in defiance. Then, "Don't put your milk down" and a tally mark was placed under, "Put your milk down" when this was done. After a few repetitions of this, while Lal watched the increasing size of the score for each task, his

father wrote on the blackboard, "Drink your milk" and "Don't drink your milk," explaining that a new score would be kept on these items.

Lal listened attentively but with an expression of beginning hopelessness.

Gently he was told, "Don't drink your milk now." Slowly he put the glass to his lips but before he could sip, he was told, "Drink your milk." Relievedly he put the glass down. Two tally marks were made, one under "Put your milk down," and one under "Don't drink your milk."

After a few rounds of this, Lal was told not to hold his glass of milk over his head but to spill it on the floor. Slowly, carefully he held it at arm's length over his head. He was promptly admonished not to keep it there. Then the father walked into the other room, returned with a book and another glass of milk, and remarked, "I think this whole thing is silly. Don't put your milk down."

With a sigh of relief Lal put the glass on the table, looked at the scores on the blackboard, sighed again, and said, "Let's quit, Daddy."

"Certainly, Lal. It's a silly game and not real fun, and the next time we get into an argument, let's make it really something important that we can both think about and talk sensibly about."

Lal nodded his head in agreement.

Picking up his book, the father drained the second glass of milk preparatory to leaving the room. Lal watched, silently picked up his glass, and drained it.

Reality, security, definition of boundaries and limitations all constitute important considerations in the childhood growth of understandings. There is a desperate need to reach out and to define one's self and others. Lal, with full and good respect for himself as a person and as an intelligent person, challenged an opponent whom he considered fully worthy and who, to Lal's gain, demonstrated no fearful sense of insecurity upon being challenged to battle.

The battle was one in defense of a principle considered by one contestant to be of great merit, and his opinion was rigorously respected but regarded as faulty by the other contestant. It was not a petty quarrel for dominance between two petty persons. It was the determination of the worth of a principle. Lines were drawn, understandings reached, and forces were engaged in the struggle for the clarification of an issue finally demonstrated by both contestants to be in error and of no further importance.

More than 20 years have elapsed, and Lal has children of his own. He recalls that experience with pleasure and amusement and also with immense personal satisfaction. He defines it as "one time when I felt that I was really learning a lot. I didn't like what I was

learning, but I was awful glad I was learning it. It just made me feel real good inside the way a little kid likes to feel. I even want to say it like a little child."

## CASE FOUR

One day one of my children looked at the spinach on the dinner table and said, "I'm not going to eat any of that stuff!" I agreed with him totally, "Of course not. You are not old enough, you are not big enough, you are not strong enough." This is a double bind that makes his position less tenable and the spinach more desirable. His mother took his side by maintaining that he was big enough, and the issue then became an argument between his mother and me. The boy, of course, was on her side. I finally offered the compromise of letting him have a half a teaspoon full. They felt that was an unsatisfactory offer so I had to let him have half a dish. He ate that as fast as he could and loudly demanded more. I was reluctant but his mother agreed with him. Then very grudgingly I admitted "You are bigger and stronger than I thought." That now gave him a new status in his own eyes. I did not directly ask him to revise his self-image, but it occurred *indirectly* by (a) giving him an opportunity, a stage (the two sides of the argument between his mother and I) on which he could view and carefully consider a *revision of his own behavior*, and (b) the implications of this behavior change which he drew himself from my grudging admission of his growth. The essence of this indirect approach is that it arranges circumstances that permit subjects to make their own appropriate choices.

## ERICKSON'S CLINICAL APPROACH TO THE DOUBLE BIND

A review of Erickson's charming presentation of his approach to the double bind reveals the following characteristics.

1. The issues the patient is involved in are usually of immediate and deeply involving personal concern. There is *high motivation* that Erickson structures into the form of a double bind that can be used for behavior change. This is evident in all cases, from the calf-tail pulling incident of his childhood to the problems of dealing with resistant patients.
2. Erickson always *accepts* the patient's immediate reality and frames of reference. He forms a *strong alliance* with *many different sides and levels* within the patient.
3. The patient has a problem because different response tendencies are in conflict in such a way that behavior change is stalemated. Erickson *facilitates expression of all response tendencies in such a way that the stalemated conflict is broken*. This was particularly evident in the case of the piano-playing nail biter who wanted to (a) frustrate his parents and yet (b) break his nail-biting habit, (c) enjoy long fingernails, and yet (d) enjoy biting off along nail. He wanted to (e) resist his father's demand for hypnosis and yet (f) have it for his own purpose in his own way.
4. Erickson invariably adds something new to the situation that is related to the patient's central motivations in such a way that the patient is fascinated. The patient is opened with curiosity about the new point of view that Erickson is presenting; *he develops a creative moment (Rossi, 1972), or acceptance set, for*

*all the suggestions that follow.* The patient listens with such attentiveness that a formal trance induction is often unnecessary. The patient listens with that sort of rapt response attentiveness that Erickson recognizes as the *common everyday trance*.

5. The actual double bind is set by implications which structure the critical choices within the patient's own associative matrix. This was particularly evident in the way the father structured his son Lal's defiance into an appropriate issue where a reverse-set double bind could operate within the son. The father then "exercised" the reverse set to make sure it had "taken hold" before giving the critical suggestion. The importance of structuring and utilizing the patient's own internal responses to facilitate suggestions was emphasized in the piano-playing nail biter when Erickson *casually* repeated important suggestions so the patient would naturally affirm that he had already had them.
6. Erickson usually offers a number of double or triple binds. The double bind does not work by magic. It only works if it fits an appropriate need or frame of reference within the patient. The simple case where one double bind fits so exquisitely as to effect a precise and predictable behavior change all by itself as in the case of Lal is probably rare. Erickson does not always know beforehand which double bind or suggestion will be effective. He usually uses a buckshot approach of giving many suggestions but in such an innocuous manner (via implications, casualness, etc.) that the patient does not recognize them. While watching Erickson *offer* a series of double binds and suggestions, Rossi frequently had the impression of him as a sort of mental locksmith now gently trying this key and now that. He watches the patient intently and *expectantly*, always looking for the subtle changes of facial expression and body movement that provide an indication that the tumblers of the patient's mind have clicked; he has found a key that works much to his mutual delight with the patient.
7. Erickson tries to tie the double bind and posthypnotic suggestions of behavior change to reasonable future contingencies. *The suggestion is made contingent on an inevitability.* Erickson thus uses both time and the patient's own inevitable behavior as vehicles for the suggestions. Again we note that the effectiveness of Erickson's approach is in the way he binds his suggestions to processes occurring naturally within the patient. The effective suggestion is one that is tailor-made to fit within the patient's own associative matrix. Erickson is always busy observing and tinkering for the best fit.

## **THE VARIETIES OF DOUBLE BIND AND RUSSELL'S THEORY OF LOGICAL TYPES**

Erickson's first unrealized exposure to the double binds that bound him to his humble farm chores reveals a fundamental characteristic of all double binds: There is free choice on a *primary* or *object* level that is recognized by the subject, but behavior is highly structured on a *secondary* or *metalevel* in a way that is frequently unrecognized. Other investigators (Bateson, 1972; Haley, 1963; Watzlawick, Beavin, & Jackson 1967; Watzlawick, Weakland, & Fisch, 1974) have related this fundamental characteristic of the double bind to Russell's Theory of Logical Types in Mathematical Logic (Whitehead

& Russell, 1910), which was developed to resolve many classical and modern problems of paradox in logic and mathematics. The double bind, from this point of view, can be understood as a kind of paradox that the subjects cannot easily resolve so they “go along with it” and allow their behavior to be determined. In this sense the double bind can be recognized as a fundamental determinant of behavior on a par with other basic factors such as reflexes, conditioning, and learning.

The free choice on the primary level of deciding whether to feed the chickens or hogs first was actually contained within a wider framework, the secondary or metalevel, of “tasks which had to be done.” Little Erickson could question what he wanted to do first on the primary level and he could feel proud of being permitted choice on that level. What the boy Erickson could not question was the metalevel of “tasks which had to be done.” No one could question the metalevel, probably not even his father, because it was a mental framework that was built-in on the meta- or unconscious level as a basic assumption of their way of life. These first examples of the double bind may therefore be described as *free choice of comparable alternatives* on a primary level with the acceptance of one of the alternatives determined on a metalevel.

### **FREE CHOICE OF COMPARABLE ALTERNATIVES**

For didactic purposes we may now list how a number of double binds of this type can be used to facilitate hypnosis and therapy. The positive metalevel determines that one of the free choices among comparable alternatives *will be accepted* in the therapeutic situation itself. Because we come to therapy of our own free will, for our own good, *we will accept* at least some of the therapeutic choices that are offered. The “transference” and “rapport” are also binding forces that usually operate at an unconscious or metalevel. In hypnosis we may consider that it is the trance situation itself which is the metalevel determining that some choice will be accepted among the comparable alternatives presented on the primary level by the hypnotherapist. In the following examples free choice is offered on the primary level of the “when” or “how” of trance, but it is determined on a metalevel that *trance will be experienced*.

“Would you like to go into trance now or later?”

“Would you like to go into trance standing up or sitting down?”

“Would you like to experience a light, medium, or deep trance?”

“Which of you in this group would like to be first in experiencing a trance?”

“Do you want to have your eyes open or closed when you experience trance?”

It is easily seen from the above that there is an infinite number of such double binds that can be constructed in the form of a simple question offering free choice among comparable alternatives, one of which will be chosen. The skill of the therapist is in

recognizing which possible sets of alternatives will be most appealing and reinforcing for the patient to choose from.

The double bind question is uniquely suited for Erickson's experiential approach to trance phenomena. Thus:

"Tell me whether you begin to experience the numbness more in the right or left leg?"

"Will your right hand lift or press down or move to the side first? Or will it be your left? Let's just wait and see which it will be."

"Will your eyelids grow heavy and close or will they remain comfortable and open in that one position?"

"Do you want hypnosis to remove all the pain or do you want to leave a little bit of the pain as an important signal about the condition of your body?"

"Time can be of varying intensity. Will it be condensed? Expanded?"

"What part of your body will be most heavy? Warm? Light? Etc.?"

## ***THE DOUBLE BIND IN RELATION TO THE CONSCIOUS AND UNCONSCIOUS***

Probably the most fascinating double binds to the depth psychologist are those that somehow deal with the interface between the conscious and unconscious (Erickson, 1964a). Many of these are trance inducing, such as the following:

"If your unconscious wants you to enter trance, your right hand will lift. Otherwise your left will lift."

Whether one gets a yes (right hand) or no (left hand) response to this request, one has in fact begun to induce trance, since any truly autonomous response (lifting either hand) requires that a trance state exist. This is a particularly curious situation because in this case the double bind request at the primary conscious level appears to effect a change at the unconscious or metalevel. It is precisely because of this possibility that humans fall prey to paradoxes. Paradoxes, of course, raise problems, but they can also be used to facilitate the first stages of the therapy process where it is sometimes necessary to break up patients' old and inadequate frames of reference (their metalevels) to facilitate the possibility of creating new and more adequate frameworks (Erickson, 1954; Rossi, 1972, 1973; Watzlawick, Weakland, & Fisch, 1974).

Double binds can also be used to facilitate a creative interaction between the conscious and unconscious. When a patient is blocked or limited on the conscious level, the therapist can simply point out that the limitation is on the conscious level only and proceed to facilitate the unconscious somewhat as follows:

Now it really doesn't matter what your conscious mind does because it is your unconscious that will find new possibilities that your conscious mind is unaware of or may have forgotten. Now you don't know what these new possibilities are, do you? Yet your unconscious can work on them all by itself. And how will they be communicated to your conscious mind? Will they come in a dream or a quiet moment of reflection? Will you recognize them easily at a conscious level or will you be surprised? Will you be eating, shopping, or driving a car when they come? You don't know but you will be happy to receive them when they do come.

In this series of double binds consciousness is depotentiated by *not knowing* and the unconscious is facilitated by a number of truisms about the autonomy of the unconscious and the many possible ways it has of communicating with consciousness. The person is in a double bind with a positive metalevel of hopeful expectation for constructive work. But because his conscious mind cannot deal directly with the unconscious, the limitations of the conscious level are held in check until the unconscious can marshal a solution through some original problem solving.

Weitzenhoffer (1960) has convincingly presented the view that the term "unconscious" in contexts such as we have used here is not the same as Freud's "unconscious." Our use of the term "unconscious" is similar to its usage with finger signaling and the Chevreul pendulum (Cheek & LeCron, 1968) where Prince's (1929) definition of *subconscious or co-conscious* as any process "of which the personality is unaware" but "which is a factor in the determination of conscious and bodily phenomena" is more appropriate. To adequately conceptualize the double bind and hypnotic phenomena in general, it may well be that in the future the term "metalevel" could usefully replace labels like "unconscious, subconscious, or co-conscious," since metalevels can be more precisely defined and thus enable us to apply the tools of symbolic logic, mathematics, and systems theory to human problems.

### **THE TIME DOUBLE BIND**

Erickson will frequently use time as a double bind to facilitate a psychotherapeutic process. Typical examples are as follows:

"Do you want to get over that habit this week or next? That may seem too soon. Perhaps you'd like a longer period of time like three or four weeks."

"Before today's interview is over your unconscious will find a safe and constructive way of communicating something important to your conscious mind. And you really don't know how or when you will tell it. Now or later."

In explaining the use of such therapeutic double binds, Erickson feels they are approaches that enable the patient to cooperate with the therapist. The patient experiences great uncertainty, fright, and inner agony in not knowing how to give up a symptom or reveal

traumatic material. The therapeutic double bind gives the power of decision to the patient's unconscious and provides the conscious mind with an opportunity to cooperate.

### **THE REVERSE SET DOUBLE BIND**

Erickson gave a number of examples of the reverse-set double bind: (a) Reversing the calf's direction by pulling its tail, (b) enabling patients to reveal material by enjoining them not to, (c) utilizing Lal's reverse set to make him drink milk. We will analyze the example of Lal to illustrate how the Theory of Logical Types could handle the reverse-set double bind.

1. The father immediately recognizes Lal's defiance from his behavior and verbal challenge about not eating dinner.
2. Recognizing that it is a matter of principle, the father's first move is to shift the battleground from a whole dinner to a mere glass of milk.
3. Father then defines the rules of the game so that the defiance is verbally crystallized into a reverse set: Lal "did not have to do a single thing his father told him to do about the milk." The father recognizes the reverse set, but the son does not. The son believes the contest is about drinking milk; he is on the primary or object level in that belief. The son does not recognize the reverse set that is operating within him on a metalevel.
4. The father then gives the son a chance to exercise the reverse set so that its operation becomes firmly established within him. The father is now giving commands to the son on the primary level while also locking the son firmly into his reverse set on the metalevel.
5. The father sets up a tally sheet to demonstrate clearly to the son "*that there were some things he would make Lal do a number of times.*" Lal begins to feel "hopelessness" with this repeated demonstration—he knows that he is losing in some way, but he does not know why or how since the reverse set is operating on a metalevel that is unconscious.
6. The father finally gives the critical command "Don't drink your milk," which completes the double bind. Lal raises the glass to drink, but the father steps in to save Lal's self-esteem just in the nick of time by telling him "to drink" so he does not have to.
7. Lal finally does drink the milk, but only when the name of the game is changed to *we drink milk together*. Lal's original defiance is transformed; the conflict between father and son is finally resolved as a joint behavior of drinking milk together.

### **THE NON SEQUITUR DOUBLE BIND**

Illogic continues to have a field day with Erickson's casual insertions of all sorts of *non sequiturs and reductio ad absurdum* in the form of double binds. As was illustrated in Erickson's "going to bed" examples with children, he will often give a series of double binds when one does not suffice. Frequently, the more he gives the more absurd they

become, except that consciousness does not recognize their absurdity and is eventually structured by them. In the *non sequitur* double bind there is a similarity in the *content* of the alternatives offered even though there is *no logical* connection. Thus Erickson says, “Do you wish to take a bath before going to bed, or would you rather put your pajamas on in the *bathroom*?” One could get vertigo trying to figure out the sense or illogic of such a proposition. One cannot figure it out, one cannot refute it, so one tends to go along with it.

## **THE SCHIZOGENIC DOUBLE BIND**

The relation between Erickson’s use of the double bind and the studies of it by Bateson et al. (1956) in the genesis of schizophrenia offers an interesting study of similarities and contrasts. (See Table 1)

It may be noted in summary that the schizogenic double bind carries *negative injunctions that are enforced* at the metalevel or abstract level that is outside the victim’s control on the primary level. Erickson’s therapeutic double binds, by contrast, always emphasize *positive agreement on the metalevel and offer alternatives that can be refused on the primary level*. Erickson has stated that “While I put the patients into a double bind, they also sense, unconsciously, that I will never, never hold them to it. They know I will yield anytime. I will then put them in another double bind in some other situation to see if they can put it to constructive use because it meets their needs mom adequately.” For Erickson, then, the double bind is a useful device that offers a patient possibilities for constructive change. If one double bind does not fit, he will try another and another until he finds a key that fits.

**Table 1**

### **The Bateson Schizogenic Double Bind**

#### *1. Two or More Persons*

The child “victim” is usually ensnared by mother or a combination of parents and siblings.

#### *2. Repeated Experience*

Double bind is a repeated occurrence rather than one simple traumatic event.

#### *3. A Primary Negative Injunction*

“Do not do so-and-so or I will punish you.”

#### *4. A Secondary Injunction*

Conflicting With the First at a More Abstract (Meta) Level, and Like the First Enforced by Punishments or Signals Which Threaten Survival.

### **The Erickson Therapeutic Double Bind**

#### *1. Two or More Persons*

Usually patient and therapist are ensconced in a positive relationship.

#### *2. A Single or Series of Experiences*

If one is not enough, a series of double binds will be offered until one works.

#### *3. A Primary Positive Injunction*

“I agree that you should continue doing such and such.”

#### *4. A Secondary Positive Suggestion at the Metalevel That Facilitates a Creative Interaction Between the Primary (Conscious) and Metalevel (Unconscious).*

Responses at both levels are permitted to

**5. A Tertiary Negative Injunction**  
Prohibiting the Victim from Escaping the Field.

6. Finally, the complete set of ingredients is no longer necessary when the victim has learned to perceive his universe in double bind patterns.

resolve stalemates conflicts.  
**5. A Tertiary Positive Understanding**  
(Rapport, Transference) That Binds the Patient to His Therapeutic Task but Leaves Him Free to Leave if He Chooses.

6. The patient leaves therapy when his behavior change frees him from transference and the evoked double binds.

### **ETHICS AND LIMITATIONS IN THE USE OF THE DOUBLE BIND**

As Erickson indicated in his early exploration of the double bind, there are significant limitations in its use. When the double bind is used in a therapeutic milieu, there is a positive feeling associated with the therapeutic metalevel which determines that some choice will be made. Because of this basically positive context or metalevel patients will accept one alternative even if they do not care for any. They will accept bitter medicine, if it is good for them.

When a free choice among comparable alternatives is offered without a positive metalevel structuring the situation, the subjects are free to refuse all choices. If we walk up to a stranger and ask "Will you give me a dime or a dollar?" we will obviously be turned down more often than not because there is no metalevel binding the stranger to accept one of the offered alternatives. If the stranger happens to be charitable, however, this characteristic of charitableness may function as a positive metalevel that will determine that we get at least a dime.

When the relationship or metalevel is *competitive or negative*, however, we can always expect a rejection of all the double bind alternatives offered on the primary level. The competitive situation of a debate yields negative results, as Erickson found, unless the alternatives favor the other side. In the utterly negative situation of war or harm, "Do you want a punch in the nose or a kick in the teeth?" we can expect universal rejection of the alternatives. The therapeutic usefulness of the double bind, then, is limited to situations that are structured by a positive metalevel. The structuring presence of a positive metalevel together with free choice on the primary level also defines the ethical use of the double bind.

### **RESEARCH ON THE DOUBLE BIND**

Since the successful use of the double bind on the clinical level is so highly dependent on the rapport and recognition of the patient's unique individuality, we can anticipate difficulty in securing positive results in experimental work where standard approaches may be used with large groups of subjects with little or no knowledge of their individual differences. Statistics on the amount of success of a single double bind in the standardized laboratory situation would therefore have little applicability to the clinical

situation. A standardized testing situation that employs a *series of double binds* all directed to facilitate one or a few closely related behaviors would have a better chance of producing a significant experimental effect than a single double bind, however. A second major difficulty in such research is in the difficulty of defining and recognizing just what is a double bind for a particular individual. Bateson (1974) has commented that “a good deal of rather silly research [has been done] by people who think they can count the number of double binds in a conversation. This cannot be done for the same reason that you cannot count the number of jokes.”

To be able to count the number of double binds or possible jokes in a conversation, one would theoretically have to have access to a person’s entire associative structure. Even with computers this is not practical. It may, however, be possible to write computer programs for double binds that could operate on the finite associative structure built into the computer program. On another level we anticipate that much fascinating research could be done investigating parameters influencing the simple reverse-set type of double bind illustrated in the case of Lal. In addition to Bateson’s (1972) relating of the double bind to deuterolearning, experimental work with animals and humans on reversal and non-reversal shifts (Kandler & Kandler, 1962) suggests other research paradigms relating the double bind to fundamental problems of learning. The fundamental nature of the double bind in structuring all forms of human behavior indicates that such research should have a high priority.

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# **Two-Level Communication and the Microdynamics of Trance and Suggestion**

Milton H. Erickson and Ernest L. Rossi

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A professional woman, Dr. Erickson, and a number of other psychiatrists and psychologists are discussing the nature of hypnosis, the double bind, suggestions on two levels, etc. She mentions that she has never personally succeeded in performing automatic writing. Erickson undertakes to help her with the dialogue and hypnotic induction listed on the left side of the following pages. On the right side of each page Erickson and Rossi comment on the varieties of indirect suggestion and two-level communication that are taking place.

## **Shifting Frames of Reference: Displacing Doubt, Resistance, and Failure**

### Induction

*Subject:* Now I have been trying for two years to automatically write something, and I can't get it. How do I go about getting it?

*Erickson:* Do you want to get it?

*S:* Yes! I wouldn't have been trying this long if I didn't want to.

### Commentary

*Erickson:* She is telling me, "I have been trying for two years." Her emphasis is entirely on "trying."

*E:* I'm shifting her focus of attention with this question. I put the emphasis on "Do you want?" It is an unrecognizable shift from her concern with failure to the question of her motivation.

*Rossi:* You emphasize wanting rather than trying and failing. You are immediately shifting her out of her negative, failure frame of reference and reorienting her to her positive motivation.

*E:* Yes and she does not even realize it.

*R:* Now in this sentence she immediately responds with your differentiation: she is speaking of "trying" and "want to" as different things.

## Shock and Surprise to Break Old Frames of Reference

### Induction

E: Ever try writing with your left hand?

S: I don't think I have.

E: Ever try writing backward with your left hand?

S: I don't think I could.

E: You probably couldn't do that.  
(Pause)

### Commentary

E: She wants to do automatic writing, and she has proved for two years that she cannot do it. By asking her if she has ever tried writing with her left hand and getting a "no" response from her, I imply there is *another* way of writing.

R: You open up another possibility that has not been associated with failure. You are again dislodging her from her failure frame of reference.

E: The geographical shift to her left hand is so unrealistic that her unconscious is going to be alerted.

R: Many associations and search programs are activated by your unrealistic introduction of the left hand. It is a surprise or shock to jog her out of her failure set and thus activate a search on the unconscious level for something new (Rossi, 1972, 1973).

E: Here I'm opening up still another possibility. Whenever you do the unexpected, you jog a person out of their setting.

E: "You probably couldn't do that." That is where her failure is!

R: Oh, see! You first dislodge her from her past failure in automatic writing with her right hand, and then you shift her failure and place it on her probable inability to write backward with her left hand. You reify her failure, you dislodge it from the task at hand and then shift it to something irrelevant. This is a neat paradigm of your general approach to discharging and displacing doubt, resistance, or failure. You treat the resistance as a concrete thing that the patient must first express to get it out of her system. You then relocate the failure and resistance to a place where it will not interfere with constructive work on the problem at hand.

## Distraction in the Dynamics of Two-Level Communication

Induction	Commentary
<i>Are you willing (Pause) to find that out? (Spoken softly with voice dropping.)</i>	<p><i>E:</i> Again this involves a shift from trying to the question of conscious motivation: <i>Are you willing</i> is to the conscious level; <b>find that out</b> is to the unconscious level because I've attracted conscious attention with the <i>are you willing?</i> By adding <b>find that out</b> I'm also implying there is something to find out. (Communications to the conscious level are in italics, while communications to the unconscious are in bold print.)</p>
<i>S:</i> Yes.	<p><i>R:</i> A pause and voice dynamics separate the two levels. In the critical sentence, “<i>Are you willing to find that out,</i>” your voice emphasis on “<i>willing</i>” catches the conscious mind. But the more softly spoken, “<b>to find that out</b> . . .”</p>
<i>E:</i> Really?!	<p><i>E:</i> . . . Catches the unconscious,</p>
	<p><i>R:</i> Why? Because all her conscious attention went to the emphasis on “<i>willing</i>?”</p>
	<p><i>E:</i> Yes. She had two years of failure, yet I'm questioning her willingness. The willingness to fail for two years and the willingness to write are two different things. I'm differentiating between them.</p>
	<p><i>R:</i> You recognize that for two years she has been stalemated between (a) her willingness to do automatic writing and (b) her willingness to fail at it (Erickson, 1965). By questioning her willingness to do automatic writing you are actually challenging and thus fixating the attention of her conscious mind. Since her conscious mind is fixated on the first half of the sentence (<i>Are you willing</i>), it is distracted from the second half (<b>find that out</b>). This is the essential dynamic of communication on two levels: you activate, attract, and fixate attention with one item, and then add another item that will be received but not noticed. This is actually related to the classical notion of hypnosis as the fixation and distraction of attention.</p>
<i>S:</i> Writing backward with my left hand?	<p><i>E:</i> Her question is on the conscious level, so the first part of my response “<i>No</i>” is on the conscious level, but the last part “<b>to find out</b>” is actually contradictory and does not make much sense in that context. Therefore it goes to the unconscious as a</p>

### Induction

E: **No, to find out.** (Pause) To  
**find out** (very softly).

S: *I think I am willing.*

E: Do you think *you are willing*  
**to find out?** (softly)

S: *How do I do this? How do I set*  
*it up?*

E: You don't set it up. You don't  
need to.

**Just find out** (Pause)

### Commentary

suggestion implying, **find out with your right hand.**

R: Here again she responds on the conscious level with this statement about *willing*, but you return by repeating your question on two levels.

R: She again emphasizes her conscious orientation with her very rational questions about how she is to set up the automatic handwriting. Your response that she does not need to set it up is a direct effort to depotentiate that rational orientation.

E: I break up her conscious set. Her questions are on the conscious level, but the answers require that she make a search on the unconscious level.

## Trance Induction by Two-Level Communication

### Induction

**Just find out.**

Do you mind if takes your  
cigarette?

### Commentary

R: You again emphasize the unconscious level with your softly spoken phrase "**Just find out.**"

E: She does not realize I'm telling her to go into a trance. She thinks I said, "**Just find out.**" But I have said, "**Just find out**" to her unconscious mind, and having spoken to her unconscious mind, her unconscious mind has to come forth.

R: That coming forth of the unconscious defines the trance situation. You frequently induce trance by asking a question or assigning a task that cannot be dealt with by the patient's momentary conscious frame of reference. This momentarily depotentiates conscious sets, and the patient retreats to an unconscious level in search for an adequate response.

R: This question about J taking her cigarette is the first direct indication that you are structuring a trance situation.

### Induction

#### **Just find out.**

(S's eyelids begin to blink slowly.)

That's it, **close your eyes.** (Pause)

And just close your eyes and sleep more and more deeply. (Pause)

### Commentary

*E:* All the foregoing was a trance induction by the two levels of speaking.

*R:* She was speaking on the conscious level, but her unconscious was picking up your suggestions on another level. To accommodate your suggestions on the unconscious level . . .

*E:* It [her unconscious] had to wipe out the conscious.

*E:* "That's it" tells her conscious mind that her unconscious is doing something.

*R:* You repeated your suggestion "**to find out**" to the unconscious so often that it finally depotentiated consciousness so she could easily enter trance.

*E:* I noticed the slowing of her eyelid blinking as I said that. I had to get rid of her cigarette because you can't go into trance smoking a cigarette, since it is a conscious act. I removed the last vestige of her need for conscious thinking.

## "Wonder" as a Two-Level Suggestion

### Induction

And now what I'd like to have you do is to **wonder** about that writing.

### Commentary

*R:* You emphasize **wonder** to introduce an exploratory set?

*E:* When a person **wonders**, it implies that they don't know.

*R:* "Wonder" depotentiates conscious sets on one level while stimulating exploratory efforts on the unconscious level. It is a two-level suggestion all by itself. Many other words like "try, explore, imagine, feel, sense" tend to evoke two-level communication. When confronted with such words, people tend to get that faraway look in their eyes that is characteristic of the common everyday trance (Erickson & Rossi, 1975). These words orient a person within themselves in a manner conducive to trance.

## Dynamics of Dissociation and Need for Closure in Evoking Automatic Writing

### Induction

I'd like to have you get the **feeling** that you have **written** it.

But just the **feeling** that you have **written** it, just the **feeling**.  
And get that **feeling** in your **left hand**. (Pause)  
And get the **feeling** in your **left hand**. (Pause)

And now in a different way I'd like to have you get the *knowledge* of how to *write* in your *right hand*.

The *knowledge* of how to *write* in your *right hand*.

### Commentary

E: She has many times in the past had the feeling of writing with her right hand. I isolate that feeling and put it in the left hand, where it does not belong. But everybody likes to put together things that belong together.

R: You set up a tension by evoking the feeling of having written in her left hand. There is going to be a natural tendency to get that feeling in her right hand where it belongs. The only way to get that feeling is to do the automatic writing. You set up an expectancy or need for closure in her right hand that can only be fulfilled by automatic writing.

E: Yes.

R: This suggestion of getting a *knowledge of how to write in her right hand* is a sort of truism that evokes many familiar associations, and as such tends to reinforce the suggestion of getting a **feeling of having written in the left hand**. That in turn strengthens the need for closure by doing the automatic writing, so that feeling of having written can get back to the right hand where it belongs.

These dynamics come into play at an unconscious level, however, so consciousness is further depotentiated and automatism facilitated.

## Cognitive Overloading to Depotentiate Conscious Sets to Facilitate Hypnotic Responsiveness

### Induction

But the **feeling** that you **have written** it in your **left hand**.

And while you are enjoying those two separate sensations, you might be interested in a third realization.

### Commentary

R: There is also a cognitive overload and confusion introduced when you almost simultaneously evoke and carefully partition associations along those different dimensions, as follows:

**Left Hand      Right Hand**

**Feeling      Knowledge**

**Past      Present**

## Induction

## Commentary

*The reader can observe how you have associated left hand, feeling, and past tense in some of your sentences and right hand, knowledge, and present tense in others. Her conscious mind cannot understand the significance of this dissociation, and therefore the controlling and directing function of her ego is depotentiated to the point where automatism tends to set in.*

*E:* Yes, You are overloading the conscious mind, you are getting it off balance. It has to escape from that tension situation. I've been talking to the unconscious, and it is feeling comfortable because, I'm putting all the discomfort into the conscious mind.

A third experiential learning.

*R:* You then overload further with this introduction of a "third experiential learning." [Erickson now five a number of illustrations of how the conscious mind can be overloaded, startled, or mystified in order to fixate attention while the therapist unobtrusively adds other suggestions that automatically drop into the unconscious because consciousness cannot cope with them while so fixated.]

*E:* She didn't say that she wanted to do a **certain** amount. I've overloaded her conscious mind with it. She has to search in her mind, "What makes you think it is a certain **amount**?"

*Just what it is you don't know.*

*But you say you want to and you really do.*

*R:* There are multiple meaning of the word **certain** that come in here: **certain** can mean positive affirmation as well as a limitation of amount. It can also mean a particular item of special interest. There could be a **certain** subject that she wants to deal with via automatic writing

*E:* We don't know which meanings her unconscious will act upon. But we do know that the work **certain** is a highly specific unspecific.

## Voice Dynamics in Two-Level Communication

Induction	Commentary
<i>At least I believe you.</i>	<i>E:</i> I'm telling her she can have her conscious <i>false beliefs</i> about not being able to do automatic writing, but <b>I believe she can</b> . Again I'm speaking to her unconscious.
<i>I don't know if you believe you</i>	<i>R:</i> Your initial phrase, "I don't know if you believe you," acts as a challenge that catches her conscious attention. While she is attending to that, you softly say "but I believe you," which acts as a suggestion that drops into her unconscious, since her consciousness was too occupied to heed it at that precise moment. You frequently use such compound statements wherein you fixate conscious attention with the first half so you can then unobtrusively drop a suggestion into the unconscious in the second half.
<b>But I believe you</b> (softly)	<i>E:</i> Yes, the phrase to the unconscious is spoken softly. I use one tone of voice to speak to the conscious mind and another to speak to the unconscious. When you use one tone of voice that pertains to conscious thinking and another tone of voice that expresses other ideas which you intend for the unconscious, you are establishing a duality.

## The Double Bind

Induction	Commentary
And the only question is, when will you do it?	<i>R:</i> You then immediately follow up with the phrase "the only question is when," which displaces her from the question of success or failure in writing to the mere question of when.
Will you do it expectedly or unexpectedly?	<i>E:</i> That is a double bind.
You are interested in experiments.	<i>R:</i> "Will you do it expectedly or unexpectedly?" is another double bind. It is not a question she can dispute, and therefore it plants the actual suggestion of writing very strongly. Structuring such forms of mutually exclusive response (expectedly or unexpectedly) is actually another form of double bind: on one level her unconscious is free to choose its own form of response; you have, however, structured the alternatives so that on another level (the meta-level) the range of her response possibilities are determined by you.
You in your own mind can set up the experiment.	

## Covering All Possibilities of Response: Multiple Form of Double Bind

### Induction

You can write as Mary does.

A word here, a word there.

A syllable here, a syllable there.

A letter here, a letter there.

A word following a syllable, a letter

You can misspell a word.

You can write the wrong word.

### Commentary

*R:* Here you outline a whole series of suggestions covering all possibilities of response so that unconscious processes can be facilitated. Whatever response she does manifest is acceptable as a correct step toward the ultimate goal of automatic handwriting. Covering all possibilities of response is actually a multiple form of the double bind. Rather than binding, however, it gives free reign to the patient's creative process. You don't know what mechanisms the patient's unconscious can use, so you give it carte blanche to use any available mechanism.

*E:* Yes, these are all just so many interlocking double binds.

## The Double Dissociation Double Bind

### Induction

You can write that material without ever knowing what it is.

Then you can go back and discover you know what it is without knowing that you've written it.

### Commentary

*R:* In this first statement you suggest a dissociation between writing and knowing what she has written. In this second statement you offer the reverse dissociation: she can know what she has written but not know she has written it. Together these two statements effect a double dissociation in the form of a double bind that appears to cover all possibilities of response. It is an extremely powerful form of suggestion that so befuddles consciousness that it must rely on the unconscious to sort out the response possibilities.\*

*E:* This is a very strong instruction to her unconscious that follows the double bind.

*R:* Conscious sets are momentarily depotentiated by the double bind, so whatever follows tends to drop directly into the unconscious.

### ***And as you continue***

\*Another example of the double dissociation double bind that is analyzed in more detail by the authors (Erickson, & Rossi, 1976) goes as follows: "You can as a person awaken but you need not awaken as a body, (pause), or you can awaken when your body awakes but without a recognition of your body."

## Utilizing Disequilibrium to Evoke Hypnotic Phenomena

### Induction

That **feeling of having written** in your **left hand**, it can be most interesting.

And the knowledge that you can write with your right hand

*is also most interesting.*

### Commentary

*R:* You again return to your tripart division of **feeling, past tense, and left hand** versus *knowledge, present tense, and right hand.*

*E:* It evokes a need to pull together the things that belong together: to get the feeling of writing in the right hand. There is only one way to get that feeling in the right hand: doing automatic writing.

*E:* Here I'm getting the *present tense* ("is") into automatic writing. That is a bridging association from the past (**feeling of having written**) to *present*. To do the automatic writing she's got to have that **feeling now.**

*R:* You create a tension by suggesting a feeling in her left hand that really belongs in her right hand. You dissociate a feeling and take it out of its natural context so that a tension is created until it can return to its rightful place by executing the hypnotic phenomenon of automatic writing. This is a general principle for evoking hypnotic phenomena: *The therapist arranges to utilize internal states of tension, dissociation, or disequilibrium that can only be resolved by the execution of some desired hypnotic phenomena.*

*E:* If you observe children, you learn they do this sort of thing all the time.

*R:* Yes, the Zeigarnik (Woodworth & Schlosberg, 1956) effect, for example, illustrates how children will return to an uncompleted task after an interruption because of the tension or disequilibrium aroused by their set for closure.

## Two-Level Communication by Implication

### Induction

And you want something at a two-level suggestion.

Here and now,  
and in the presence of all the others,  
I'm going to say something to you

### Commentary

*R:* Here you talk about giving her a two-level suggestion, but I cannot find it.

Induction	Commentary
in a two-level suggestion. And you can wonder what it is and why. (pause)	<i>E:</i> I'm having her unconscious define what it is to be wondered about and what is worth waiting for.
And you can wait, and you can wonder, (pause)	<i>R:</i> By waiting and wondering her unconscious is going through all its programs in search of something worthwhile?
and you can wait and you can wonder, and you can wait and you can wonder.	<i>E:</i> Her problem was her difficulties with automatic handwriting. I'm really talking about that.
Because what will that suggestion be? And you wait and you can wonder.	<i>R:</i> On the conscious level you are talking about wondering and waiting, but to the unconscious you are implying automatic writing. Is that the two-level suggestion?
(Pause)	<i>E:</i> Yes. I told her I would give her a two-level suggestion. I'm illustrating two levels by two different kinds of behavior: waiting and wondering. A choice between two things is also two; I'm illustrating twoness.
	<i>R:</i> In a very concrete way

## **Association and Two-Level Communications: Childhood Associations and Automatic Writing**

Induction	Commentary
And I taught my sister that two plus two is four.	<i>E:</i> The unconscious works without your knowledge, and that is the way it prefers. I'm evoking the patient's own childhood patterns here by simply talking about childhood.
And four and four is eight.	<i>R:</i> Why?
And she didn't quite believe me when I told her that three and five is eight.	<i>E:</i> Automatic handwriting usually does have a childlike character.
Because she said that I had told her that four and four is eight.	<i>R:</i> So you introduce childhood associations to facilitate a regressive or autonomous process of automatic handwriting.
(Long pause)	<i>E:</i> Yes, and on two levels.
	<i>R:</i> On one level it implies that the conscious mind does not always understand things (like the child's initial puzzlement about arithmetic), and on another

### Induction

### Commentary

level you are also facilitating regression by the simple process of association: talking about childhood reactivates memory traces of response tendencies appropriate to childhood. Since the conscious mind does not understand, it tends to be depotentiated. With consciousness momentarily puzzled and depotentiated, your associations about childhood can now reach her unconscious, where they may also reactivate memory traces and response tendencies appropriate to childhood and autonomous processes like automatic handwriting.

## Dissociation to Facilitate Automatic Writing

### Induction

### Commentary

And writing is one thing and reading is another.

*E:* Knowing what you are writing is an awareness, while automatic writing is an unawareness. I'm dividing up the entire process of automatic writing and giving her permission to do only one of those parts.

And knowing what should be written is a third.

*R:* You are breaking up what seems to be one unitary act of writing, reading, and awareness of what was written into its three component parts, so the possibility of writing without awareness is introduced. Many hypnotic phenomena are simply dissociated forms of normal behavior.

And concealment of the writing from the self is another thing.

*E:* Yes, this is actually an instruction of how to do automatic writing.

(Long pause as S apparently does some automatic writing.)

And keep right on because you are interested.

## Non Sequitur to Facilitate Two-Level Communication

### Induction

### Commentary

And the feeling in your left hand is so important

*R:* The second half of this sentence ("You don't want to know that feeling") seems to be a non sequitur to the conscious mind, but it makes sense to the unconscious?

That you don't want to know that feeling (pause)

*E:* It is an important feeling, but you don't want to know it. The feeling is the essential thing. Knowing about it is not the essential thing.

### Induction

And concealing it from you  
is interesting.

And enjoy that.

### Commentary

R: What seems to be a non sequitur to the conscious mind is actually a way of depotentiating consciousness. You are actually telling the unconscious that the feeling is important, but consciousness is so unimportant that it need not know, recognize, or register that feeling

“Concealing it from you” effects a dissociation that depotentiates consciousness. It permits the unconscious to express itself in privacy and safety from consciousness.

## Implied Directive and Two-Level Communication

### Induction

And as soon as you feel that you are through writing,  
you can rouse up.

(A tear begins to roll down her cheek.)

And are you going to hide that tear?

And are you going to hide that tear?

(Long Pause\_

S: (Awakens and sighs.)

### Commentary

R: This is an implied directive wherein you suggest an overt piece of behavior (awakening in this case) to signal when an indirectly formulated suggestion, the implied directive (“as soon as you feel you are through writing”), has taken place on the unconscious level. Many forms of ideomotor response (e.g., finger, hand, or head signaling) can be used as signals to let the therapist know when a question has been answered (Cheek & LeCron, 1968) or a suggestion implemented on an unconscious level. The signaling response is actually a form of biofeedback without the use of electronic instrumentation. We can hypothesize that the implied directive and biofeedback are similar in that both function on an unconscious level (the subject does not know how he does it) and both use a signal to indicate when the desired response takes place. It would be fascinating to test whether ideomotor responses could be calibrated to give immediate knowledge of results and therefore reinforcement to any degree of the desired response, just as electronic instrumentation does for biofeedback. The implied directive and biofeedback are both forms of two-level communication whereby a signal expressed on the conscious level is an index of activity on an unconscious level.

A general conversation about other matters now takes place for about five minutes. Erickson then casually shows S the sheet on which she had been writing and continues as follows:

## **Protection of the Unconscious and Initial Stages of Hypnotic Learning**

### **Induction**

E: Now you recognize, of course, that this is automatic writing, don't you? And you recognize it is not written for me or for anybody else to read.

(Pause)

Would you recognize that handwriting?

You recognize it is not for anybody else to read, and it is not for you to read at the present time.

So close your eyes.

And when you want to read it, when you want to put it together in proper fashion,

I'd like to have you do it before I leave Philadelphia.

And so

let's postpone the task for a while.

Let's postpone the task for a while. (Pause)

And now rouse up.

Hi!

S: Hi!

### **Commentary**

R: Apparently the writing was illegible, as the first efforts of automatic writing frequently are. You emphasize that it is automatic writing to forestall criticism from the conscious attitude that it is not comprehensible and therefore worthless. This is an example of how the therapist must frequently protect the initial stages of learning a new hypnotic phenomena because the conscious mind, particularly in our rationalistic age, tends to downgrade and thus destroy accomplishments of the unconscious.

E: [Erickson tells an interesting story of how useful automatic writing can be to help a person learn something they know without knowing they know it. A woman wrote something in automatic handwriting, but then on suggestion she carefully folded it up without reading it and placed it absentmindedly in her pocketbook. A few months later, after making an important change in her marriage plans, she "accidentally" rediscovered the folded paper. She found her unconscious had worked on and had written about her change in plans automatically months earlier. It is thus a facilitative procedure to allow the unconscious to protect itself by taking cautionary measures that permit the automatic writing to remain hidden from the conscious until it is appropriate for the consciousness to know. Ideomotor signaling can be used to determine if the unconscious is ready to allow the conscious to learn what was written.]

E: You can make the unconscious known without making it known. You make it known by automatic writing. You make it unknown by folding the paper and putting it away till consciousness is ready for it.

The group breaks up and goes to dinner with no further discussion. It is important during the initial stages of learning to experience trance that the therapist prevent the rationally oriented individual from building associative bridges between the nascent and autonomous aspects of trance phenomena and their usual everyday awareness. Talking about trance immediately after experiencing it builds associative connections between trance and everyday awareness that destroys the dissociation between them. Talking amalgamates the nascent and autonomous qualities of trance phenomena into the individual's usual, "normal" state of awareness to the point where many researchers (Barber, Spanos, and Chaves, 1974) have come to believe that trance, as an altered state of consciousness, does not exist (Erickson and Rossi, 1974).

## **A CONTEXT THEORY OF TWO-LEVEL COMMUNICATION**

In the commentary we analyzed the dynamics of two-level communication in terms of the classical notion of hypnosis as the fixation and distraction of attention. In what follows we propose a more comprehensive analysis that encompasses a broader range of phenomena ranging from the conceptions of the recent contextual theory of verbal associations (Jenkins, 1974) and literalism to the use of shock, surprise, analogy, and metaphor, which are so common in Erickson's approach.

The question, "*Are you willing (pause) to find that out?*" has as a general context a query about motivation (Are you willing?) which fixates or structures the subject's conscious frame of reference or sense of meaning. The individual words and phrases used to articulate that general context, however, have their own individual and literal associations that do not belong to that general context. These individual and literal associations are of course usually suppressed and excluded by consciousness in its effort to grasp the general context. These suppressed associations do remain in the unconscious, however, and under the special circumstances of trance, where dissociation and literalness are heightened, they can play a significant role in facilitating responsive behavior that is surprising to consciousness.

This situation can be made clear by analogy. The adult reader is usually searching for an author's meaning. Within certain limits it really doesn't matter what particular sentences or words are used. Many different sentences and combinations of words could be used to express the same meaning. It is the meaning or the general context of the sentences that registered in consciousness, while the particular sentences and words used fall into the unconscious where they are "forgotten." In the same way one "reads" the meaning of a whole word rather than the individual letters used to make up the word. The general context of the letters registers as the conscious meaning of a word rather than the individual associations of each letter. Jenkins (1974) has summarized the data of recent experimental work in the area of verbal association, event recognition, information integration, and memory that places a similar emphasis on the significance of context to understand these phenomena. In any discourse or phenomena using words it is usually the general context that establishes meaning rather than the structural units that create the discourse.

The obvious exceptions to this of course are in puns, allusions, and all sorts of verbal jokes, where the punch line depends upon literal or individual verbal associations to words and phrases that originally escaped the attention of consciousness. Verbal jokes depend upon literal or individual associations that are usually suppressed.

In the same way Erickson's two-level communication utilizes a general context to fixate the attention of consciousness while the individual associations of words, phrases, or sentences within that context are registered in the unconscious, where they can work their effects. From this point of view Erickson's Interspersal Technique (1966) is the clearest example of two-level communication wherein subject matter of interest to a particular patient is utilized as a general context to fixate conscious attention, while interspersed suggestions are received for their effects on an unconscious level.

Erickson has devised a number of other techniques to activate the individual literal and unconscious associations to words, phrases, or sentences buried within a more general context. Turns of phrase that are shocking, surprising, mystifying, non sequitur, too difficult or incomprehensible for the general conscious context, for example, all tend to momentarily depotentiate the patient's conscious sets and activate a search on the unconscious level that will turn up the literal and individual associations that were previously suppressed. When Erickson overloads the general context with many words, phrases, or sentences that have common individual associations, those associations (the interspersed suggestion) gain ascendancy in the unconscious until they finally spill over into responsive behavior that the conscious mind now registers with a sense of surprise. The conscious mind is surprised because it is presented with a response within itself that it cannot account for. The response is then described as having occurred "all by itself" without the intervention of the subject's ego or conscious motivation; the response appears to be autonomous or "hypnotic."

Analogy and metaphor as well as jokes can be understood as exerting their powerful effects through the same mechanism of activating unconscious association patterns and response tendencies that suddenly summate to present consciousness with an apparently "new" datum or behavioral response.

## **THE MICRODYNAMICS OF SUGGESTION**

Once Erickson has fixated and focused a patient's attention with a question or general context of interest (e.g., ideally the possibility of dealing with the patient's problem), he then introduces a number of approaches designed to "depotentiate conscious sets." By depotentiating conscious sets we do not mean there is a loss of awareness in the sense of going to sleep; we are not confusing trance with the condition of sleep. Trance is a condition wherein there is a reduction of the patient's foci of attention to a few inner realities; consciousness has been fixated and focused to a relatively narrow frame of attention rather than being diffused over a broad area as in the more typical general reality orientation (Shor, 1959) of our usual everyday awareness. When fixated and focused in such a narrow frame, consciousness is in a state of unstable equilibrium; it can be "depotentiated" by being shifted, transformed, or bypassed with relative ease.

Erickson believes that the purpose of clinical induction is to focus attention inward and alter some of the ego's habitual patterns of functioning. Because of the limitations of a patient's habitual frames of reference, his usual everyday consciousness cannot cope with certain inner and/or outer realities, and the patient recognizes he has a "problem."

Depotentiating a patient's usual everyday conscious sets is thus a way of depotentiating facets of his personal limitations; it is a way of deautomatizing (Deikman, 1972) an individual's habitual modes of functioning so that dissociation and many of its attendant classical hypnotic phenomena (e.g., age regression, amnesia, sensory-perceptual distortions, catalepsies, etc.) are frequently manifest in an entirely spontaneous manner (Erickson & Rossi, 1975). Depotentiating the limitations of the individual's usual patterns of awareness thus opens up the possibility that new combinations of associations and mental skills may be evolved for creative problem solving within that individual.

Erickson's approaches to depotentiating consciousness are so subtle and pervasive in the manner with which they are interwoven with the actual process of induction and suggestion that they are usually unrecognized even when studying a written transcript of his words. In order to place them in perspective we outlined the microdynamics of induction and suggestion in Table 1 as (a) fixation of attention, (b) depotentiating conscious sets, (c) unconscious search, (d) unconscious processes, and (e) hypnotic response. We have also listed a number of Erickson's approaches to facilitating each stage. Most of these approaches are illustrated in this paper and discussed in more detail elsewhere (Erickson and Rossi, 1974; Erickson and Rossi, 1975; Erickson, Rossi, and Rossi, 1976; Haley, 1967; Rossi, 1973). Although we may outline these processes as stages of a sequence in Table 1 for the purpose of analysis, they usually function as one simultaneous process. When we succeed in fixating attention, we automatically narrow the focus of attention to the point where one's usual frames of reference are vulnerable to being depotentiated. At such moments there is an automatic search on the unconscious level for new associations that can restructure a more stable frame of reference via the summation of unconscious processes. There is thus a certain arbitrariness to the order and the headings under which we assign some of the approaches Erickson used in this paper. He could equally well begin with an interesting story or pun as with a shock, surprise, or a formal induction of trance. Once the conditions in the first three columns have been set in motion by the therapist, however, the patient's own individual unconscious dynamics automatically carries out the processes of the last two columns.

A number of Erickson's most interesting approaches to facilitating hypnotic response are listed in Column 3 of Table 1. All these approaches are designed to evoke a search on the unconscious level. Allusions, puns, metaphors, implications, etc., are usually not grasped immediately by consciousness. There is a momentary delay before one "gets" a joke, and in part that is what is funny about it. In that delay period there obviously is a search and processes on an unconscious level (Column 4) that finally summate to present a new datum to consciousness so it gets the joke. All the approaches listed in Column 3 are communication devices that initiate a search for new combinations of associations and mental processes that can present consciousness with useful results in everyday life as well as in hypnosis. The approaches listed in Column 3 are also the essence of Erickson's indirect approach to suggestion (Erickson, Rossi and Rossi, 1976). The study of these

approaches may be regarded as a contribution to the newly defined science of pragmatics: the relation between signs and the users of signs (Watzlawick, Beavin, and Jackson, 1967). Erickson relies upon the skillful utilization of such forms of communication to evoke hypnotic behavior rather than hypersuggestibility *per se*.

It is important to recognize that while Erickson does think of trance as a special state (of reduced foci of attention), he does not believe hypersuggestibility is a necessary characteristic of trance (Erickson, 1932). That is, just because a patient is experiencing trance, it does not mean that patient is going to accept and act upon the therapist's direct suggestions. This is a major misconception that accounts for many of the failures of hypnotherapy; it has frustrated and discouraged many clinical workers in the past and has impeded the scientific exploration of hypnosis in the laboratory. Trance is a special state that intensifies the therapeutic relationship and focuses the patients' attention on a few inner realities; *trance does not insure the acceptance of suggestions*. Erickson depends upon certain communication devices such as those listed in Column 3 to evoke, mobilize, and move a patient's associative processes and mental skills in certain directions to sometimes achieve certain therapeutic goals. He believes that hypnotic suggestion is actually this process of evoking and utilizing a patient's own mental processes in ways that are outside his usual range of ego control. This *utilization theory of hypnotic suggestion* can be validated, if it is found that other therapists and researchers can also effect more reliable results by carefully utilizing whatever associations and mental skills a particular patient already has that can be mobilized, extended, displaced, or transformed to achieve specific "hypnotic" phenomena and therapeutic goals.

In the formal trance situation the successful utilization of unconscious processes leads to an autonomous response; the ego is surprised to find itself confronted with a new datum or behavior (Column 5). The same situation is in evidence in everyday life, however, whenever attention is fixated with a question or an experience of the amazing, the unusual, or anything that holds a person's interest. At such moments people experience the common everyday trance; they tend to gaze off—to the right or left, depending upon which cerebral hemisphere is most dominant (Baleen, 1969)—and get that "faraway" or "blank" look. Their eyes may actually close, their bodies tend to become immobile (a form of catalepsy), certain reflexes (e.g., swallowing, respiration, etc.) may be suppressed, and they seem momentarily oblivious to their surroundings until they have completed their inner search on the unconscious level for the new idea, response, or frames of reference that will restabilize their general reality orientation. We hypothesize that in everyday life consciousness is in a continual state of flux between the general reality orientation and the momentary microdynamics of trance as outlined in Table 1. The well-trained hypnotherapist is one who is acutely aware of these dynamics and their behavioral manifestations. Trance experience and hypnotherapy are simply the extension and utilization of these normal psychodynamic processes. Altered states of consciousness, wherein attention is fixated and the resulting narrow frame of reference shattered, shifted, and/or transformed with the help of drugs, sensory deprivation, meditation, biofeedback, or whatever, follow essentially the same pattern but with varying emphasis on the different stages. We may thus understand Table 1 as a general

paradigm for understanding the genesis and microdynamics of altered states and their effects upon behavior.

**TABLE 1**  
**The Microdynamics of Trance Induction and Suggestion**

(1) <i>Fixation of Attention</i>	(2) <i>Depotentiating Conscious Sets</i>	(3) <i>Unconscious Search</i>	(4) <i>Unconscious Processes</i>	(5) <i>Hypnotic Response</i>
1. Stories that motivate interest, fascination, etc.	1. Shock, surprise, the unrealistic and unusual 2. Shifting frames of reference; displacing doubt resistance and failure	Indirect Forms of Suggestion Allusions, puns, jokes 1. Metaphor, analogy, folk language 2. Implication 3. Implied directive 4. Double binds	1. Summation of: A. Interspersed suggestions B. Literal associations C. Individual association D. Multiple meaning of words	“New” datum or behavioral response experience as hypnotic or happening all by itself.
2. Standard eye fixation	3. Distraction 4. Dissociation and disequilibrium	5. Words initiating exploratory sets 6. Questions and tasks requiring conscious search	2. Autonomous, sensory, and perceptual processes	
3. Pantomime approaches	5. Cognitive overloading 6. Confusion, non sequiturs 7. Paradox 8. Conditioning via voice dynamics, etc.	7. Pause with therapist attitude of expectancy 8. Open-ended suggestions 9. Structured amnesias 10. Etc.	3. Freudian primary processes 4. Personality mechanisms of defense 5. Ziegarnik effect 6. Etc.	
4. Imagination and visualization approaches	9. Compound statements 10. Etc.	11. Etc.		
5. Hand levitation				
6. Relaxation and all forms of inner sensory, perceptual, or emotional experience				
7. Etc.				

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# **Indirect Forms of Suggestion**

Milton H. Erickson and Ernest L. Rossi

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The problem of what constitutes hypnotic suggestion has been a subject of research for more than a century (Tinterow, 1970; Weitzenhoffer, 1953, 1963). Recently Weitzenhoffer (1974) presented experimental data regarding the difficulty that is still prevalent in distinguishing between instructions and hypnotic suggestions. The recognition of when hypnotic suggestions are operative is a fundamental issue in experimental research, where it is important to distinguish between treatments of hypnotic and of control groups. The nature of hypnotic suggestion is also fundamental in clinical hypnosis and psychotherapy, in general, where practitioners are concerned with the most effective means of facilitating therapeutic processes.

Traditionally, whether one speaks of waking or hypnotic suggestion, one usually means either *direct suggestion*, where the operator makes a clear, direct request for a certain response, or some form of *indirect suggestion*, where the relation between the operator's suggestion and the subject's response is less definite or obvious. The importance of the operator's prestige and authority and the principles of repetition, homoaaction, and heteroaction along with the evocation of ideo sensory and ideomotor processes (Weitzenhoffer, 1957) that are frequently mediated by goal-directed fantasy (Barber, Spanos and Chaves, 1974) are usually recognized as the basis of direct suggestion. Even the earliest investigators realized that the dynamics of indirect suggestion were more complex, however. Indirect suggestion was recognized as being a function of the subject's individuality and, perhaps because of this, was frequently more effective than direct suggestion. In this paper we will first review some of the ways indirect suggestion has been understood by these investigators. We will then outline our own approach and describe many of the indirect forms of suggestion we have found effective in clinical hypnotherapy.

## ***EARLIER VIEWS OF INDIRECT SUGGESTION***

One of the earliest investigators to recognize the unique contribution of the subject's individuality in understanding the essential dynamics of indirect suggestion was Albert Moll in his text on hypnotism (1890). He describes and illustrates his views as follows:

The subject in this way completes most suggestions by a process resembling the *indirect suggestion* . . . . *The external suggestion* [from the operator] does not remain an isolated phenomenon, but causes a series of other mental processes,

according to the character of the subject and to the hypnotic training he has received. I say to the subject, "Here, take this bottle of Eau de Cologne!" He believes that he feels the bottle in his hand, which in reality is empty; besides which he believes he sees the bottle and smells it, although I add nothing to my original suggestion. In short, he completes it independently. This is a very common occurrence.

In this illustration Moll recognizes that the subject completes the operator's bare suggestion of the presence of a bottle of Eau de Cologne by adding and apparently appreciating the visual and olfactory components of it. Simple and obvious as it may be, this example clearly illustrates a basic and most significant characteristic of indirect suggestion: The subject's own unique repertory of associations and behavioral potentials makes an important contribution to the hypnotic response.

A more revealing description of the role of nonverbal indirect suggestion is given by Sidis (1898) as follows:

Instead of openly telling the subject what he should do, the experimenter produces some object, or makes a movement, a gesture, which in their own silent fashion tell the subject what to do. To illustrate it by a few examples, so as to make my meaning clearer: I stretch out the hand of the hypnotic subject and make it rigid, and while doing this I press his arm with an iron rod. In the next seance as soon as the iron rod touches the arm the hand becomes rigid. I tell the subject to spell the word 'Napoleon,' and when he comes to 'p' I stretch out my hand and make it stiff. The subject begins to stammer; the muscles of his lips spasmodically contract and stiffen . . . Such a kind of suggestion may be properly designated as *indirect suggestion*.

The principles of *association* and *generalization* implied in this illustration, where an iron rod or the operator's stiffened arm is enough to make the subject's facial muscles stiffen, are also highly characteristic of the process of indirect suggestion. In the following exposition Sidis illustrates how the principles of *contiguity*, *similarity*, and *contrast* are additional means by which the subject's own unique psychodynamics make a contribution to the hypnotic response:

In short, when there is full and complete realization of the idea or order suggested, directly or indirectly, we have that kind of suggestion which I designate as *immediate*.

Instead, however, of immediately taking the hint and fully carrying it into execution, the subject may realize something else, either what is closely allied with the idea suggested or what is connected with it by association of contiguity. A suggestion given to the subject that when he wakes up he will see a tiger is an example. He is awakened, and sees a big cat. The subject is suggested that on awakening he will steal the pocketbook lying on the table. When aroused from the hypnotic state, he goes up to the table, does not take the pocketbook, but the

pencil that lies close to it. The buyer does not always choose the precise thing which the salesman suggests, but some other thing closely allied to it. In case the suggestion is not successful, it is still as a rule realized in some indirect and mediate way. Man is not always doing what has been suggested to him; he sometimes obeys not the suggested idea itself, but some other idea associated with the former by contiguity, similarity, or contrast. Suggestion by contrast is especially interesting, as it often gives rise to counter-suggestion. Now such kind of suggestion, where not the suggested idea itself but the one associated with it is realized, I designate as *mediate*.

The subject's tendency to *mediate* or *actually construct* his own hypnotic responses out of the stimuli and suggestions proffered by the operator is an essential insight. It does away with the still all too common misconception of the hypnotic subject as a passive automaton who is programmed and controlled by the operator.

Another view of the dynamics and effectiveness of indirect suggestion is that of the Pavlovian school discussed by Platonov (1959) as follows:

In *indirect verbal suggestion* the effectuation of the suggestion is, as a rule, related to a particular object or influence by means of which the suggestion must actually be effectuated. Thus, for example, a waking subject is told that the indifferent white powder offered to him is a soporific. The subject therefore falls asleep as soon as he takes the white powder . . . . It follows that indirect verbal suggestion is based on the formation of a conditioned bond between the stimulus of the second signal system (the words of suggestion) and the stimulus of the first signal system (the white powder placebo), and the realization of the suggested effect (which provokes certain phenomena or acts), each of these three elements having definite direct cortical bonds with the past experience of the subject . . . . At the same time, in an indirect suggestion the moment of execution of the suggestion may be postponed. Thus, the execution of the suggestion is connected not only with a definite object (or word, or place) but also with a definite time for which it will be set. By force of this, the very fact of the *suggestive verbal influence recedes, as it were, into the background*. In other words, the suggestion by word *becomes latently active* . . . . It is precisely the *conditions under which the suggestion is effectuated* that are of importance in this case, because they help in reducing criticism and sometimes make possible a direct uncritical attitude to the suggested state or action. This circumstance was reflected in A. Forel's well known words: "Suggestion is the stronger the more *concealed* it is" [in other words, the more indirect it is].

Indirect suggestion may be successfully used with the subject awake; its suggestive influence is much greater than that of a direct suggestion. It frequently exerts an effective influence on people who do not yield to direct suggestion, as was pointed out by V. Bekhterev, A. Forel, F. Lowenfeld, et al.

Even this cursory overview of indirect suggestion reveals a number of basic features that are of particular interest: (1) Indirect suggestion permits the subject's individuality, previous life experience, and unique potentials to become manifest; (2) the classical psychodynamics of learning with processes like association, contiguity, similarity, contrast, etc., are all involved on a more or less unconscious level so that (3) indirect suggestion tends to bypass conscious criticism and because of this can be more effective than direct suggestion.

These features are entirely in keeping with our experience (Erickson, Rossi, and Rossi, 1976; Erickson and Rossi, 1976), which led us to summarize the microdynamics of trance induction and indirect suggestion as a five-stage process: (1) the fixation of attention, (2) depotentiating conscious sets and habitual frameworks, (3) unconscious search, (4) unconscious processes, and (5) hypnotic response. In essence, an indirect suggestion is regarded as one that initiates an unconscious search and facilitates unconscious processes within subjects so that they are usually somewhat surprised by their own response when they recognize it. More often than not, however, subjects do not even recognize the indirect suggestion as such and how their behavior was initiated and partially structured by it.

In the following, we will simply list and then illustrate a number of the indirect forms of suggestion that the senior author habitually uses in hypnotherapeutic practice. No claim can be made for the scientific status of the indirect forms of suggestion as listed and described herein. While they do reflect a great deal of clinical experience, we can only present them with a variety of unsystematic speculations about how we might understand their effectiveness. The coordinated efforts of many other investigators will be required to experimentally evaluate the validity and value of these indirect forms of suggestion in the general process of communication as well as in hypnotherapeutic applications.

## **The Indirect Forms of Suggestion**

1. Indirect Associative Focusing
2. Truisms Utilizing Ideodynamic Processes and Time
3. Questions That Focus, Suggest, and Reinforce
4. Implication
5. Therapeutic Binds and Double Binds
6. Compound Suggestions: Yes Set, Reinforcement, Shock, and Surprise
7. Contingent Associations and Associational Networks
8. The Implied Directive
9. Open-Ended Suggestions
10. Covering All Possibilities of Response
11. Apposition of Opposites
12. Dissociation and Cognitive Overloading
13. Other Indirect Approaches and Hypnotic Forms
14. Discussion

*1. Indirect Associative Focusing.* The simplest indirect form of suggestion is to raise a relevant topic without directing it in any obvious manner at the subject. Erickson likes to point out that the easiest way to help patients talk about their mothers is to talk about your own mother. A natural indirect associative process is thereby set in motion within the patients that brings up apparently spontaneous associations about their mother. Since Erickson does not directly ask about the patient's mother, the usual conscious sets and mental frameworks (e.g., psychological defenses) that such a direct question might evoke are bypassed. In a similar manner, when Erickson is working in a group, he will talk to one person about the hypnotic phenomena he wants another target person to experience. As he talks about hand levitation, hallucinatory sensations, or whatever, there is a natural process of ideomotor or ideo sensory response that takes place within the target subject on an autonomous or unconscious level. Erickson utilizes these spontaneous and usually unrecognized internal responses to "prime" a target subject for hypnotic experience before the subject's resistance or limited beliefs about his or her own capacities can interfere.

Similarly, in therapy Erickson uses a process of indirectly focusing associations to help patients recognize a problem. He will make remarks, or tell stories about a network of topics  $S_1, S_2, S_3, S_k$ , all of which have a common "focus" association,  $S^1$ , which Erickson hypothesizes to be a relevant aspect of the patient's problem. The patient sometimes wonders why Erickson is making such interesting but apparently irrelevant conversation during the therapy hour. If  $S^1$  is in fact a relevant aspect of the patient's problem, however, the patient will frequently find himself talking about it in a surprisingly revelatory manner. If Erickson guessed wrong and  $S^1$  is not a relevant aspect, nothing is lost; the patient's associative matrix simply will not add enough significant contributions to raise  $S^1$  to a conscious and verbal level. In this case Erickson allows himself to be corrected and goes on to explore another associative matrix. This indirect associative focusing approach is the basic process in what Erickson calls the "Interspersal approach."

*2. Truisms Utilizing Ideodynamic Processes and Time.* The basic unit of ideodynamic focusing is the truism, which is a simple statement of fact about behavior that the patient has experienced so often that it cannot be denied. In most of our case illustrations it will be found that the senior author frequently talks about certain psychophysiological processes or mental mechanisms as if he were simply describing objective facts to the patient. Actually these verbal descriptions can function as indirect suggestions when they trip off ideodynamic responses from associations and learned patterns which already exist within patients as a repository of their life experience. The "generalized reality orientation" (Shor, 1959) usually maintains these subjective responses in appropriate check when we are engaged in ordinary conversation. When attention is fixed and focused in trance so that some of the limitations of the patient's habitual mental sets are depotentiated, however, the following truisms may actually trip off a literal and concrete experience of the suggested behavior placed in italics.

**You already know how to experience pleasant sensations like the warmth of the sun on your skin.**

**Everyone has had the experience of *nodding their head* yes or shaking it no even without quite realizing it.**

**We know when you are asleep your unconscious can *dream*.**

**You can easily *forget* that dream when you awaken**

Another important form is the truism that incorporates time. Erickson would rarely make a direct suggestion for a definite behavioral response without tempering it with a time variable that the patient's own system can define.

***Sooner or later* your hand is going to lift (eyes close, etc.).**

**Your headache (or whatever) will disappear *as soon as* your system is ready for it to leave.**

3. *Questions that Focus, Suggest, and Reinforce*. Recent research (Sternberg, 1975) indicates that when questioned the human brain continues an exhaustive search throughout its entire memory system on an unconscious level even after it has found an answer that is apparently satisfactory on a conscious level. The mind scans 30 items per second even when the person is unaware that the search is continuing. This unconscious search and activation of mental processes on an unconscious or autonomous level is the essence of Erickson's indirect approach, wherein he seeks to utilize a patient's unrecognized potentials to evoke hypnotic phenomena and therapeutic responses.

Questions are of particular value as indirect forms of suggestion when they cannot be answered by the conscious mind. Such questions tend to activate unconscious processes and initiate the autonomous responses which are the essence of trance behavior. The following are illustrations of how a series of questions can focus attention to initiate trance, reinforce comfort, and lead to hypnotic responsiveness.

**Would you like to find a spot you can look at comfortably? As you continue looking at that spot, do your eyes get tired and have a tendency to blink?**

**Will they close all at once or flutter a bit first as some parts of your body begin to experience the comfort so characteristic of trance?**

**Does that comfort deepen as those eyes remain closed so you would rather not even try to open them?**

**And how soon will you forget about your eyes and begin nodding your head very slowly as you dream a pleasant dream?**

This series begins with a question that requires conscious choice and volition on the part of the patient and ends with a question that can only be carried out by unconscious processes. An important feature of this approach is that it is failsafe in the sense that any

failure to respond can be accepted as a valid and meaningful response to a question. Another important feature is that each question suggests an *observable* response that gives the therapist important information about how well the patient is following the suggestions. These observable responses are all associated with important internal aspects of trance experience and can be used as *indicators* of them.

4. *Implication.* An understanding of how Erickson uses psychological implication can provide us with the clearest model of his indirect approach. Consider the following example of the multiple implications in a single sentence that seemingly states the obvious.

**The very complexity of mental functioning,**

A truism about psychology that initiates a “yes” or acceptance set for what follows.

**you go into trance to find out**

With a slight vocal emphasis on “to find out,” this phrase implies the patient will go into trance and will go into trance to find something important.

**a whole lot of things you can do,**

Implies that it is not what the therapist does but what the patient does that is important.

**and they are so many more than you dreamed of. (Pause.)**

The pause implies that the patient’s unconscious may now make a search to explore potentials previously undreamed of. This sets up an important expectancy for experiencing unusual or hypnotic phenomena.

It is important in formulating implications to realize that the therapist only provides a stimulus; the hypnotic aspect of psychological implications is created on an unconscious level by the listener. The most effective aspect of any suggestion is that which stirs the listener’s own associations and mental processes into automatic action; it is this autonomous activity of the listener’s own mental processes that creates hypnotic experience.

The use of psychological implication by association illustrated above depends upon the therapist’s ability to initiate subjective responses that will be of value to the patient. The more formal forms of *material implication*, by contrast, which have been carefully defined by the if . . . then relation between antecedent and consequent (Copi, 1954), depend upon the objective structure of language for their effects and are more universally applicable even without an understanding of the patient’s subjective world.

On the simplest level Erickson might state, “If you sit down, then you can go into trance.”

Or:             $S \supset T$   
Where:         $S =$  If you sit down  
                   $\supset =$  then (sign for material implication If . . . then  
                   $T =$  you can go into trance.

On a more complex level Erickson might state, “If you sit or lie down, then you can go into trance.

Or:             $(S \vee L) \supset T$   
Where:         $S =$  If you sit down  
                   $\vee =$  or  
                   $L =$  lie down  
                   $\supset =$  If . . . then.  
                   $T =$  you can go into trance

When an implication is stated in this form of giving the patient two or more alternatives, all of which lead to the same desired response (trance in this case), we describe the situation as a therapeutic bind.

*5. Therapeutic Binds and Double Binds.* The presentation of two or more alternatives, any one of which will lead to a desired therapeutic response, is easily done with questions.

**Would you like to experience a light, medium, or deep trance?**

**Would you like to go into trance now or in a few minutes?**

When the patient's conscious mind can discriminate and make a choice between the alternatives, we speak of a *bind*. When the conscious mind cannot make a choice between the alternatives, we may more properly speak of a double bind because choice is then relegated to responding on another level. This other level, sometimes termed a metalevel (Bateson, 1972, 1975; Watzlawick, Beavin, and Jackson, 1967; Sluzki and Ransom, 1976), can be conceptualized as an unconscious or autonomous mental process.

Typically we induce trance and give subjects a certain amount of hypnotic training, which consists essentially of having them learn to give up control of what was formerly under their control (e.g., in hand levitation, what was formerly voluntary hand lifting is made involuntary; what was formerly a voluntary act of writing is now converted to automatic writing, and so on). This giving up of former areas of control in the special setting called the “hypnotherapeutic situation” is a rehearsal for unlearning what was formerly an over learned but maladaptive and all too rigid mental frameworks that

prevented the subjects from utilizing all their capacities. Hypnotherapeutic training helps patients unlearn their learned limitations. When thus freed from their learned limitations, they can experience their potentials for new and more creative patterns of behavior, which are the essence of therapeutic change. The conscious-unconscious double bind is a basic approach for achieving these goals.

The *conscious-unconscious double bind* is a term we use to describe a hypnotic form that is basic to much of Erickson's work. Erickson frequently gives a preinduction talk about the differences between the functioning of the conscious and unconscious mind. This prepares the patient for double binds that rest upon the fact that we cannot consciously control our unconscious. The conscious-unconscious double bind thus tends to block the patient's usual, voluntary modes of behavior so that responses must be mediated on a more autonomous or unconscious level. Any response to the following suggestions, for example, requires that the subject experience the sort of inner focus that Erickson describes as trance.

**If your unconscious wants you to enter trance, your right hand will lift. Otherwise your left will lift.**

**You don't even have to listen to me because your unconscious is here and can hear what it needs to, to respond in just the right way.**

**And it really doesn't matter what your conscious mind does because your unconscious automatically will do just what it needs to in order to achieve that anaesthesia [age regression, catalepsy, etc.].**

**You've said that your conscious mind is uncertain and confused. And that's because the conscious mind does forget. And yet we know the unconscious does have access to so many memories and images and experiences that it can make available to the conscious mind so you can solve that problem. And when will the unconscious make all those valuable learnings available to your conscious mind? Will it be in a dream? During the day? Will it come quickly or slowly? Today? Tomorrow?**

The patient's consciousness obviously cannot answer these questions, so it must rely on an unconscious or metalevel of functioning to deal with the problem.

Suggestions that cannot be accomplished by voluntary effort tend to evoke therapeutic double binds.

**As you continue resting in trance, does that pain (or whatever symptom) grow stronger or does it tend to fade in and out?**

**Does it slowly change its location?**

**Tell me whatever changes you notice in that pain [or whatever] in the next few minutes.**

**Let your head begin to nod very, very slowly when a feeling of warmth or coolness, prickliness, numbness, or whatever begins to develop in that pain area.**

Whatever experience patients have in response to such suggestions is in a direction of therapeutic change. Even if the pain, for example, gets worse, the patients are caught in a therapeutic double bind because they are now experiencing the fact that they have some control over their pain, which was formerly experienced as being out of their control. If one can make the pain worse, it implies that one can also diminish it. This is the basis of the double bind approach to dealing with symptomatic behavior by *prescribing the symptom* (see Watzlawick, Beavin, and Jackson, 1967, for many examples). In dealing with weight problems, for example, Erickson will frequently suggest that a patient who is over weight at 180 pounds should first learn to “over eat enough to weigh 185 pounds.” Whether the patients follow this suggestion with dismay or glee, he is still, without quite realizing it, learning to gain control over what had seemed uncontrollable. Having experienced this control the patient is then enjoined to “over eat enough to maintain a weight of 182 pounds, 181, 180, 178, 175, [etc., down to the proper weight].

This approach to symptom control is actually the reverse of our earlier use of the conscious-unconscious double bind to facilitate trance induction by converting voluntary behavior into involuntary behavior. It is a fascinating and little realized characteristic of the double bind that it can help make involuntary what was previously voluntary, and vice versa. In some way the metalevel of the double bind enables us to change whatever was voluntary or involuntary on our ordinary level of behavior into its reverse. Thus when patients have symptoms or problems over which they claim no control, the double bind becomes a means of helping them experience and gradually establish control. When people have problems because their potentials are experienced as not being available to them (e.g., the underachiever in any area), the double bind can frequently facilitate within them the process of gradually acquiring control over these latent potentials so that they can become established abilities.

We have emphasized the conscious-unconscious double bind in this presentation because it is the easiest to understand and use in a variety of applications. In most real-life situations, however, the metalevel that frames or modifies the ordinary message level in the double bind can be made in many ways or through many channels. Haley (in Sluzki and Ransom, 1976) describes it succinctly as follows in his description of the development of double bind theory:

The complexity of communication, when analyzed in terms of levels of classification, or logical types, was becoming more apparent. There were now at least four “channels” of communication (words, voice, body movement [or gesture], context) each emitting messages which qualified each other and so were of different logical type, and within each channel any message which qualified another was of another logical type. The number of metalevels began to appear infinite. The general tendency of the project was to simplify toward two levels of message and a third level qualifying those two.

It is thus apparent that communication, and hypnotic communication in particular, is vastly more complex than we have ever realized. Depth psychotherapists as well as traditional wisdom have recognized this in the view that our consciousness, however well developed, is still but a reed on the sea of unconsciousness.

6. *Compound Suggestions*. A surprisingly simple aspect of Erickson's approach is the use of compound suggestions. In its simplest form the compound suggestion is made up of two statements connected with an "and" or a slight pause. One statement is an obvious truism that initiates an acceptance or "yes" set, and the other is the suggestion proper.

When one of Erickson's daughters returned from the orthodontist, he said, **That mouthful of hardware that you've got in your mouth is miserably uncomfortable and it's going to be a deuce of a job to get used to it.**"

The first half of this sentence is a truism that states the facts of his daughter's undeniable reality of discomfort. The second half beginning with "and" is a suggestion that she will "get used to it" and not let it bother her. Erickson will frequently use a series of truisms to establish a yes set or acceptance set within the patient so that the suggestion that follows can be more readily accepted.

A more subtle type of compound suggestion is

**Just look at one spot and I am going to talk to you.**

In this example the therapist has control over his own behavior (I'm going to talk to you), and by simply talking he can actually reinforce the suggestion to "look at one spot. "

A sense of shock or surprise can be used in the first half of a compound statement. This has the effect of depotentiating the patient's habitual conscious sets so that they are expectant and in need of further "explanation" to resolve the shock. The "explanation," of course, actually comes in the form of a suggestion that the patient now needs to reestablish his equilibrium. Any emotionally loaded words or ideas can be used to initiate the shock, which is then resolved with a therapeutic suggestion.

**Secret feelings you have never told anyone about**

**can be reviewed calmly within the privacy of your own mind**

**for help with your current problem**

In the above, "secret feelings" tends to initiate a shock that can then be resolved with the therapeutic suggestions that follow. This use of shock and surprise immediately followed by a therapeutic suggestion is most effective when it is formulated to touch upon the individual patient's most personal associations.

*7. Contingent Suggestions and Associational Networks.* Another form of compound suggestion is used when Erickson arranges conditions such that a patient's normal flow of voluntary responses is made contingent on the execution of a hypnotic suggestion (the "contingent" suggestion). A hypnotic response that may be low in a patient's behavioral hierarchy is associated with a pattern of responses high on the patient's behavioral repertory and usually already in the process of taking place. The patient finds that the momentum of ongoing behavior is too difficult to stop, so he simply adds the hypnotic suggestion as an acceptable condition for the completion of the pattern of behavior that has already begun and is pressing for completion. The contingent suggestion simply "hitchhikes" onto the patient's ongoing flow of behavior. Responses that are inevitable and most likely to occur are made contingent on the execution of the hypnotic response. Erickson thus interlaces his suggestions into the patient's natural flow of responses in a way that causes hardly a ripple of demur.

**A number of examples used to induce systematically deepened trance are as follows:**

**Your eyes will get tired and close all by themselves as you continue looking at that spot.**

**You will find yourself becoming more relaxed and comfortable as you continue sitting there with your eyes closed.**

**As you feel that deepening comfort you recognize you don't have to move, talk, or let anything bother you.**

**As the rest of your body maintains that immobility so characteristic of a good hypnotic subject, your right hand will move the pencil across the page writing automatically something you would like to experience in trance.**

In the first two of the above the suggestion in the beginning of the sentence is tied to the ongoing behavior introduced in the second half with the word "as." In the second two the ongoing behavior is mentioned first and a suggestion is then tied to it.

There are many forms of contingent suggestions. When B is any form of ongoing or inevitable future behavior on the part of the subject and Sg is a suggestion, the following paradigms illustrate how one can structure contingent suggestions. While you B you can Sg; when you B please Sg; don't Sg until you B; why don't you Sg before you B; the closer you get to B the more you can Sg; after Sg you can B.

Associating suggestions in such interlocking chains creates a network of mutually reinforcing directives that gradually form a new self-consistent inner reality called "trance." It is construction of such interlocking networks of associations that gives "body" or substance to trance as an altered state of consciousness with its own guideposts, rules, and "reality."

8. *The Implied Directive.* The “implied directive” is a label we are proposing for a fairly common type of indirect suggestion that is in current use in clinical hypnosis (Check and LeCron, 1968). The implied directive usually has three parts: (1) a time-binding introduction, (2) the implied (or assumed) suggestion, and (3) a behavioral response to signal when the implied suggestion has been accomplished. Thus:

**As soon as your unconscious knows**

(1) A time-binding introduction that focuses the patient on the suggestion to follow

**only you or I, or only you and my voice are here [or any suggested behavior]**

(2) The implied (or assumed) suggestion

**your right hand will descend to your thigh.**

(3) The behavioral response signaling that the suggestion has been accomplished.

An implied directive frequently used by the author to end a hypnotherapeutic session is as follows:

**As soon as your unconscious knows**

(1) A time-binding introduction that facilitates dissociation and reliance on the unconscious.

**it can again return to this state comfortably and easily to do constructive work the next time we are together.**

(2) The implied suggestion for easy reentry to trance, phrased in a therapeutically motivating manner.

**you will find yourself awakening feeling refreshed and alert.**

(3) The behavioral response signaling that the above suggestion has been accomplished.

When the behavioral response signaling the accomplishment is also an inevitable response that the patient wants to happen (as in the above examples), we have a situation where the behavioral response can have motivating properties for the accomplishment of the suggestion. The behavioral response signaling the accomplishment of the suggestion takes place on an involuntary or unconscious level. Thus the unconscious that carries out the suggestion also signals when it is accomplished. Such implied directives engender a covert state of internal learning. It is covert because no one can tell it is occurring because it is a series of responses taking place entirely within the subject, frequently without conscious awareness and usually unremembered after trance. Therapist and patient only know it is completed when the requested automatic response (e.g., finger

signaling, head nodding, awakening from trance) takes place, signaling the end of the internal state of learning.

One of Erickson's implied directives outlined above may be analyzed via symbolic logic and possibly improved on the basis of that analysis as follows:

Let S: As soon as you know that only you or I, or only you and my voice are here, then your right hand will descend to your thigh.

Where P: You know that only you or I are here.

Q: You know that only you or my voice are here

R: Your right hand will descend to your thigh.

The time-binding introduction, "As soon as you know," can be formulated for logical purposes as "Any time after this," so that S becomes  $S^1$ .

$S^1$ : Any time after this, if you know that only you or I are here, or if you know that only you and my voice are here, then your right hand will descend.

This may be simplified to the form  $S^{11}$ .

$S^{11}$ : When P or Q, then R

By using material implication where a time sequence is understood, (our time-binding introduction),  $S^{11}$  will have the form

$(P \vee Q) \supset R$

Under this form, if either P or Q holds, R has to follow. However, the fact that R occurs does not necessarily mean that either P or Q did in fact take place within the subject. The logical properties of material implication are such that it is true whenever its consequent R is true. In our particular case, whenever R occurs, it is true that P or Q is *sufficient* but not *necessary* for R.

Because of this, S understood as  $S^1$  or  $S^{11}$  is too weak. It allows for other possibilities. The occurrence of R may have been brought about by conditions either than P or Q; in fact it could have been brought about by the non realization of P or of Q.

Because of this, when S is understood as  $S^1$  or  $S^{11}$ , R is not an adequate signal that P or Q have in fact taken place. This could account for much of the variability found in response to S by different subjects.

S, however, can be understood another way—namely, as saying  $S^*$ .

$S^*$ : Your right hand will descend to your thigh *as soon as* you know that only you or I, or only you and my voice are here.

“As soon as” in S\* could have the sense of “only when,” in which case S\* will be understood as saying S\*\*.

S\*\*: Your right hand will descend to your thigh *only when* you know that only you or I or only you and my voice are here.

“Only when,” like “when,” suggests a time sequence (our time-binding introduction), but for our purposes here it will suffice to understand it in terms of the material implication, so “only when” paraphrases out as “only if,” and S\*\* may be formulated as S\*\*\*.

S\*\*\*: Your right hand will descend to your thigh only if you know that only you or I or only you and my voice are here.

S\*\*\* has the following form:

S\*\*\*\*: R only if P or Q  
:R ⊃ (P or Q)

When S is understood in terms of S\*\*\*, the occurrence of R is a sufficient signal that one of P or Q has taken place, because unlike S<sup>1</sup> or S<sup>11</sup>, S\*\*\* says that P or Q is a *necessary condition* for R.

This analysis of Erickson’s use of the implied directive suggests that some failures to respond to this form of hypnotic suggestion may be due to the fact that the implied directive, on logical ground alone, is weak in the sense that it is not a *necessary condition* for a hypnotic response. Reformulating Erickson’s original statement S as S\*\*\* strengthens the logical aspect so that the hypnotic response is more likely to occur. This is another point for empirical investigation, however. If it is found that S\*\*\* does in fact elicit the appropriate hypnotic response more than S, we will have empirically established the significance of correct logical formulations for hypnotic suggestions.

The implied directive is particularly interesting because of its similarity to the technique of biofeedback. In most forms of biofeedback an electronic device is used to signal when an internal response has been accomplished. With the implied directive the patient’s own overt and autonomous behavioral response is used to signal when the internal response has been accomplished. The formal similarities between them may be listed as follows:

1. Consciousness is given a task it does not know how to accomplish by itself. Thus:

**Raise (or lower) your blood pressure 10 points.**

**Warm your right hand and cool your left.**

**Increase the alpha of your right cortex.**

**Decrease the muscle tension in your forehead.**

2. Consciousness is given a signal enabling it to recognize when any behavior changes are being made in the desired direction of response. In biofeedback this is accomplished by an electronic transducer that measures the response (in the above examples, blood pressure, body temperatures, alpha waves, or muscle tension) and makes any change in this response evident on a meter that allows the subjects to monitor their own behavior.

In the implied directive, by contrast, the patient's own unconscious system serves as the transducer indicating when the desired internal response (blood pressure change, body temperature, etc.) has been made and translates it into an overt behavioral signal that consciousness can recognize.

9. *Open-Ended Suggestions.* The open-ended suggestion is of particular value for exploring whatever responses are currently available to subjects. It is of value on the level of conscious choice as well as unconscious determinism. When patients are fully awake, the open-ended suggestion permits them free choice about the issues and behavioral alternatives that are available. When patients are in trance where unconscious and autonomous tendencies are facilitated, the open-ended suggestion permits the unconscious to select just what experiences are most appropriate:

**Every person has abilities not known to the self, abilities that can be expressed in trance.**

**Memories, thoughts, feelings, sensations completely or partially forgotten by the conscious mind. Yet they are available to the unconscious and can be experienced within trance now or later whenever the unconscious is ready.**

In this series of open-ended suggestions a broad latitude is permitted, so that whatever the subject experiences can be accepted as valid and serve as a foundation for future work.

10. *Covering All Possibilities of Response.* While the open-ended suggestion is a form of open exploration seeking to utilize whatever response tendencies are available to a subject, suggestions covering all possibilities of response attempt to focus a response into a narrow range of particular interest. This is well illustrated when we use an iterative procedure for gaining successively closer approximations to the desired response. A sample of Erickson's work eliciting automatic handwriting with this approach is as follows:

**You can scribble, or make a mark or a line here or there. You can write a letter here, a letter there. A syllable here, a syllable there. A word here, a word there. A word following a syllable, a letter. You can misspell a word. You can abbreviate or write the wrong word. [etc.]**

The classic example of facilitating suggestion by covering all possibilities of response is Erickson's (1952) directives for hand levitation.

**Shortly your right hand, or it may be your left hand, will begin to lift up, or it may press down, or it may not move at all, but we will want to see just what happens. Maybe the thumb will be first, or you may feel something happening in your little finger, but the really important thing is not whether your hand lifts up or presses down or just remains still; rather, it is your ability to sense fully whatever feelings may develop in your hand.**

Covering all (or most) possibilities of response in this example permits the subjects' own individuality to select the modus operandi and hence greatly increases the likelihood of a response of one sort or another. It is a fail-safe suggestion because even if no ideomotor movement takes place, that possibility has been covered ("it may not move at all") as acceptable. The unrecognized implication in most suggestions that cover all possibilities of response is that attention is being fixated and focused and thus trance is being facilitated no matter what happens. The unconscious is being given freedom to express itself in whatever ideomotor fashion it can, while consciousness is fixated on the task of simply observing what will happen. The last phrase of the suggestion ("sense fully whatever feelings may develop in your hand") is an indirect suggestion for an ideo sensory response that is actually an inevitability (everyone can experience some feeling in their hand). Whatever happens, then, can be experienced as a successful response. It can then be used as a starting point for exploring the type of responsiveness a subject can make available for other hypnotic work.

11. *Apposition of Opposites*. Another of Erickson's indirect forms of hypnotic suggestion is his penchant for the close juxtaposition or apposition of opposites. This seems to be a basic element in his confusion techniques, but it also may be a means of utilizing another natural mental mechanism to facilitate hypnotic responsiveness. Kinsbourne (1974) has discussed how the "balance between opponent systems" is a basic neurological mechanism that is built into the very structure of the nervous system. What we are labeling as the "apposition of opposites" may be a means of utilizing this fundamental neurological process to facilitate hypnotic responsiveness. In the following, Erickson is apparently balancing the opponent systems of remembering and forgetting to facilitate hypnotic amnesia. This apparent balancing of opposites is also a double bind: The end result is an amnesia no matter which alternative is acted upon.

You can *forget to remember* or *remember to forget*.

Other modalities for the apposition of opposites are in lightness and heaviness, warmth and coolness, relaxation and tension, or just about any opponent system if the body that can be described verbally.

**As your hand feels light and lifts, your eyelids will feel heavy and close.**

This juxtaposition of lifting and lightness with heaviness and closure illustrates the balance between opponent systems. If we emphasize lightness and levitation, then we are shifting the subject out of equilibrium, heaviness and closure of the eyelids tends to

reestablish that equilibrium in a subjective, psychological sense even though not in an objective or physiological sense.

12. *Dissociation and Cognitive Overloading*. Multiple tasks can be presented to divide the unified field of consciousness. The resulting state of dissociation can provide an optimal field for autonomous responses. When the greater part of consciousness is focused on one task, a second task can only be carried out in a state of dissociation and partial or complete autonomy. This is particularly the case when we use hand, head, or finger signaling as the second task as illustrated below.

**I want you to see someone sitting over there, and while working on that you can wonder what your hands are going to do. Will they lift up or down?  
Lifting the left hand means no, and the right hand means yes, you will be able to see that visual image over there.**

A curious example of overloading a patient with a confusing series of alternative responses that culminates in an easy-to-accept suggestion to enter trance runs somewhat as follows.

**You can stand up or sit down. You can sit in that chair or the other. You can go out this door or that. You can come back to see me or refuse to see me.  
You can get well or remain sick. You can improve or you can get worse. You can accept therapy or you can refuse it. Or you can go into a trance to find out what you want.**

Dissociation can be facilitated by offering tasks that the subject is unfamiliar with and multiple possibilities of response that can be alternatives or reversals of each other. This form of suggestion frequently leads to the sort of cognitive overloading and confusion that depotentiates the subject's ability to make a rational choice so that the response that finally emerges is likely to be more truly autonomous. An example is as follows:

**You can write that material without ever knowing what it is: Then you can go back and discover you know what it is without knowing that you have written it.**

This has been described as a double dissociation double bind (Erickson, Rossi, Rossi, 1976), since each sentence by itself constitutes a dissociation: In the first sentence writing is dissociated from knowing, and in the second knowing what is written is dissociated from knowing that the subject wrote it.

Such formulations for automatic writing with or without a recognition of its meaning or that one has written it are not as arbitrary as they may seem. Studies of the secondary zones of the occipital cortex and optico-gnostic functions (Luria, 1973) illustrate that each of the above possibilities can occur naturally in the form of agnosias when there are specific organic disturbances to brain tissues. Each of these agnosias is only possible because a discrete mental mechanism for normal functioning has been disturbed when

they appear. The agnosias are thus tags for identifying discrete mental mechanisms. A so-called suggestion in the form of a double dissociation double bind may be utilizing these same natural mental mechanisms. One could hypothesize that these mental mechanisms may be turned on or off in trance even though they are usually autonomous in their functioning when normally awake. From this point of view we can conceptualize "suggestion" as something more than verbal magic. Adequately formulated hypnotic suggestion may be utilizing natural processes of cortical functioning that are characteristic of the secondary and tertiary zones of cerebral organization. These processes are synthetic and integrative in their functioning and are responsible for processes of perception, experience, recognition, and knowing. Constructing hypnotic forms that can either block or facilitate these discrete mechanisms of the secondary and tertiary zones thus has the potential for vastly extending our understanding of cerebral functioning.

A careful reading of Luria (1973, particularly Part II, Chapter 5, on the "Parietal Regions and the Organization of Simultaneous Synthesis"), for example, suggests fascinating possibilities for hypnotic research. If  $T_1, T_2, T_3 \dots T_k$  are all testable behavioral functions of the parietal cortex (Christensen, 1975 has already prepared a manual of such standardized tests), we may learn to gradually enhance or block a number of these related functions by suggestion. If we first block functions  $T_1, T_2, T_3$  and then find that  $T_4$  and  $T_5$  are also blocked, we will have established that  $T_4$  and  $T_5$  are indeed related to  $T_1, T_2$ , and  $T_3$  and mediated by similar neuropsychological processes. Such research would not only supplement our current approaches to identifying and tracing out neuropsychological functions, it would also be a new approach for establishing how certain forms of hypnotic suggestion are mediated by specific patterns of cortical activity. This writer strongly suspects that many of the fascinating but seemingly inexplicable psychosomatic interrelations reported by Erickson (1943) in his experimental investigations may be mediated by such processes.

The following is another example of a double dissociation double bind that is analyzed in greater detail with the help of symbolic logic.

*Erickson statement*

*Symbolic Logic*

- 1. **You can as a person awaken**
- 2. **but you do not need to awaken as a body**

P

-q

(Pause.)

v

- 3. **You can waken when your body awakens**
- 4. **but without a recognition of your body**

P . q

-r

Where P = Person awakening  
 -q = Not awakening as a body  
 P.q = Awakening as a person and body  
 -r = Without a recognition of your body

v = or (understood)

We may explicate the meaning of the four phrases of this statement as follows;

### **1. You can as a person awaken (P)**

This first phrase has a simple, ordinary meaning that the patient can accept, and as such it begins to structure a yes set.

### **2. but you do not need to awaken as a body (-q)**

This second phrase is curious in the context of the above, and it is well that Erickson pauses after it to let its effect take place.

Taken together these first two phrases (P . -q) have a point only within the following background assumptions of the patient.

- i) P . q (a person awakens when his body awakens)
- ii) In fact, P if and only if q, which is the same as:  
if P then q, and if q then P.

Erickson grants (i) to the patient (as a yes set). Now the patient actually assumes (i) actually to mean (ii). But Erickson's second phrase (-q) invalidates the patient's assumption of (ii). This separation of the assumed association of P and q is startling to the patient, and it is the essence of a hypnotic phenomenon he experiences by a process of shock and dissociation. That is, breaking the association of P and q in (ii) sets the conditions for a hypnotic phenomenon: the manifestation of P and -q (the person awakens without his body awakening).

We may explicate phrases three and four in a similar manner. Phrase three, P . q (you can waken when your body awakes) functions as a yes set, while phrase four -r (but without a recognition of your body) again breaks certain of the patient's assumptions as follows.

- (i) [P . q ] . r (people awaken when their bodies awaken and they recognize their bodies)
- (ii) in fact, r if and only if (P . q) (you recognize your body if and only if you awaken both as a person and a body)

Again we find that the conditions for a hypnotic phenomenon (P . q ) . -r (not recognizing one's body when one awakens as a person and body) are arranged by breaking the association between behaviors that usually occur together. This is of course nothing new; hypnotic phenomena have frequently been conceptualized as a process of dissociation.

What is new in this analysis is a proposal of how Erickson can effect these dissociations so succinctly with the turn of a phrase.

We may write the total statement using a *vel* (a logical connective for “or”) in place of the pause as follows.

$$1. (P \cdot \neg q) \vee [(P \cdot q) \cdot \neg r]$$

Unlike all the previous examples this statement is more open-ended insofar as anyone of a number of outcomes are possible. We may determine the logical possibilities of behavior by simplifying the above into a disjunctive normal form by repeated applications of distribution as follows:

$$\begin{aligned} 2. & [(P \cdot \neg q) \vee (P \cdot q)] \cdot [(P \cdot \neg q) \vee \neg r] \\ 3. & \{(P \cdot \neg q) \cdot [(P \cdot \neg q) \vee \neg r]\} \vee \{(P \cdot q) \cdot [P \cdot q] \vee \neg r\} \end{aligned}$$

The first half of the above disjunction resolves as follows:

$$\begin{aligned} 4. & (P \cdot \neg q) \cdot [(P \cdot \neg q) \vee \neg r] \\ 5. & [(P \cdot \neg q) \cdot (P \cdot q)] \vee [(P \cdot \neg q) \cdot \neg r] \\ 6. & (P \cdot \neg q) \vee [(P \cdot \neg q) \cdot \neg r] \end{aligned}$$

The second half of equation 3 resolves as follows:

$$\begin{aligned} 7. & (P \cdot q) \cdot [(P \cdot \neg q) \vee \neg r] \\ 8. & [(P \cdot q) \cdot (P \cdot q)] \vee [(P \cdot q) \cdot \neg r] \\ & \quad [(P \cdot q) \cdot \neg r] \end{aligned}$$

Putting together the resolved equations 6 and 8 we obtain:

$$\begin{aligned} 9. & \{(P \cdot \neg q) \vee [(P \cdot \neg q) \cdot \neg r]\} \vee \{(P \cdot q) \cdot \neg r\} \text{ or more simply:} \\ 10. & [P \cdot \neg q] \vee [P \cdot \neg q \cdot \neg r] \vee [P \cdot q \cdot \neg r] \end{aligned}$$

The possible outcomes of Erickson’s original statement may therefore be read:

- a. You can as a person awaken, but you do not need to awaken as a body.
- b. You can as a person awaken, but you do not need to awaken as a body and without recognition of your body.
- c. You can as a person awaken, and you can as a body awaken, but without a recognition of your body.

Such an open-ended suggestion that admits many possible options of hypnotic response is very useful, since it provides greater assurance that some part of the overall suggestion will be followed. This is particularly important in the early phases of hypnotic work, where the therapist wants to investigate the patient’s response aptitudes but not risk the possibility of the patient failing on a suggestion.

Such formulations have never been tested in a controlled empirical manner, however. It is now an empirical question to determine if Erickson's original statement of the form

$$(P \cdot \neg q) \vee (P \cdot q) \cdot \neg r]$$

when administered to a group of subjects, does in fact yield the varying possibilities of response

$$(P \cdot \neg q) \vee (P \cdot \neg q \cdot \neg r) \vee (P \cdot q \cdot \neg r)$$

whatever P, q, and r may be.

According to logic all possibilities of response should be equipotent, so theoretically 33% of the subjects should be responding in each category. Any empirical deviation found from this theoretical expectation could then be attributed to processes of learning (conditioning, etc.), innate biological proclivities, or varying proportions of each.

13. *Other Indirect Approaches and Hypnotic Forms.* Because of space limitations we can only mention a number of other indirect approaches and hypnotic forms which Erickson and the author have presented previously in detail (Rossi, 1972, 1973; Erickson and Rossi, 1974, 1975, 1976; Erickson, Rossi, and Rossi, 1976; Erickson and Rossi, 1979). These include the paradigm of *Shock, Surprise, and Creative Moments, Intercontextual Cues and Suggestions, Partial Remarks and Dangling Phrases, Expectancy, Involuntary Signaling, Displacing and Discharging Resistance, The Negative, Two-Level Communication via Puns, Analogy, etc., Pantomime and Nonverbal Approaches, Confusion Approaches, Voice Locus and Dynamics, and Therapists' Rhythm.*

14. *Discussion.* While the indirect forms of hypnotic suggestion outlined in this paper are the results of more than 50 years of clinical experience and research by Erickson, the major limitation of this study is that it is a post hoc analysis of what he believes to be the significant factors in his work. Although this study illustrates how indirect suggestion can be effective, there is nothing in our work that establishes just how much of a contribution these indirect suggestions actually make in facilitating hypnotic responsiveness.

Experimental research will be needed to establish the comparative merit of direct and indirect suggestion while controlling subject, operator, and response variables. In practice, Erickson's use of these indirect forms is not independent, from one another; he may use several in the same phrase or sentence. He believes that this shotgun approach enhances their effectiveness. These indirect forms are also frequently used in association with his utilization approach (Erickson, 1959), wherein he uses the subject's own behavior to enhance the development of hypnotic responses. Because of this the junior author would hypothesize that in factorial experimental designs the interaction of *indirect approaches X utilization* would be more significant than the main effect of either factor alone. Since much of the effectiveness of Erickson's work appears to be a function of his own personality, another major issue is the degree to which his approaches can be learned and used successfully by others. A certain amount of experience and skill is required to

recognize and utilize a subject's ongoing flow of behavior to simultaneously explore and enhance hypnotic responsiveness. Any fair test of Erickson's approaches requires that the researcher first achieve some criterion of personal skill as a hypnotic operator in utilizing ongoing behavior.

An overview of this paper reveals a number of features of the indirect hypnotic forms. If patients have problems because of learned limitations, then the indirect hypnotic forms are particularly useful, because they are designed to bypass the biases and limitations of their conscious sets and belief systems so that their potentials have an opportunity to become manifest. If some hypnotic phenomena are processes mediated by the right hemisphere (Gur and Reyher, 1976), it is tempting to speculate that many of the indirect hypnotic forms may be communication paradigms in the language of the left hemisphere that somehow instruct or program the right hemisphere to initiate certain activities that can be carried out only by its unique nonverbal modes of functioning. Most of the indirect forms are fail-safe, nondirective, patient-centered approaches that are ideal for exploring individual differences and human potentials—particularly those nonverbal potentials related to the autonomic nervous system that are facilitated by biofeedback technology.

Most of the indirect approaches can be used in any form of therapy, education, or experimental procedures with or without the formal induction of trance. Because they fixate attention, focus the subject inward, and initiate autonomous or unconscious processes, these indirect approaches could be described as being trance-inducing in the most general sense of the word; they usually focus attention so the subject is momentarily but totally absorbed in what we call the "common everyday trance" (Erickson and Rossi, 1976). Because they tend to initiate trance behavior, the presence of these indirect forms must be carefully considered in any experimental procedure based upon the differential response of hypnotic and nonhypnotic control groups. The "instructions" given to nonhypnotic control groups should not contain any indirect hypnotic forms.

Erickson's emphasis on the indirect hypnotic forms could be another factor in the rapprochement between state and nonstate theorists (Spanos and Barber, 1974). Although Erickson continues to maintain that trance is an altered state, he certainly does not believe hypersuggestibility is a necessary characteristic of trance (Erickson, 1932). Along with Weitzenhoffer he believes trance and suggestibility are independent phenomena that may or may not coincide in any particular subject at any particular moment. Erickson depends upon communication devices such as the indirect hypnotic forms described in this paper to evoke and mobilize a patient's associative processes and mental skills to facilitate hypnotic phenomena. His utilization theory implies that the essence of hypnotic suggestion is actually this process of evoking and utilizing each patient's own mental processes in ways that are frequently experienced as being outside their usual sense of intentionality or voluntary control. The junior author, therefore, believes that Erickson (state theorist) and Barber (nonstate theorist) could agree that a formal or ritualized trance induction is not necessary for the experience of most hypnotic phenomena. In practice both rely upon certain forms of suggestion to mediate hypnotic phenomena. Their approaches to suggestion, however, are very different. When Barber asks a subject

voluntarily to think and imagine along with those things that are directly suggested, he is obviously enlisting the aid of the subject's consciousness. Barber uses an essentially rational approach in the typical tradition of academic psychology and appears to be training people in *waking suggestion* (Weitzenhoffer, 1957), where they learn to direct themselves in a conscious manner. Erickson, by contrast, appears to make every effort to bypass the subject's conscious sets and intentionality with the indirect forms of suggestion which tend to evoke unconscious or autonomous processes. Erickson belongs to the tradition of depth psychology, in its typical reliance on the unconscious, and appears to be training people in *hypnotic suggestion* where they learn to let things happen autonomously.

A recent summary statement of the nonstate position is as follows: "For the nonstate investigators such as Sarbin and Barber, involved suggestion-related imagining (or its synonyms such as thinking and imagining with the themes of the suggestion) functions as an alternative to the traditional trance state formulation of hypnotic behavior" (Spanos and Barber, 1974). State theorists like Erickson might reply to this that "involved suggestion-related imagining" actually engages autonomous mental processes; it is precisely this deep involvement and absorption in the use of imagination that permits autonomous processes to play a larger role in evoking responses that are sometimes experienced as involuntary. The involuntary aspect of the response then becomes a defining characteristic of trance for the state theorist. Although state and nonstate theorists may call it by a different name, both can agree that the basic issue is to explore the condition and forms of suggestion that can facilitate what has been traditionally known as "hypnotic phenomena." This paper is a first-stage clinical and logical effort to isolate and define a number of the indirect forms of suggestion that can facilitate such hypnotic phenomena. It is essentially a contribution to the science of pragmatics: the relations between signs and the users of signs (Morris, 1938).

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# Possible Detrimental Effects Of Experimental Hypnosis

Milton H. Erickson

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Since the time of Mesmer there has been a general attitude of prejudice against, and fear of, hypnosis. Mesmer's own attitude did much to clothe the phenomenon in mystery and occultism and to awaken strong criticism against his discovery. The absurd claims made and the fantastic explanations given contributed to the development of scientific antagonism to the art. Further the later utilization of hypnotism by charlatans made every honest man extremely wary lest even his sincere interest in it bring him into disrepute.

Fortunately, however, not all true scientists were frightened by the bugbear of public misunderstanding, and such men as Charcot, Liebault, Heidenhein, Janet, James, Hall, Prince, and Sidis have contributed greatly to a present rational attitude on the subject. As a result there is a growing realization among the general public, both lay and professional, that it is a normal phenomenon of the human mind, fairly explicable, as are all other psychological processes, in our crude concepts of mental mechanisms. Further, there is a rapidly increasing realization, as well as a somewhat slower development of its usefulness in the therapeutic field. In the latter regard there is still tendency to expect extravagant therapeutic results and, if they are not forthcoming, to discard the method as of little or no value. As is obvious, such utilization is wrong, since hypnosis, like every other psychotherapeutic procedure, should be looked upon as a means of approach to the problem and not as the royal road to the achievement of miracles.

As yet present limitations upon the knowledge and understanding of hypnotism itself suggest that its greatest value lies in the field of psychological investigation and experimentation. Its use in psychotherapy is essentially empirical. No really rational use of it can be made until psychologists and specially trained investigators capable of plumbing the depths of ignorance surrounding it and properly evaluating the psychological principles upon which it is based have explored it as a problem complete in itself. As a fertile field for investigation its intrinsic value cannot be questioned. Whether or not the eventual findings will be of immediate and positive profit is entirely speculative and quite beside the question, since every realm of human activity and behavior is worthy of scientific examination.

This observation then gives rise to the question, at what cost such a study could be made. If only at the expense of labor and study, well enough, but if hypnosis wreaks irreparable harm upon innocent subjects, it is time to call a halt and to devise other means of psychic exploration. The pathway of knowledge is already sufficiently strewn with costly human errors, and it is always well to consider avoidance of more, however innocently and unintentionally they may be made.

A survey of the critical literature suggests that hypnotism is fraught with dangers, if mere opinions and ignorance can be given weight. But perusal of the various literary damnations of the phenomenon awakens serious distrust of their cogency. In one bitter attack on hypnotism published about 1850 (the identification of the reference has been lost) the author naively declares, "I thank God I have neither witnessed nor practiced the abominable art," following which, in dogmatic statements, he attributed innumerable evils to "The New Witchcraft." Then in more recent times the practice of hypnotism has been considered synonymous with the enslavement of the personality, the destruction of the willpower, and the automatizing of the innocent subject. The attacks consist of personal opinions founded on abstract concepts no longer tenable, and supported by hearsay evidence. In brief, the literature is barren of anything deserving of much scientific credence. Even as late as 1924 a well-known journal of forensic medicine contained a long editorial emphatically denouncing hypnosis, adducing reasons therefore from innumerable opinions of laypeople and considerable hearsay evidence. No references of scientific value were offered except the editor's own subjective opinion based upon, some experience and founded upon the concepts of faculty psychology extant 40 years ago. This same editor now has a book in press on forensic medicine that, he assures the writer, embodies the same views, many of which are the same as those first advanced against Mesmer when the term "Black Magic" was supposed to classify hypnotism adequately.

Other than these unfounded denunciations, the literature contains only sincere speculations upon possible detrimental effects, some of which are partially founded on actual evidence and experience but none of which are dogmatic nor, for that matter, carefully controlled and evaluated. Even the literature on experimental hypnosis is most unsatisfactory, since practically none of the experimental work published has been carefully planned and controlled. Findings are empirical in nature and are indicative only of possibilities. The same holds true in the psychotherapeutic aspects, with the result that the whole field is considerably uncultivated in character. Accordingly there can be no room for any dogmatic declarations, except the need of caution and of honest observation.

The question of possible harmful effects from hypnosis is one worthy of serious consideration, fully as much so as the possibility of beneficial results. Fortunately it is no longer necessary to consider such things as "the emanation of the secret power," "the control of a weak will by an overpoweringly strong will," "the irresistible transmission of thoughts," and similar exploded superstitions. In the light of present-day knowledge hypnotism is looked upon in intelligent circles as a normal though unusual and little understood phenomenon of the human mind, dependent wholly upon the cooperation of the subject, and which can be practiced by anybody willing to learn the psychological principles and technique involved.

But there are certain theoretical possibilities of harm which should be considered and studied even though in the writer's experience findings in these regards are negative. It is true that these possibilities are entirely speculative and problematical, but a reasonable

answer must be given before there can be a ready acceptance of this method of scientific investigation.

The first of these theories of possible detrimental effects centers around the question of the development of hypersuggestibility. The literature is barren of information in this regard. However, there is carefully planned and controlled work under way in a well-known psychological laboratory, and results so far, though not yet complete, are negative. In the writer's own experience, upon which it unfortunately will be necessary to a large extent to base the elaboration of these various questions, hypersuggestibility was not noticed, although the list of individual subjects totals approximately 300 and the number of trances several thousand. Further, a considerable number were hypnotized from 300 to 500 times each over a period of years. Also several of the subjects were immediate relatives with consequent intimate daily contact, and they were trained to respond, in experimentation, quickly and readily to the slightest suggestion. Far from making them hypersuggestible, it was found necessary to deal very gingerly with them to keep from losing their cooperation, and it was often felt that they developed a compensatory negativism toward the hypnotist to offset any increased suggestibility. Subjects trained to go into a deep trance instantly at the snap of a finger would successfully resist when unwilling or more interested in other projects. Even when persuaded to give their consent against their original wishes, the induction of a trance was impossible. Nor were those subjects more suggestible to other people, since, when their services were "loaned" to the author's colleagues, the production of hypnosis in them, despite their extensive training, was just as hard as it had been originally for the author. And the same thing was found true when the author "borrowed" subjects. In brief, it seems probable that if there is a development of increased suggestibility, it is negligible in extent.

A second question is that concerning the possibility of the alteration of personality. Just exactly what such a question means is difficult to define, but at all events the general significance of the question is comprehensible. As we all know, alterations of personality occur in response to suggestion in ordinary daily life. Hence it is only logical to presume that a state of enhanced suggestibility such as an hypnotic trance would show an increased susceptibility to alteration of personality. In the writer's experience, where members of the family were very frequently hypnotized over a period of four years, no alteration in personality was noted in any way attributable to hypnosis. The same thing was observed in the case of friends who were utilized as subjects over a similar length of time, and likewise with subjects met in the laboratory. But an even more forceful and trenchant answer may be derived from the experience of psychotherapists who have deliberately and carefully utilized the method to induce desired alterations in the personality of their patients with disappointing results and usually failed even when such was the goal of their efforts. The inefficiency of hypnosis in the treatment of homosexuality is an excellent illustration of the difficulties of fundamentally altering a personality. Briefly, then, it seems that the conclusion may be drawn justifiably that experimental hypnosis will not cause any fundamental alteration of personality or possibly even any alteration in addition to that which would accrue from ordinary personal contact. However, before this question can be left, there arises another concerning the charge that various dissociated personalities were created by the

overzealous investigations of the hypnotist. Obviously there can be no dogmatic answer to such a charge, since the whole thing itself is a matter of speculation. That it is a possibility is to be admitted readily, but personal experience suggests that just as readily may it be characterized as an improbability. The one conclusion to be drawn is that the operator should be clear of vision and mind and of unimpeachable integrity, qualifications not to be limited to any one field of research.

During the induction of a trance the subject's contact with reality is greatly reduced. This gives rise to the question of the possibility of weakening the subject's perceptual powers concerning reality and unreality. An eminent practitioner in the field of behavior disorders reports that he utilized hypnotism as a therapeutic agent over a brief period of years, following his cases carefully, and discontinuing it because of a subjective feeling that they had lost somewhat the ability to distinguish between actuality and fantasy. But he added very honestly that this feeling was entirely subjective and that he could not offer any real evidence. When it is considered that his cases were behavior problems and presumably of unstable personality, and that the hypnosis was used for therapeutic purposes, it seems reasonable that such might have occurred. But before any great weight could be placed upon his subjective impressions, there would have to be a careful evaluation of the many significant factors concerned. At best it is only a subjective opinion and serves only to contradict the writer's, which is entirely to the contrary but based more on experimental studies than on therapeutic work.

Also in this same regard may be mentioned the religion of the Christian Scientists, which is based fundamentally on the principles of self-hypnosis, and of which the entire philosophy of life centers around a denial of the difference between reality and unreality. However, even the most ardent, despite the honesty and sincerity of their wishes and practice, seem to have no difficulty in this regard, as the material prosperity of the church and its members attests. If an entire philosophy of life with training from infancy upward is insufficient to accomplish this, it is difficult to believe that a time-limited hypnotic trance for other purposes would accomplish such an end. From a purely psychological point of view, the stimuli emanating from reality and those from memory traces within the brain are fundamentally different in their components, and it smacks of the miraculous to assume that a time-limited procedure could establish a fundamental alteration of the psychological habits established in a lifetime.

Fourth and last of the questions to be discussed in this paper is the probability of subjects acquiring unhealthy escape mechanisms as a result of their experiences. This speculation arises from the observation of a trick one of the author's subjects developed. He was a university student, "majoring" in psychology and "minoring" in art, and intensely interested in hypnotism. When given an art assignment of an original picture, having been taught how, he would take a crystal and crystal gaze until he saw a suitable picture, which he would then copy. Or if it were an English theme assignment, he would crystal gaze until he saw a typewritten outline of a suitable plot and then would fill in the necessary details. The question arises, could he make use of a similar type of mental mechanism to force himself to believe that some unpleasant duty was done or to escape some unpleasant situation? Or could the subject taught to show hypnotic paralysis or

anaesthesia later develop the same things as hysterical symptoms? However, the history of psychopathology is replete with evidence to show that the human mind, however lacking it may be in fundamental endowments needs little instruction in devising complex escape mechanisms. Hence it is much more reasonable though less disturbing to suppose that the added knowledge subjects derive from hypnotic experiences gives them an increased understanding of themselves. In the author's experiences there was noticed only a tendency to utilize hypnotic experiences for profit, a finding substantiated by inquiry into the experience of other trained workers. Briefly, what little evidence there is and an attempt at a fair evaluation of theoretical possibilities suggests small likelihood of detrimental effects in this regard.

In summary, then, the literature offers little credible information concerning possible detrimental effects of experimental hypnosis, although replete with dogmatic and opinionated denunciations founded on outworn and untenable concepts of the phenomenon.

Theoretical possibilities of detrimental effects that are possible include the development of hypersuggestibility, the alteration of personality, weakening of the subject's perceptual powers in regard to reality and unreality, and lastly, the development of unhealthy mental attitudes and escape mechanisms.

The literature is barren of controlled experimental investigation of these problems. The author's own experience, based upon several thousand trances on approximately 300 individual subjects, some of whom were hypnotized at least 500 times each over a period of four to six years, reveals no evidence of such harmful effects. This clinical finding is further substantiated by the well-known difficulties encountered in the deliberate therapeutic attempts to occasion desired changes in the personality. Accordingly, marked changes from experimental hypnosis appear questionable.

# An Experimental Investigation of the Possible Antisocial Use of Hypnosis

Milton H. Erickson

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The possibility of the misuse of hypnosis for antisocial or criminal purposes constitutes a most controversial question, not only for the layman but also for the psychologist, the physician, and the psychiatrist interested in its study, its nature, and its uses and applications. To settle this question is difficult, since it involves three inseparable factors of unknown potentialities—specifically, the hypnotist as a person, the subject as a person, and hypnosis as such, to say nothing of the significant influence upon these three, both individually and collectively, of the suggestion and the performance of a questionable act. We know that it is possible, without recourse to hypnosis, for one person to induce another to commit a wrong, a fact we may explain loosely as the influence of one personality upon another. Hence the question arises, "Can hypnosis, as a form of influence of one personality upon another, be utilized for wrongdoing?" Actually, however, the problem is not this simple, since in any hypnotic situation there exists not only the hypnotic relationship, but also interpersonal relationships entirely apart from the hypnotic, however intimately these various relationships are bound together in a single situation.

Hence any experimental approach to the question requires an emphasis upon one another of the significant factors to determine its intrinsic importance. In this paper an effort will be made to emphasize primarily the hypnotic elements and thus to determine how much hypnotic suggestion itself can accomplish in inducing wrong behavior.

Recently Rowland (1939) has made inquiry into the general hypnotic literature on the question of the possibility of inducing hypnotic subjects to perform harmful or objectionable acts, and has found that Hollander, Loewenfeld, Schilder, and Young were essentially agreed that there was little likelihood, if any, of such a possibility.

He then devised two experiments to discover if deeply hypnotized subjects could be induced to expose themselves to danger or to try to harm others. The one experiment consisted of having the subjects pick up a rattlesnake, variously described to them as a rubber hose and as a snake, lying in a carefully constructed box, the front of which was made of invisible glass and gave the impression of being open. The second experiment consisted of having the subject throw fluid he knew to be acid at the experimenter's face, which was protected in an unnoticeable way by invisible glass. Three of four subjects did as asked in the first experiment, and both subjects used in the second experiment did as instructed, while 42 persons in the waking state could not be induced to attempt the performance of the first experiment. The author presents these data as evidence of the possible misuse of hypnosis and offers as a possible explanation of the results a brief

statement to the effect that the subjects' confidence in the hypnotist might have caused them to forego their better judgment. In addition the author emphasizes the need to reexamine the entire question of the possible misuse of hypnosis.

That these experimental findings are valid as to their apparent significance is to be questioned, for the reason of the serious oversight, except for slight hints summarized in the tentative explanation offered for the results, of the definite and highly important subject-hypnotist relationship of trust and confidence, which could account fully for the findings. Particularly does this seem true for the situation in which these experiments were performed, aside from the consideration of the possible discovery by the subjects of the actual protection against harm afforded by the experimental apparatus. In this connection Schilder and Kauders have made an excellent survey of the literature and offer, in relation to various aspects of the entire problem of the misuse of hypnosis, a wealth of general opinions based upon their own experience and that of others. They declare, "But we must not forget that the hypnotized person is always aware of the general situation, that he is conscious of the fact that an experiment is being made on him, and that he must be well aware that the hypnotizer is not inducing him to commit an actual murder, if the hypnotizer is a man of respected social position" (Schilder & Kauders, 1927, p. 52).

Furthermore it is doubtful if any definite answer to the general question can be obtained *except by an experimental situation in which the suggested antisocial act really can become an accomplished fact, obviously and unmistakably so, and without the protection afforded by a falsified situation which can serve only to vitiate or negate the experimental procedure for both subject and investigator.*

While some recognition has been given to various aspects of this entire problem, a general survey of the literature discloses no systematic, comprehensive experimental study of the question, and also that the available information tends to be limited either to general statements based upon the personal experience of reliable investigators or to reports centering around limited experimental situations of rather extreme character—Rowland's study, for instance—without sufficient attention being given to the highly important factors of trust and confidence in the experimenter, the subject's probable realization of the actual use of concealed protective measures, and the general tendency, emphasized so strongly by Schilder and Kauders, for subjects to look upon any hypnotic situation as essentially an experimental procedure, particularly so in any formal laboratory setting.

## **GENERAL COMMENTS ON EXPERIMENTAL PURPOSES AND PROCEDURES AND ON THE SUBJECTS AND THEIR IMMEDIATE REACTIONS TO THE EXPERIMENTS**

In this paper it is proposed to report a series of experiments, performed over a period of years, bearing upon this important problem of the misuse of hypnosis, in which an earnest effort was made to avoid the difficulties involved in experimental settings as such and to meet the absolute need for realism. To achieve these ends informal situations for the most

part were utilized, and acts of an extreme nature were avoided. Instead definitely objectionable acts of a relatively minor antisocial character were employed, since such acts could reasonably be made to serve the investigative purposes and to yield significant, informative, and indicative data.

The actual experimental procedure was in general simple in character, and consisted chiefly of seizing upon favorable opportunities and situations to suggest hypnotically some form of objectionable behavior, sometimes directly, sometimes indirectly. For some of the more complicated and difficult experiments an elaborate technique of suggestion was evolved in which extensive allowance was made for the subject's personality. In all instances every effort was made to induce either an actual performance or an approximation of the suggested act, so that, whatever the degree of the experimenter's responsibility and guilt or the extent of possible protective measures, there would still be *the inescapable fact of the subject's own participation in an undesirable performance directed either against himself or against others*. Also, whenever possible, control experiments were made in an effort to secure similar behavior in the waking state.

Practically all of the experimental procedures cited were repeated on several subjects, but only the more informative and representative examples are given, although it may be added that the instances omitted actually confirm those cited and that the findings were essentially the same for all types of subjects. No attempt will be made, because of the large number of experiments, to give all the experimental details; rather, a concise summary will be offered except in those instances where the subject's behavior is peculiarly informative.

The material to be presented is based upon the findings obtained from approximately 50 subjects selected from a total of more than 75. Among these subjects were children and adults, normal persons and some who had recovered from psychotic episodes, and they ranged in intelligence from feeble-mindedness to the superior adult level, but the majority were either college students or graduates. They were all well known to the hypnotist, many had been utilized repeatedly for other hypnotic work, and all were well trained to accept any type of suggestion and to develop profound somnambulistic trances, as well as complete amnesias for all trance experiences.

However, despite their well-established trust and confidence in the experimenter, almost invariably the experimentation reported here caused them to develop intense resentments and antagonisms toward him. Only their realization, subsequently, of the scientific purposes of the work, aside from their general understanding of the hypnotist and the high degree of trust and confidence they had in his official position, served to effect a resolution of their resentments. Even then there were some who thereafter limited any further participation in hypnotic experiments to strictly impersonal procedures.

Another important fact concerning their anger and resentment was that the subjects tended to develop and manifest much more intense feeling at the hypnotic level of awareness than at the conscious, waking level. *Many of the subjects in the waking state readily and easily forgave the experimenter, when informed of the situation, only to*

*manifest in the trance state a full continuance of their anger.* Also, the emotions of the hypnotic trance, despite the general state of suggestibility and the actual existence of a favorable waking attitude, were much more difficult to deal with than those of the ordinary waking state. Rarely did the subjects show equal degrees of resentment in both the waking and hypnotic states, and still more rarely was the waking displeasure greater than the trance emotion. Also it is of interest to note that certain of the subjects actually inflicted punishment and humiliation upon the experimenter in retaliation for his objectionable commands, the possibility of which has been noted by Schilder and Kauders (1927, p. 52).

### **INQUIRY INTO GENERAL POSTEXPERIMENTAL ATTITUDES, OPINIONS, AND REACTIONS OF THE SUBJECTS**

Before proceeding to the actual experiments, it may be desirable to present the results of post-experimental inquiries to serve as a general background for an understanding of the experimental findings. Exceptions to these general statements will be found in the individual experimental accounts.

In this connection, *before the subjects had been given any recollection of their hypnotic experiences*, and as a post-experimental measure, since previous experience had shown that such inquiries tend to make subjects suspicious and hesitant about participation in hypnotic work, inquiry disclosed that approximately 40 percent of the subjects employed believed that they could be induced in the trance state to perform objectionable acts of a definitely minor character, if the acts were directed primarily against themselves, and that among these were many who had rejected such suggestions unconditionally with no attempt made either to evade the demands placed upon them or to alter the performance so as to render it unobjectionable. About 50 percent were most emphatic in denying such a possibility, and in this group largely were those who had seized upon the opportunity offered by the antisocial suggestions to inflict punishment upon the experimenter, while the remainder tended to be, on the whole, rather doubtful. All, however, were emphatic in denying the possibility of being induced hypnotically to commit antisocial acts of a major character.

Following this, despite the consistent failure to experimentally induce antisocial behavior of a genuine or effective character, certain of the subjects were given a full recollection of *only their actual experimental behavior*, and inquiry disclosed that many were emphatic in their declaration that only their trust and confidence in the experimenter could account for their submission to the experimental procedures, aside from the question of accepting and possibly acting upon the suggestions. Others declared that they must have been confident at the time that protective measures were actually in force and that "things were really different than they seemed." Still others explained that they must have had a general realization that the author probably had secret legitimate purposes behind his requests, which made it possible for them to accept suggestions out of the question under any other circumstances. A few explained that they had probably been willing to do whatever was asked because they regarded the situation as having legitimate scientific implications, but that even so they must have found the requests to be "impossible"

because of the violation of their personal code. And some others offered only the naive explanation, "Well, that just goes to show you how I really would act."

When instructed further to recall their *feelings and attitudes when given the objectionable task*, as well as their actual behavior, the results were essentially a confirmation of their previous statements and gave the impression of being a confusion of their immediate and of their retrospective understandings.

The remainder of the subjects were instructed to recall as a single task *both their feelings and their behavior of the trance state*, but, probably because the experimental situation demanded action rather than reflection, little that was informative could be obtained, except for statements of feelings of anger, resentment, hesitation, negativism, and unwillingness, and any elaboration of these statements was made in terms of their immediate understandings. It did not seem possible for them to differentiate between their understandings of how they felt at the time of the experiment and at the time of the post-experimental questioning.

Inquiry about the possibility of being induced to commit some seriously dangerous or culpable act because of implicit trust in the hypnotist and a certainty that there were adequate protective measures elicited the significant reply that hypnotic suggestion did not and, as they knew from personal experience, could not render the subject an obedient, unthinking automaton, as, in their opinion, the experimenter had discovered adequately. Also, they emphasized that invariably they scrutinized carefully every suggestion offered, primarily as a measure of understanding it fully to permit complete obedience and not for the purpose of taking exception to it, and that if they were at all uncertain of it, their hypnotic state would force them to await either more adequate instruction or a better understanding by a direct, thoughtful, and critical consideration of the command.

They added that this tendency would be all the more marked in the case of unusual or potentially dangerous suggestions and situations.

Inquiry about the possibility of being manipulated unfavorably or skillfully tricked by an unscrupulous hypnotist who had won their full confidence, disclosed the common belief that they could be deceived to a certain degree but not seriously, probably less so than in the waking state, because of the reasons given above and because the limitations of the hypnotic trance would constitute a protection in itself, since it is limited in time and situation and restricts so markedly environmental contact, and hence would preclude the dangers of overconfidence likely to obtain in the waking state.

In addition inquiry on these points among a large number of experienced subjects not used in this type of experimentation disclosed their beliefs to be identical with those given above, and they also declared that a successful deception by an unscrupulous hypnotist would have to be one more readily achieved in the waking state, and then that it would not be a function of the hypnotic condition, but rather that the hypnosis would be, as Schilder and Kauders remark, nothing more than "a particularly noneffective technical auxiliary" (1927, p. 54) for inducing antisocial behavior.

## **EXPERIMENTAL FINDINGS**

In presenting the experimental findings, an effort has been made to select material from as many different subjects as possible and to classify and group the various accounts in accord with their primary significance. However, many of the reports illustrate several points, as will become apparent to the reader. Also, while written as single accounts, the reader will note many instances in which the account is a summary of experiments and variations of those experiments upon a number of subjects.

No attempt will be made to offer a general discussion of all the material, since for the most part the reports are relatively clear. Rather, brief comments, wherever pertinent, will be made in direct relationship either to the individual experiment or to types of experiments, and these comments will be limited to the general problem of this paper, although the reader may repeatedly observe experimental illustrations of various dynamisms of behavior.

Finally, to avoid needless repetition of the fact, the statement may be made that except where specifically stated otherwise, *all the subjects were in profound somnambulistic hypnotic trances, and profound amnesias were developed in each of them for all trance experiences until the purposes of the experimentation warranted their waking recollection of all or part of the trance events.* Thus experimentation in the waking state could follow hypnotic experimentation without the subject's conscious awareness that it constituted a repetition of a previous experiment, and in some instances amnesias were produced for waking events to permit repetitions of waking acts.

## **EXPERIMENTAL ACCOUNTS**

### **Experiments Involving Physical or Mental Injury to the Self**

**Account 1:** The subject was shown hand electrodes, and the flow of current was demonstrated by the experimenter's receiving a shock obviously disagreeable and violent in effects. He was then instructed emphatically and insistently to experience the same shock. This he refused, explaining that the experimenter's own discomfort and violent muscular reactions had satisfied all his curiosity about it. An attempt to compel or force him into obedience failed, although he did make several tentative attempts to pick up the electrodes. Finally, after much insistence by the experimenter, the subject became antagonistic and rejected the whole procedure as foolish and unnecessary.

Subsequently, with the subject in the waking state, the experimenter repeated the entire performance, but the subject still refused to receive a shock, giving essentially his trance explanation. Finally he consented to take a lesser shock, when casually shown the use of a resistance coil. He demanded, however, that the experimenter prove the lessening of the current by receiving another shock. After he had experienced a mild shock, an attempt

was made to induce him, still in the waking state, to permit a strengthening of the current. This he refused.

Again hypnotized and the original procedure repeated, he agreed to receive a mild shock, but insisted upon a preliminary demonstration of its mildness, checking additionally on the adjustment of the resistance coil. Argument that the experimenter's own performance demonstrated the harmlessness of the entire procedure elicited the explanation that nothing worthwhile could be accomplished by such self-punishment and that a mild shock was sufficiently unpleasant to warrant no further experimentation.

**Account 2:** The subject was told to develop an anaesthesia of his hand and then to prove it by holding a lighted match underneath his index finger. Ordinarily hypnotic subjects will refuse unconditionally to permit a testing of a hypnotically induced anaesthesia by measures they regard as too injurious or destructive. This subject, however, readily did as asked, holding the lighted match to his finger until he smelled the odor of burning flesh. Commenting on this, he threw the match aside and asked irritably if the experimenter thought his purposes warranted such results. When answered in the affirmative, the subject replied that such had been his opinion. He then asked that the experimenter awaken him and give him a full conscious recollection of the incident.

Several days later, in the waking state, he discussed his experience with fellow medical students, emphasizing his loss of pain sensation. One of the students asked him if he could develop an anaesthesia spontaneously. Becoming interested in this, the subject began making suggestions to himself that his hand would again become anaesthetic, finally testing the self-induced anaesthesia with a lighted match. The other students declared that he was probably willfully enduring pain to uphold his argument. In answer he attempted unsuccessfully to control his pain reactions to a lighted match applied to his nonanaesthetic hand.

On another occasion the subject in the waking state became interested in the ability of psychotic patients to endure pain in smoking a cigarette to the last puff and proceeded to duplicate the performance, willingly enduring a severe burn on his lips as a result, thereby illustrating his behavior when the question of hypnosis was not involved, either directly or indirectly.

**Account 3:** The subject, a 12-year-old girl, was given suggestions to the effect that a certain box was actually a hot stove. She accepted these suggestions and, upon request, sat upon the illusory hot stove, squirming, twisting, and protesting that she was being burned, and begging to be allowed to get off. All of her behavior was fully suggestive of the reality of the experience to her.

Two weeks later the experiment was repeated, with the modification that on this occasion extremely careful suggestions were given to effect a realistic illusion of the selected box as a hot stove. This achieved, she could not be induced to sit on it. Yet, when another box was simply described as a hot stove and she was told to sit on it, she promptly did so,

repeating her behavior of the original experiment. Nevertheless she could not be induced to sit upon the more realistic illusory hot stove.

On another occasion an attempt was made to induce this same subject to sit upon an actual hot stove. She obeyed the request by mistaking another article of furniture for that stove and sitting upon it instead, giving every evidence of discomfort and distress. No amount of effort could make her approach the real stove, even when protective measures were provided that could be recognized by the subject.

As a variation, using this subject and a number of others to permit adequate control of each step of the procedure, an attempt was made to induce the placing of the hand on a hot stove, first casually and then later effectively described as being cold. Only an approximate performance could be secured, that of holding the hand briefly an inch or so above the stove and declaring that it was actually in contact with the stove. The induction of an anaesthesia in the chosen hand led to a preliminary testing with the nonanaesthetic hand and resentment over the attempted deception. When, by careful suggestion, the subject was deprived of all self-protective measures, an unconditional refusal resulted.

**Account 4:** During some experimentation on crystal gazing, a subject was told, by chance, to visualize the most important event of the year 1925, as a measure of keeping her busy while the experimenter directed his attention elsewhere. Promptly, as the crystal images began to develop, the subject began to manifest extreme emotional distress, and there occurred a marked loss of rapport with the experimenter. With difficulty hypnotic contact was reestablished with her and sufficient information elicited to disclose that she had visualized an occurrence of marked psychic traumatic significance. Thereafter it was necessary to reassure this subject about hypnosis, and she could not be induced to do crystal gazing unless first instructed firmly to see only pleasant, happy scenes, and this demand continued to be made even after she had spontaneously requested from the experimenter a psychotherapeutic review of her unhappy experience.

Since this incident the experimenter has had many similar experiences, especially with patients seeking psychotherapy, but also with subjects employed only for experimental or demonstration purposes.

**Comment:** These four accounts illustrate clearly that hypnotic subjects are not blindly obedient automatons, that they possess a good critical ability, and a full capacity for self-protection, both in the immediate sense and in relation to the future. In addition the need to know what subjects will do in the ordinary waking state, and the profound need for realism in the experimental situation, are clearly shown. Also one needs only a few such experiences as given in the last account to realize how easily good hypnotic subjects or patients may be lost by having them face a painful experience too precipitately.

## Involving Damage or Loss of Personal Property

**Account 5:** This subject smoked secretly but knew and did not object to the fact that the experimenter was aware of her habit. One day, when she was in his office, noting that she had with her a gift handkerchief which she prized highly, the experimenter hypnotized her and gave her a cigarette to smoke, counseling her earnestly that should someone happen to enter, she should keep secret her smoking by crumpling the cigarette in her handkerchief thus concealing the evidence. She was not receptive to the idea, explaining that such a procedure would burn her handkerchief, but it was argued insistently that that measure might well be kept in mind. However, she continued to smoke, not taking the suggestions seriously. Suddenly the experimenter summoned the occupant of the next office, but so maneuvered that while the visitor's back was toward the subject upon entrance, his discovery of her was imminent, thus confronting her with an immediate and compelling need to dispose of her cigarette by the method suggested. As the visitor entered, the subject flushed angrily, glanced at her handkerchief, made several tentative moves to follow the suggestions given her, then carefully and deliberately tucked the handkerchief into her sleeve and continued to smoke, despite the fact that she particularly did not want that visitor to know of her practice. When this reaction had been noted, the visitor was manipulated out of the office without a betrayal of her secret. Nevertheless, she gave the experimenter an angry scolding and criticized him harshly for his conduct and for his deliberate attempt to make her ruin her handkerchief, demanded to be awakened, threatened to awaken spontaneously if this were not done at once, and declared her intention of never again being hypnotized.

Only after she had been given a complete understanding of the situation was it possible to win back her confidence, and it was necessary to do this in both the hypnotic and the waking states, despite her waking amnesia for the experience.

**Account 6:** This subject possessed a prized book which had been greatly admired and often solicited by a friend as a gift, but only an implied promise that on some auspicious occasion it might be made a gift had been elicited. In a deep trance extensive systematic efforts were made to induce the subject to keep that implied promise, either at once or by a specified date, with even the privilege of naming the date, but the most that could be accomplished was a repetition of her waking promise—namely, that sometime the book might be made a gift. Approximately a year later the book was made a gift, but to another friend not mentioned in the trance, who also desired it greatly.

**Comment:** In Account 5 the subject was painfully and sharply trapped by the situation and apparently given no alternative except obedience to the urgent suggestions given her. Nevertheless she made a deliberate and painful choice of behavior in contradiction to the hypnotic commands, and despite the continuance of the trance state, she exercised fully her normal waking perogatives by denouncing the experimenter and depriving him of his control over the situation, emphasizing the latter by compelling a justification at both the hypnotic and the waking levels of awareness.

In the next account, although the general idea suggested was entirely acceptable, the subject could not be induced to act upon it except under conditions and circumstances to

be self-decided in the waking state. The final outcome suggests an actual defeating of the hypnotic suggestions.

## **Giving of Adverse Information About Oneself**

**Account 7:** While engaged in mischief, a young man injured himself seriously, necessitating surgical intervention. Before full treatment could be administered efficiently, it was necessary to know the exact nature and method of his accident. Questioning at length by the experimenter's colleagues elicited an obviously false and misleading story because of the embarrassing and humiliating character of the injury, nor could the emergency of this situation be impressed upon him sufficiently to induce him to tell the truth. Accordingly the experimenter was asked to hypnotize him, since he was one of the experimenter's well-trained subjects, and thus to secure the essential information. The subject went into a deep trance readily enough, but persisted in telling the same false story as he had in the waking state, despite instruction about the seriousness of the situation. Finally, when the experimenter refused to accept his story, the patient offered the argument that the experimenter was a doctor and really ought to understand. Accepting this contention, the experimenter instructed him, while still in the trance state, to listen carefully to the experimenter's understanding of the probable course of events and to correct any misstatements. In this indirect and unsatisfactory way sufficient correct information was reluctantly and incompletely yielded to permit proper treatment, although the persistence in a general misstatement of facts continued.

Even after recovery the subject persisted in his false story in both waking and trance states, although he knew that the surgical intervention had disclosed the truth.

Nor is this case unusual, since similar behavior is frequently encountered in the therapy of neurotic conditions, even when the patient earnestly desires help. Likewise, with normal hypnotic subjects detected in a lie, a systematic and careful attempt to secure the truth in the trance state will frequently elicit only a stubborn persistence in the falsification unless a justification, adequate for the inquisition and satisfactory to the subject as a person, can be proved. Otherwise anger and resentment, concealed or open, is likely to develop, together with loss of trust, confidence, and hypnotic services. This situation is difficult to alter by any straightforward objective explanation, since the highly subjective character of the situation renders objectivity difficult to achieve.

Nevertheless, under conditions where the subject's personality situation warrants it, hypnotic measures are exceedingly effective in eliciting adverse information about the self, and it frequently happens that the subject will disclose the truth unreservedly in the trance state, but in a most inexplicable fashion will persist in his right to a negation of the truth and absolute misstatements in the waking state.

**Comment:** Despite the shift of responsibility, the submissiveness of the hypnotic subject, the peculiar significance and strength of the hypnotist-subject relationship, and the tremendous and recognized importance of obeying the hypnotic commands, the actual

character and nature of the individual's waking patterns of behavior carried over into the trance situation. Apparently, from this and from general hypnotic therapeutic experience, the elicitation of adverse information about the self is a function not of hypnosis itself but rather of the total personality situation.

## Involving Violation of the Subjects' Moral or Conventional Codes

### *Inducing Subjects to Lie*

**Account 8:** Attempts were made to induce a number of subjects to tell deliberate lies to persons placed in rapport with them, the lies to cause both petty annoyance and marked inconvenience, or even definite difficulties. In all instances the efforts failed, although all of the subjects could be induced to tell "white lies," but even so they all reserved the privilege of correcting or nullifying the lie should it lead to even the slightest inconvenience for the victim. Thus one subject, induced to make a slip of the tongue in informing a friend about the hour set for a ride home from the office, nullified the act by an apparently casual waking decision to accompany that friend home.

However, it was found that if the subjects were given sufficient reason, they could be induced to promise to tell lies in the deep trance state of a character protective of themselves and of others, but marked limitation was placed by the subjects upon this willingness, and their lies were again restricted to those of an insignificant character when they were forced to act upon their promise. In addition they invariably reserved the privilege of correcting or nullifying their misstatements, and in all instances the lies were corrected subsequently, either directly or indirectly.

But of particular significance was the discovery that *when the subject could be induced to lie effectively, it was necessary for the subject to be in a trance state.* Despite every measure of technique it was found to be impossible to bridge the gap between the hypnotic and the waking levels of awareness to permit a meaningful waking reiteration of the lie.

Efforts made to induce lying in response to posthypnotic suggestions invariably led to unsatisfactory results—namely, the defeating of the purposes of falsification, even when the lies were of a protective character. Inquiries about this afterward in the trance state disclosed that the subjects objected strenuously to posthypnotic lying, and they explained that they preferred to work out another and truthful method of either dealing with the situation or evading it. Nor could any amount of suggestion alter their attitudes, since they argued that a waking knowledge of the desired behavior would actually aid them because of increased contact with the environment, if there were a justification for the lying.

In those instances where they were induced to tell lies posthypnotic ally with some degree of success the results were totally unsatisfactory, since each of the subjects performed his task in a compulsive and inadequate fashion, rendering the falsity of his statement at once apparent. An adequate explanation of the failure of lying as a

posthypnotic performance may be found in the peculiarities of posthypnotic behavior as such, which does not come within the scope of this paper.

**Comment:** As shown in previous accounts, subjects can tell lies while in the trance state for reasons of their own, but apparently the situation becomes totally different when the hypnotist tries to induce them to tell lies in the trance state. In such case, apart from the conflict aroused by the violation of the subject's personal code by the attempt to induce lying and the self-protective reactions engendered by this, the separateness of hypnotic and waking levels of awareness apparently renders lying in the trance state, however successful in a limited sense, only an alien intrusion into waking patterns of behavior to be rejected at the earliest opportunity. One is at once impressed by the significant bearing of the above findings upon the generally recognized folly of dealing only with a single limited aspect of the total personality.

In such procedures as the above one is only setting, under the time- and situation-limited circumstances of the hypnotic trance, a restricted aspect of the personality at variance with another and more dominant aspect, and asking that lesser aspect, contrary to its nature and habit, to act directly in the field of conscious awareness—an impossible task, apparently, to judge from the experimental findings.

#### *Inducing the Drinking of Liquor*

**Account 9:** A subject known to have scruples against drinking liquor was urged to take a cocktail. Every suggestion to this effect failed, although she did explain under pressure that she might do so if she were awake. When it was argued plausibly that the entire purpose was to have her take the drink in the hypnotic state to see if she could detect having done so after awakening, she failed to be convinced of the desirability of the act.

After awakening, however, she was persuaded by renewed argument to taste the cocktail, but she declared that it was distasteful and pleaded to be excused from the task, explaining that she would, despite personal objections, drink the rest of it if to do so were really necessary. She was promptly hypnotized and informed most urgently that it was highly essential for her to finish the cocktail. She refused to do so unless she were awakened, arguing that if drinking the cocktail were really important, it would be better for her to drink it in the waking rather than in the hypnotic state.

Similarly an attempt to induce intoxication failed completely in a subject who drank moderately and who objected strenuously to intoxication, despite an admitted strong personal desire to experience such a state. The explanation offered by this subject for his absolute refusal to take more than the customary amount of liquor was simply that to become intoxicated would be strictly a matter of personal interest and desire, possible of satisfactory achievement only in the waking state, and that the experimenter's interest in intoxication during the trance state was of no moment or pertinence.

On the other hand a subject who had previously been intoxicated in the waking state and who desired the additional experience of becoming intoxicated while in the trance state, just as unequivocally refused to take a single drink until he had first been hypnotized.

**Comment:** Apparently the need to satisfy the wishes of the total personality and the need to participate as a total personality in an objectionable, questionable, or special performance takes entire precedence over the wishes and commands of the hypnotist.

## **Violation of Personal Privacy**

### *Physical Examinations*

**Account 10:** Several of the author's sisters, as has been mentioned briefly elsewhere, (Erickson, 1934) were hypnotized separately and instructed that they were to be given a complete physical examination in the presence of their mother, for which they were to undress completely. Each refused unconditionally. An explanation was requested, and they responded by declaring that even though the experimenter was their brother and a doctor, they did not think it fitting for him to make such a request, and no measure of persuasion succeeded.

Subsequently, in the waking state, the same issue was raised with each of them, and each consented hesitantly to the request. Questioned upon rehypnotizing as to this apparent inconsistency in their attitudes, they explained that being examined when they were awake gave them a sense of better contact with the entire situation, but that in the trance state, being asleep, they felt that they would not know what was going on.

Similarly a hypnotic subject suffering from a painful pelvic condition came to the experimenter for examination. The suggestion was given her that she could be hypnotized and given a hypnotic anaesthesia which would relieve her of much pain and distress. She refused unconditionally, despite the presence of the attending nurse, until the promise was made to produce the anaesthesia as a posthypnotic phenomenon, so that she could be more satisfactorily in contact with reality during the entire time of the examination and treatment. Apparently the highly personal character of hypnosis in such a situation renders it less acceptable than a drug anaesthesia, as the experimenter has found on a number of occasions.

**Comment:** Whatever the strength and nature of the hypnotic relationship, it does not alter the sanctity of one's personal privacy. This belongs apparently to the waking state, upon which it depends for protection. Had a violation of the stipulation regarding the examination been attempted in Account 10, an awakening from the trance would have occurred, since an attempt at examination would have been equivalent to a cue to awaken. One may judge from the above that the process of being hypnotized is perceived by the subject as a peculiar alteration of his control over the self, necessitating compensatory measures in relationship to any occurrence seeming to imply a threat to the control of the self.

### *Giving Information of an Intimate Character*

**Account 11:** The subject was asked deliberately to disclose the name of the girl in whom he was most interested. This he did readily. Later, in the waking state, he asked for an account of all trance occurrences. Disclosure of the question about the girl's name

elicited violent anger, and he declared that his trust in the experimenter had been destroyed. When he was convinced by adequate proof that he had made the same disclosure some weeks previous in the waking state, a fact he had forgotten, his anger abated, but thereafter he refused to participate in hypnotic work except for strictly impersonal procedures, and any attempt to violate that condition, even indirectly, resulted in a prompt and angry awakening from the trance. Nor could this state of affairs be altered by careful hypnotic suggestion designed to correct his attitude.

In this same connection it is not an unusual experience in medical or psychiatric practice to have patients seeking any type of therapy, particularly psychotherapy, withhold or distort information bearing upon their problems because they feel the details of personal history to be of too intimate a character or too embarrassing to reveal, as has been noted above in Account 7. When recourse is had to hypnosis during the course of the therapy as a measure of securing information, the same tendency to withhold or to distort information is to be found, and this despite the fact that the patient may actually and urgently be seeking aid and has a clear realization that there is a legitimate reason for yielding the specific information. Usually, however, hypnotic questioning serves to elicit the information more readily than can be done in the waking state, but the entire process of overcoming the resistance and reluctance depends on the development of a good patient-physician relationship rather than upon hypnotic measures, and the hypnosis is essentially, in such situations, no more than a means by which the patient can give the information in a relatively comfortable fashion.

**Comment:** Although there had actually been no violation of personal privacy, the questioning was so construed in the waking state. Yet despite refutation this temporary misunderstanding permanently limited the extent of subsequent hypnotic work and precluded any alteration of the state of affairs by hypnotic suggestion. The relationship of these findings to unfortunate errors in psychotherapy is at once apparent.

#### *Exhibiting the Contents of One's Purse*

**Account 12:** On several occasions and under various circumstances female subjects were asked to exhibit the contents of their purses, and definite systematic attempts were made to build up in each a compulsion to do as requested. In each instance, however, the attempt failed, and the explanation was obtained repeatedly that they considered such a request an unwarranted intrusion upon their privacy.

When this procedure was repeated on them later in the waking state, one subject yielded sufficiently to exhibit a part of the contents, but the others regarded the request as unreasonable. When told that there were justifiable and legitimate reasons for the experimenter's seemingly rude request, they replied that whatever his scientific purposes might be, he would have to be satisfied by their refusal.

However, these same subjects in the waking state would not resist the experimenter's picking up their purses and examining the contents. Rather, they took sardonic pleasure in reducing the experimenter, by the implications of their manner, to the position of a prying busybody.

When a similar attempt was made to investigate their purses while they were in a second trance state, they resented and resisted it strenuously, nor could they be induced to account adequately for the inconsistencies of their waking and trance reactions.

This same general experimental request in relationship to the contents of their pockets was readily and even proudly acceded to in both waking and trance states by small boys and by little girls with purses. When, however, an attempt was made to induce adult male subjects to exhibit the contents of their purses, they reacted as did the female subjects, or else yielded to the request in such fashion as to humiliate the experimenter greatly.

**Comment:** A direct but inconsequential aggression upon the subjects' privacy was resisted even after it had been permitted in the waking state. One has the feeling that as a result of their hypnotic state they sensed a certain feeling of helplessness reflected in intensified self-protection, as has been noted in the comment on Account 10.

## Experiments Involving Harm to Others

### *Physical Harm to Others*

**Account 13:** Some college students had played the prank of feeding a large quantity of cathartic candy to an unpopular and greedy student, who was also openly disliked by the experimenter and his hypnotic subject. Sometime later this subject was given a package of cathartic gum and instructed to replace with it a similar but harmless package of gum in the unpopular student's desk, so that unwittingly he would again become ill. The subject refused unconditionally, stated that the student had already been made sick once, and that, while he would not mind a repetition of the prank, he preferred that the experimenter himself play the trick.

No amount of urging could induce the subject to change his mind, although it was discovered that he had been one of the original pranksters. Questioned about this, the subject explained that he had already satisfied his dislike fully, and hence that there was no need of repeating the prank. When the experimenter offered to do it, the subject looked on with obvious amusement, but he could not be induced to share in the performance, nor did he seem to have any realization or expectation that the experimenter would secretly correct this act. Yet at a later time this subject in the waking state did pass out cathartic gum to his unsuspecting friends.

**Account 14:** An explanation was given to a subject of the crude joke in which one inhales cigarette smoke deeply and then, professing to blow it out of his eyes to distract the victim's attention, dexterously burns the victim's hand.

The subject was urged to play this joke upon a suitable victim, and he was asked to go through a mock performance with the experimenter as a measure of ensuring a smooth enactment. Instead of a mock performance the subject deliberately burned the experimenter's hand. No comment was made on this, and a discussion was held as to the

proper victim, but one proposal after another was rejected. Finally the subject declared an absolute unwillingness to do it on anybody except the experimenter, explaining that a cigarette burn was a nasty, unpleasant thing, that there was no humor in the joke, and that the whole thing was not worth doing.

Inquiry subsequently disclosed that the subject felt justified in burning the experimenter's hand as a punishment for trying to take advantage of him, but that he did not feel that anybody else should be made a victim of so crude and painful a joke.

**Account 15:** As a practical joke it was suggested to a subject that a third person be induced to lift a box having metal handles which were actually electrodes connected with a source of current. The experimenter then demonstrated on himself the effect of the shock, which was definitely violent and disagreeable. However, the subject could not be induced to test the shock himself, and when an unsuspecting victim was secured, he refused to close the switch, despite his willingness and readiness to turn on the current when the experimenter was lifting the box. He explained his refusal on the grounds that the experimenter's full acquaintance with the apparatus and obvious willingness to take the shock justified his turning on the current, but that the unexpectedness of a violent shock for an unsuspecting victim would be a most questionable and unwise thing. Yet subsequently, in the waking state, he joined with his fellows in using this apparatus to shock unsuspecting victims. Even then he could not be induced to go through the performance in the trance state, declaring that to do so would be only a blind automatic performance lacking in any element of humor and that, at best, he would not be a participant but only an instrument, a role for which he had no liking.

**Account 16:** An exceedingly spoiled and pampered young woman had the unpleasant habit of slapping anyone who offended her even slightly. When she was in a deep trance state, an assistant was placed in rapport with her with secret instructions to make definitely offensive remarks to her. When he obeyed these instructions, she flushed angrily, turned to the experimenter, and declared that the assistant was probably acting in response to the experimenter's request and that, by rights, the experimenter should have his face slapped, and that his face would be slapped if the assistant continued to make disagreeable remarks.

An attempt was made to persuade her of the experimenter's innocence and also that regardless of his innocence or guilt, she ought to slap the assistant, since he really had free choice in the matter. She declared, however, that she preferred to do her slapping when she was awake and that unless the trance procedure were changed, she would awaken herself and would refuse to do any further hypnotic work, and it was found necessary to accede to her demands.

**Comment:** In these four accounts not only did the subjects resist suggestions for acts actually acceptable under ordinary waking conditions, but they carried over into the trance state the normal waking tendency to reject instrumentalization by another. However, acting on their own sense of responsibility, there was no hesitation about aggressive behavior directed against the experimenter, but apparently the submissiveness

of the trance state and the instrumentalization effected by the hypnotic suggestions of aggression against others rendered such suggested acts so impersonal and lacking in motivation as to be completely objectionable in the trance state.

*Verbally Abusing and Giving Adverse Information About Others*

**Account 17:** The subject was instructed to make a number of cutting, disagreeable remarks to a person strongly disliked by that subject and also to persons actually liked. However, she refused to perform either of these tasks in the trance state, declaring that she would not hurt her friends' feelings in any such fashion and explaining that if she said unpleasant things to people she disliked, she preferred to be awake so that she could enjoy their discomfiture.

When it was suggested that she make disagreeable remarks to disliked persons as a posthypnotic performance, she again refused, explaining that if she said unpleasant things, she wanted to be the one who originated them, and that it would be done only at her desire and at an opportunity that she selected, and not in response to the experimenter's request. Despite much urging, she could not be induced to alter her attitude.

Yet in an obviously experimental setting, where it was plain that everybody understood the total situation, this subject as well as many others (Erickson, 1939) was found entirely willing to accede to such requests and even to take advantage of the opportunity to say things more disagreeable than necessary, but to secure such a performance there is always a need for the protection afforded by a recognized experimental situation. However, even under obviously experimental conditions many subjects will refuse to accede to this type of request, explaining that they might inadvertently hurt someone's feelings.

**Comment:** While the suggestions themselves were not repugnant to the subject, the general situation was, and the subject reserved full rights and demanded the privilege of obeying only under conditions of full conscious awareness. Yet at a mere experimental level, where the purposes of the act are defeated by the nature of the setting, full obedience may be obtained. Again, resistance by the subject to instrumentalization is apparent.

**Account 18:** A subject known to be aware of certain unpleasant facts concerning an acquaintance whom she disliked greatly was questioned extensively in an effort to secure from her that information. She refused to relate it, even though previous to the trance she had on several occasions been on the verge of imparting that information to the experimenter and had been deliberately put off. She did explain that perhaps sometime when she was awake she might disclose the facts, but that she would not do so in the trance state. No manner of suggestion served to induce her to yield, even though the experimenter's secret knowledge of the entire matter permitted the asking of leading questions and the relating of a sufficient amount of detail to justify her fully in the feeling that she would betray little or nothing. After much pressure she finally expressed a willingness to tell after awakening, if the experimenter could convince her in the waking state of the legitimacy of his request. Her offer was accepted, but when the attempt was

made, she evaded the situation by a deliberate falsehood, which, if the experimenter had persisted in his inquiries, would have served to force him into a position where he would have had to embarrass and humiliate her by the exposure of her falsehood.

**Comment:** Not only did the subject resist the hypnotic commands, but also she withstood a situation which ordinarily in the waking state would lead to capitulation, and in addition she effected, at an unconscious level of thought, a contretemps precluding any further action by the experimenter. In this instance, at least, the subject was more capable of resisting the experimenter's commands in the trance state or by unconscious measures than she was in the waking state.

*Offenses Against Good Taste and the Privacy of Others*

**Account 19:** A subject was asked to tell risqué stories in a mixed group. This request he refused unconditionally. Subterfuges of seemingly hypnotizing the other members of the group and giving them instructions to become deaf failed to convince the subject of the reality of the performance. Finally suggestions were given him to the effect that the others present had left and that he was now alone with the experimenter and could tell the stories. The subject apparently accepted this suggestion of the absence of others but declared that there was something peculiar about the room, that there were inexplicable sounds to be detected, and he refused to accede to the request.

On a later occasion the subject was rendered hypnotically blind and taken into a room where others were quietly present. When asked to tell a risqué story, he explained that he could not because he was not confident of the nature of the situation.

On still another occasion he was rendered hypnotically blind and hypnotically deaf, with prearranged tactile cues calling for different types of behavior, among which was the relating of a certain objectionable story. Finally the signal for the story was given him, but the subject demanded that the experimenter assure him honestly, by a tactile cue which he specified, that there was nobody else in the room. Only then would he relate the story.

When an account of this was given to him later, with the implication that others might have been present, the subject remarked sardonically that any embarrassment deriving from the situation belonged solely to the experimenter and to any others present.

Comment: The need for realism in the actual situation, the capacity for self-protection in even a recognized experimental setting, and the ability to allocate responsibility is obvious.

**Account 20:** A subject was instructed to open her companion's pocketbook, to secure a cigarette, and to give it to the experimenter, this to be done with the full awareness of her companion but without express permission. She refused to do so despite urgent demands and angry insistence. Since these measures failed, she was given a posthypnotic suggestion to the effect that after awakening she would notice the experimenter fumbling with an empty cigarette package and that she would then openly abstract a cigarette from

her friend's purse. She agreed, but rather hesitantly. After awakening, the proper cue being given, she made several abortive attempts to obey the command and finally took refuge from the situation by lapsing back into the trance state, explaining that she "just couldn't do it, it wasn't nice, it wasn't proper, and it was too discourteous." It was pointed out to her immediately that the companion's full awareness of the situation and failure to manifest any objection rendered the request legitimate. Nevertheless she persisted in her refusal.

Subsequently she was awakened with a complete amnesia for the trance and the posthypnotic experience. During the course of a casual conversation the experimenter asked her for a cigarette. When she replied that she had none, he suggested that her companion had cigarettes, and this statement was confirmed by her friend. She was then asked if she would open her companion's purse and secure a cigarette. Her first reaction was one of being shocked at the impropriety of the request, but finally she yielded to repeated demands, first thinking the matter over and then reasoning aloud, "If you ask me to do a thing like that, you must have a good reason, and she [the friend] certainly looks as if she were waiting for me to do it, and doesn't object, so, with your permission [addressed to the friend] I will do it. If I didn't think you [the experimenter] had a good reason, I wouldn't do it."

Shortly afterward she was rehypnotized, reminded of the entire course of events, and was again asked to secure another cigarette. She explained that she could do it better if she were awake, and when the experimenter persisted in his demands that she do it while still in the trance state, she again refused. Nor would she repeat her waking performance in response to further posthypnotic suggestions, declaring that once was enough and that the whole thing was entirely unnecessary.

**Account 21:** Another subject was instructed emphatically but unsuccessfully to examine the contents of her friend's purse. Finally resort was had to posthypnotic suggestion, and when this failed, she was given posthypnotic suggestions to the effect that after awakening she would absentmindedly pick up her friend's purse under the impression that it was her own (care had been taken to arrange that the friend's purse could be mistaken easily for the subject's), open it, and become so puzzled and bewildered at seeing unfamiliar objects in her purse that she would examine them in an effort to discover how they happened to get there. After awakening, during a casual conversation the proper posthypnotic cue was given. She immediately mentioned that she felt like smoking, casually picked up her friend's purse, and started to open it, but as she did so, remarked, "What's the matter with the clasp on my purse? It's suddenly got awfully stiff. Why, this isn't my purse!" and then, recognizing it, put it down and picked up her own, apologizing to her friend.

Upon being rehypnotized, the subject explained that she simply could not do what had been asked, but added that she had "tried hard."

An attempt to repeat these two experiments, 20 and 21, in the absence of the owner of the purse was resisted strenuously, and the experimenter's own attempt to examine the purse

was met with anger and extreme contempt. Similar results were obtained with several other subjects.

**Account 22:** The subject was engaged in a casual conversation about how little things tell a great deal about the personality. From this, comment was made upon the contents of small boys' pockets, and then it was suggested that the contents of the experimenter's purse might be most revealing. She was then urged to take his purse, empty it of all its contents, and make a critical examination of them. The subject was most unwilling to do this, but after extensive urging she finally yielded, declaring, "You must have some purpose in this, or you wouldn't want to make me do it, and it's going to be your own hard luck if I do. I will do it, even though I don't want to. I suppose you are carrying on an experiment and I will just help you out the way you want me to. Another thing, you probably planned this so there isn't going to be anything in your purse you don't want me to see." Having made these remarks, she performed the task, but with obvious distaste and reluctance, and constant urging was required to induce her to scrutinize each object.

**Comment:** In the three accounts 20, 21, and 22, the subjects either rejected the suggestions or transformed the performance into one entirely excusable though obviously distasteful. Such was the strength of their objections in the trance state that they would not permit the experimenter to perform the act required of them in accounts 20 and 21 except at serious risk to himself. In brief, not only did they control the situation for themselves, but they also limited the experimenter in his own aggressive behavior against others not present and who presumably would never be aware of that aggression.

**Account 23:** Over a period of months a hypnotic subject was instructed, in accord with a carefully planned technique of suggestion, to read his roommate's love letters, without the subject's knowledge that the experimenter had secretly made contact with that roommate and had arranged for the leaving of personal letters readily accessible. On the occasion of each hypnotic trance the subject was asked urgently if he had performed his task, and every effort was made to convince him of the legitimacy of the act as a worthy scientific procedure, related to the investigation of the ability to remember unpleasant things, and connected in turn with an investigation of memory processes as affected by hypnosis.

Nevertheless the subject failed to obey instructions, and offered to do any number of disagreeable tasks which could be used as a memory test and which involved himself only. Finally a promise was secured from the subject that he would do as asked on a particular evening if the experimenter would be present. His demand was met, and the subject in the deep trance state was told to find a letter, actually readily accessible, and to read it. Extreme difficulty was experienced by the subject in finding that letter. He overlooked it repeatedly and searched in all the wrong places, since no overt move was made by the experimenter to direct his search. Eventually he had to be forced to find the letter and to open it. He immediately discovered that he could not read it because he had mislaid his glasses. In searching for his glasses he succeeded in mislaying the letter, and when both the glasses and the letter were at hand, he opened the letter in such fashion that he was confronted by the blank sides of the pages. These he kept turning around and

around in a helpless fashion, explaining that the pages were blank. After being told insistently to turn the pages over, he yielded, but did this in such fashion that the writing was then upside down. When this error was corrected, the subject developed spontaneously a blindness and became unable to read. When the blindness was corrected by suggestion and the letter again presented to the subject, the blindness returned, and it finally became necessary to discontinue the attempt.

Some weeks later the roommate, again under instruction from the experimenter, remarked to the subject, "I just got a letter from my girl that I want you to read." The subject replied, "I would like to. It's a funny thing, but for a long time I have wanted to read your mail. I don't know why. I've just had an awfully strong urge and it has disturbed me a lot, and I will be glad to do it and get that urge out of my system." He then read the letter, of which fact the experimenter was notified by the roommate. On the occasion of the next trance the subject was asked the general question about having read his roommate's mail. He stated that he had done so one day in the waking state *at the roommate's but not at the experimenter's request*. He was then questioned extensively for the content of the letter, but he was found unable to remember any of it. When it was suggested that he reread the letter, he agreed, but demanded insistently the privilege of asking his roommate's permission first, nor would he consent to reread the letter unless this concession were made.

**Comment:** Despite a hypnotic technique of suggestion sufficient to hold an offensive task before the subject for a period of months, an exceedingly plausible and acceptable justification, and obviously worthy motives, the entire attempt was so complete a failure that he could not be induced hypnotically to repeat the waking performance authorized in a socially acceptable manner except under the precise conditions of that waking performance. Yet extensive knowledge of him disclosed him to be no more conventional than the average college student.

#### *Acceptance of Complexes Implying Misdeeds Against Others*

**Account 24:** Before presenting the material of the next four experiments, which have been briefly reported in a study of the induction or implantation of artificial complexes, (Huston, Shakow & Erickson, 1934) a preliminary explanation may be offered. These four experiments centered around the procedure of causing hypnotic subjects to believe that they had already committed an objectionable act. While developing an adequate technique of suggestion for this complex implantation, it was discovered that, to be effective, that is, to elicit genuine rather than realistic responses, the complex had to be about an act supposedly already accomplished in the relatively remote past only, and all attempts to build up a complex about some unfortunate act that they would inevitably perform in the future failed. Each explained, when the latter type of suggestions was attempted, that they could not conceive of the possibility of doing such a thing in the future. Yet these same subjects, told they had actually done the same thing in the past, could be induced to accept the suggestion and would then respond in a highly significant fashion, as has been reported in the experiment mentioned above. The significance of these findings in relationship to the suggestion of criminalistic behavior to hypnotic subjects is at once apparent.

Another consideration of equal importance is the fact that *the subject must necessarily have a waking amnesia for the complex material*. Conscious recollection of the story, unless so vague, incomplete, and inadequate as to render it meaningless, will effect a complete understanding and a rejection of it. Attempts to induce a belief in a complex at both waking and hypnotic levels of awareness invariably lead to a complete and resentful rejection of the complex story. The outcome of a conscious recollection is illustrated fully in *The Study of an Experimental Neurosis Hypnotically Induced in a Case of Ejaculatio Praecox*, (Erickson, 1935) in which the subject first recalled the complex as a reality experience and then immediately recognized its nature, nullifying completely its reality. Hence, *although subjects may be induced to believe that they committed some reproachable act, they must not be allowed to become consciously aware of this belief. Its acceptance as a truth apparently depends upon its remoteness from the possibility of conscious examination, and its effect upon the personality is comparable to that of repressed experiences.*

Since the four experiments were all of the same general character, they will be presented as a single account.

Subject A was given a complex centering around the belief that he had accidentally burned a hole in a girl's dress through carelessness in smoking. He accepted the complex, reacted strongly to it, complained the next day of a severe headache, quit smoking, gave away his cigarettes, and was hostile and resentful toward the experimenter and uncooperative in regard to future hypnosis. Rapport was reestablished with difficulty, and thereafter for some months, despite the removal of the complex and the giving of insight, he was unwilling to act as a hypnotic subject unless convinced of the value of the scientific purposes to be served.

Subjects B and C were separately given complexes to the effect that in their eagerness as medical interns to learn the technique of the cisterna puncture they had inadvertently caused a patient's death, which they failed to report. Both accepted the complex in part but rejected certain points for various plausible reasons, and their exposition of these was then followed by a complete rejection of the complex. Both reacted with intense resentment toward the experimenter, although friendly feelings were reestablished when they were acquainted fully with the experiment. Also, both then expressed regret about failing to meet the experimenter's purposes by their rejection of the complex. Nevertheless, when another attempt was made later to induce in them a second complex centering about a culpable act, both rejected it unconditionally with essentially the same succession of events as occurred in relation to the first complex. Of particular interest is the fact that one of these subjects was used in the experiment in Account 2 above. Apparently his intense curiosity did not extend to this type of painful experience.

Subjects D and E, occupational therapists, were given complexes to the effect that they had, through carelessness not in itself seriously culpable, been directly responsible for a serious injury to a patient. Both accepted the complex, reacted with great intensity to it, became markedly hostile and resentful toward the experimenter, but cooperated with him

in the trance state because of his secret knowledge of their supposed misdoing. After the complex had been removed and insight given, both demanded that no further experiments of that nature be done on them, and thereafter they tended to scrutinize closely any suggestions given them in the trance state.

Subject F, a nurse, was given a complex to the effect that she had inadvertently applied the wrong medication to a patient's wound with serious results. When an attempt was made to describe the extent of the unfortunate consequences, it was found necessary to minimize them somewhat if the subject were to be induced to accept the complex. Later, after the complex had been removed and an understanding of the situation had been given, the nurse explained spontaneously that her acceptance of the complex had actually been based upon a somewhat similar mistake nearly committed during her course of training, and she remarked that the experimenter had been fortunate in seizing upon something that could be directly related to a real incident of her past, since otherwise she could not conceive of ever having been so careless.

**Comment:** The fact that such complexes as the above could be induced only in relationship to the past is highly significant in itself. *Apparently it is easier to conceive of oneself having already done wrong than to consider the possibility of committing a wrong in the future.* An indirect criterion of the validity of the experiment is to be found in the account of Subjects B and C, who, even after being acquainted fully with the experimental nature of the procedure, rejected unconditionally the second complex. Finally these experiments serve to demonstrate that while there is a good possibility of making hypnotic subjects believe—in the trance state only and not in the waking state—that they have done an objectionable act, they cannot be induced to believe that they will do such an act.

## Offenses Against the Property of Others

### *Damage, Destruction, or Loss*

**Account 25:** It was suggested to a subject that a practical joke could be played on a certain unpopular girl who was highly critical of the habit of smoking and who professed falsely never to smoke. The joke as outlined was to the effect that the subject should light a cigarette and then, watching her opportunity, pick up a handkerchief which the disliked girl had on her desk and crumple the cigarette in it, so that those aware of the joke could discover it and accuse that girl of smoking secretly and of being surprised in the act and driven to conceal the evidence in this manner.

Adequate arrangements were made secretly with the proposed victim to permit a favorable situation for the perpetration of the joke. However, when the time came to act, the subject refused, declared that it was unfair and wrong to destroy that girl's handkerchief by burning it, even though the girl was a liar, and argued that there must and would have to be a better way to carry out the joke. No amount of urging could induce the subject to accede to the proposal, but she was entirely willing that the

experimenter perform the act. Even so she could not be induced to encourage the experimenter or anyone else in such a performance.

**Account 26:** A subject employed as a stenographer was typing the final copy of a colleague's paper, a task which she had been instructed by her superiors to complete at a specified hour. While so engaged, the subject was hypnotized, and a great variety of suggestions was given her to compel her to type inaccurately and to make a poor copy, with the excuse offered that the poor quality of her work could be accounted for by haste and over anxiety. These suggestions failed, and she could not be induced to do anything of a destructive character despite the fact that she knew the experimenter could and would, by virtue of his official position, protect her from any possible consequences. The only results of the suggestions were a temporary decrease of her speed in typing and a general increase in the care with which she worked.

**Account 27:** A subject was instructed to destroy or throw away certain important papers lying at hand on the desk of a disliked superior. All circumstances were arranged to make the general situation entirely favorable for the performance. Despite repeated and insistent efforts all suggestions were rejected, although there was no objection to the experimenter's offer to do the task.

**Account 28:** The subject was instructed to abstract from a colleague's desk certain important papers and to mislay them in some inaccessible place, thereby causing serious inconvenience to their owner. Despite insistence and emphatic suggestion the proposal was rejected. Posthypnotic suggestions were given to the effect that later in the day, while securing legitimately from that desk certain other papers, there would be an accidental and unnoticed picking up of those documents. Thus in an absentminded way there could be an actual and guiltless mislaying of the papers.

There resulted only an obedience to the first part of the posthypnotic suggestion—namely, securing and filing away the proper documents, but the others, while picked up at the same time, were promptly sorted out and returned.

**Comment:** In the four above accounts various factors of justification for the performance, the existence of adequate protection, a degree of willingness to do the suggested act at a waking level, and in Accounts 26 and 28 the possibility for total exculpation on the basis of accident, all failed completely to permit a performance of the suggested acts.

## Inducing Subjects to Commit Thefts

**Account 29:** A subject was presented with a specious argument about the possibility of developing marked finger dexterity as the result of hypnotic suggestion, and it was proposed to use him for that purpose, to which he readily consented. It was then suggested that he pick his roommate's pockets, and long, detailed instructions and careful practice were given him, particularly about how to stand, how to distract his intended

victim's attention, and how to rely upon his own subconscious understandings of dexterity to pick pockets unnoticed.

The subject objected most strenuously to the entire plan but finally yielded to the specious arguments offered him. On the selected occasion, with provision made for the distraction of the roommate's attention through his close examination of an attention-compelling object, the experimenter and the subject crowded against the victim closely, jostling him in an apparent eagerness to join in the examination. As this was done the subject proceeded with the pocket-picking, but did it so crudely and so roughly that it was impossible for the victim, who was fully aware of the situation, to avoid noticing what was occurring.

Nevertheless the subject insisted that he had performed the act gently and delicately, and nothing could convince him that he had been rough and forceful in all of his movements. Similar results were obtained upon repetition with this subject, despite his realization then that it was an experimental situation.

Similar findings were made with other subjects, among whom was one whose favorite practical joke was picking the pockets of his friends and distributing his loot among the pockets of the group, and then, by some clever subterfuge, causing a discovery of the trick. In the trance state he declared an entire willingness to do this when awake, since then he "would know everything going on," but he flatly refused to do it as a trance performance, since he would be out of contact with his environment and since it would not be a joke but a highly questionable performance carried on at the behest of another.

**Comment:** The apparent acceptance of the suggestions for pocket-picking was made entirely meaningless by the character of the performer, and the persistence in this type of performance, even after the nature of the act had been revealed, disclosed that the unconventional aspect alone of the misdeed was sufficient to preclude a satisfactory execution. Likewise the attitude of the jokester makes clear the sense of limitation that hypnotized subjects feel in relation to their environment. Also there is an adequate demonstration of the ability of the hypnotized subject to recognize readily the entirely different significations of a performance when executed as a prank and when done as an act of simple obedience.

**Account 30:** During a casual visit a subject, displaying his empty package, asked the experimenter for a cigarette. The experimenter apologized for not having any, induced a deep trance, and suggested that the subject purloin from the adjacent office a package of cigarettes habitually left on the desk, since the owner would have no real objection. Thus both he and the experimenter could enjoy a smoke, and the whole situation could then be forgotten. The subject expressed entire willingness to do this if confession might be made to the owner of the cigarettes. When this concession was refused, the subject rejected all the suggestions, even though the experimenter offered to replace the cigarettes with a full package later.

Subsequently, while the subject was in the waking state, in response to his original request for a cigarette it was suggested that he might, as a joke, purloin cigarettes from that same office. To this the subject consented readily, went to that office, and secured two cigarettes, one of which he gave to the experimenter with marked insistence that it be smoked while he smoked the other. Later it was found that the subject made full confession of his act to the owner of the cigarettes.

**Comment:** An act, not entirely acceptable in the waking state, as shown by the insistence upon inculpating the experimenter and the making of amends, was found completely unacceptable in the trance state, despite the knowledge that restitution would be made.

**Account 31:** A poverty-stricken college student was instructed repeatedly in a series of trances extending over a period of weeks to purloin small sums of money left lying carelessly about by his roommate, with whom secret arrangements had been made. Elaborate suggestions and rationalizations were employed, but always without avail. Yet on the occasion of each new trance state, although invariably he pleaded to be excused from the task, he could be induced to renew his previous promises to obey. Finally it became necessary to discontinue the experiment because the subject's intense resentments were effecting a breakdown of the profound amnesias for the trance experiences, which had been established by the experimenter both as a measure of promoting the suggested act and as a means of preventing the subject from discovering the purposes of the repeated hypnotic trances.

Subsequently it was learned that during the course of the experiment the subject had made numerous vague inquiries among the experimenter's colleagues concerning the experimenter's character, for which conduct he could give no reason at the time. When later the subject was given an account of the experimental procedure, he was very much relieved, protested that the experimenter should have known that hypnosis could not be used to make a thief of anybody, and declared that he could now understand his past "peculiar unhappy feelings about you" which had distressed him greatly at the time and which had caused him to seek reassurance about the experimenter's character.

**Comment:** Apparently, in attempting to induce felonious behavior by hypnosis, the danger lies not in the possibility of success but in the risk to the hypnotist himself. What might have happened had an adverse opinion been given of the experimenter is interesting only to speculate upon, since general knowledge of hypnotic reactions suggests that an unfavorable statement would have served to abrogate the suggestions for an amnesia of the trance events. The probability of this will be shown in Accounts 34 and 35.

## **Experiments Involving the Direct Abuse by the Hypnotist of the Subject's Confidence**

**Account 32:** A subject was induced by careful suggestion to believe as the truth a statement originally known by the subject to be false. The outcome was a firm and

effective expression of belief in its veracity in subsequent trance states, but a full recognition of its falsity in the waking state. All action on the statement was limited to the waking state, since during hypnosis the burden of any action was shifted upon the experimenter. Efforts made to have the conviction of truth carry over into the waking state failed, apparently because there had to be a meeting of conscious objections to the statement at the level of conscious awareness.

**Comment:** Yet the “poisoning of the mind” by subtle lies in the ordinary waking state will lead to the development of complete belief, both conscious and unconscious. Apparently the time and situational limitations of the trance state serve to preclude a similar development of belief for both the hypnotic and the waking levels of awareness.

**Account 33:** Another subject was carefully given malicious misinformation about an acquaintance, and this was systematically and convincingly confirmed by the experimenter’s colleagues. There resulted in the waking state the development of a definite attitude of dislike, distrust, and avoidance, coupled with a marked alertness and an intense interest and curiosity on the part of the subject concerning that acquaintance. Within a few days, however, the subject complained to the experimenter of having felt vaguely but distressingly uncomfortable for some unknown reason since the occasion of the last hypnotic session, and demand was made of rehypnotizing as a measure of relief. This request was granted, but an attempt was made to evade the issue. The subject, however, demanded that a full waking recollection be given of the communications of the previous trance, explaining only that “it just has to be done.”

When this was finally done, the subject reacted in a relieved but bewildered way, finally declaring, “Well, if that’s true, and they all said it was, why did you have to tell me when I was asleep? Even if they did say it was true, I don’t believe it. I can’t believe it. I’d have to find out for myself, and just telling me when I’m asleep wouldn’t make me believe it. You’d have to tell me when I’m awake so I would know it. You can’t believe a thing if you don’t know it, and you told me when I was asleep so I wouldn’t know it. If you want me to believe a thing, you will have to tell me so I’ll know it when I’m awake and not just when I’m asleep. If it is true, I’ll find out about it and then I’ll believe it, but this way, why it’s no more than a nasty story. What were you trying to do?”

A full statement and proof of the victim’s awareness of the experiment clarified the situation, and subsequent hypnotic work met with no difficulty, the subject accounting for this on the grounds that the whole experience had been merely unpleasant and of no importance except scientifically, and that there had never been any credence to the story.

**Comment:** Apparently, to judge from the subject’s remarks, such a communication as the above to a subject in the trance state lacks some attribute or quality of reality essential for credence. Despite the acceptance of the story in the state of hypnotic submissiveness the failure of the inclusion in such acceptance of processes of conscious awareness and of conscious responses to the information deprived the story of any significant credence value.

**Account 34:** A second subject, utilized for a repetition of the above experiment, showed essentially the same course of behavior, with the exception that no direct requests were made for a second trance. Instead frequent, apparently purposeless visits were made to the experimenter's office, with vague, hesitant complaints offered about feeling generally depressed and unhappy, all of which were received with casual indifference which led finally to a rather sudden resentful departure by the subject.

About an hour later the subject burst into the office in a violent rage, and a most difficult situation followed. In the period of time after leaving the office there had developed slowly and then with increasing rapidity a full, spontaneous recollection of the events of the trance session, a critical review of the entire situation and of the misinformation given, a complete repudiation of its veracity, and the development of an intense anger toward the experimenter and everybody concerned. Finally, however, the exhibition of the experimental protocol and of the observations that had been recorded, and proof of the victim's awareness, served to effect a satisfactory adjustment, probably aided by the subject's own scientific training and intense interest in clinical psychology and hypnosis.

In reviewing the whole experience a few days later, this subject offered essentially the same explanations as had been given by the first subject. In addition the intensity of the angry outburst was explained as the reaction to the experimenter's violation of the hypnotist-subject relationship occasioned by his seeming indifference to the vague complaints of distress and by his virtual refusal to meet his responsibilities in a situation where all responsibility belonged entirely to him. As in the first case no difficulties were encountered in further hypnotic work with the subject.

**Comment:** In addition to confirming the findings of the preceding experiment, this account is particularly informative in relationship to the general futility of this type of attempted misuse of hypnosis and to the seriousness of the risk encountered by the hypnotist in such attempts. Also the outcome suggests what might have occurred if the experiment on theft in Account 31 had not been interrupted.

**Account 35:** One actual instance of intentionally unscrupulous use of hypnosis concerns a hypnotic subject employed in some laboratory experimentation by Mr. Blank, a capable hypnotist generally regarded as of somewhat questionable character and who was known to dislike the author intensely. Over a period of weeks this subject manifested increasingly marked avoidance reactions toward the author, with whom there existed a casual acquaintance. After about a month of such behavior the subject suddenly entered the author's office, rudely demanded attention, and burst into a tirade of, "I don't like you, I hate you, I despise you, I've got no respect for you, I can't stand the sight of you, and I don't know why. That's why I've come here. I want to find out. I want you to hypnotize me, and when I'm in a trance, I want you to ask me so that I can tell you. It may not be important to you, but it is to me, and I want to know what it's all about."

Attempts to question him in the waking state elicited only the sullen, insistent reply that he did not come to bandy words, that he came to be hypnotized so that he could find out something. *However, he did add that he had never done or said anything against the*

*author and that nobody else knew how he felt.* He explained further that he was a well-trained subject and that he was certain he would go easily into a satisfactory trance.

Taking him at his word, the author induced a deep trance easily, recapitulated the remarks that had been made upon entering the office, and suggested that perhaps he could now know what he wished. The subject proceeded at once to tell a long, detailed story about how Blank, in almost daily hypnotic sessions over a period of two months, had subjected him to an endless recital of innuendoes, veiled remarks, and subtle suggestions discrediting the author. He explained that while he believed none of the remarks, he had found the situation increasingly intolerable, and that it had now become imperative to escape from it. Just how he might do this he did not know, since he did not wish to disrupt Blank's experimental work, which he believed to be excellent, as was actually the case. He then suggested that it might help to give him a full conscious recollection of these matters, since Blank always gave him insistent instructions never to remember consciously any of his trance experiences, with the explanation that such memories, whatever they might be, might interfere with the experimental work, even though it was purely physiological in character.

The subject's suggestion was accepted and acted upon, with a complete readjustment of his attitude toward the author and an intense anger toward Blank, but so adequately controlled was that anger that Blank's experimental findings on him continued to agree with those on other subjects. Upon the completion of that work the subject refused to do any further work with Blank. Subsequently he explained that after his trance with the author he had continued to have a full, conscious recollection of all those events of his trances with Blank not connected with the experiment, and that in this way he promptly "washed them out" immediately upon awakening.

On a later occasion another of Blank's subjects was hypnotized by the author, and inquiry disclosed that a similar attempt had been made upon him, but that his reaction had been, "But I knew you and I liked you, so I didn't pay any attention to what he said, and when he kept on I just told him that I liked you and that you were a friend of mine, and so he shut up."

**Comment:** Here there is an actual unscrupulous attempt to misuse hypnosis, and yet, despite the extreme care with which it was carried on, it led to results unfavorable only to the hypnotist himself, without causing sufficient disruption of the subject's personality reactions to interfere with the legitimate hypnotic work being done with him by the unscrupulous hypnotist. The adequacy and the effectiveness of the protective measures employed by the subject, who was apparently susceptible to such abuse, is striking.

## SUMMARY AND CONCLUSION

To summarize this investigation one may state briefly that a great variety of experimental procedures was employed upon a large number of well-trained hypnotic subjects to induce them, in trance states or in response to commands and suggestions given during trance states, to perform acts of an unconventional, harmful, antisocial, and even criminal

nature, these acts to involve aggressions against both the self and others, as well as to permit direct abuse of the hypnotic subject by the hypnotist. Every effort was made to meet the need for control investigations covering the possibilities of waking behavior, for realism in the experimental situation, and for adequate and varied techniques of hypnotic suggestion. The findings disclosed consistently the failure of all experimental measures to induce hypnotic subjects, in response to hypnotic suggestion, to perform acts of an objectionable character, even though many of the suggested acts were acceptable to them under circumstances of waking consciousness. Instead of blind, submissive, automatic, unthinking obedience and acquiescence to the hypnotist and the acceptance of carefully given suggestions and commands, the subjects demonstrated a full capacity and ability for self-protection, ready and complete understanding with critical judgment, avoidance, evasion, or complete rejection of commands, resentment and objection to instrumentalization by the hypnotist, and for aggression and retaliation, direct and immediate, against the hypnotist for his objectionable suggestions and commands. In addition many demonstrated a full capacity to take over control of the hypnotic situation and actually did so by compelling the experimenter to make amends for his unacceptable suggestions.

Had the above experiments been conducted as obviously experimental investigations, it is entirely possible that the subjects would have given realistic performances in such protected situations, but under those conditions the outcome would not have been a function of the hypnosis itself but of the general situation. In that type of setting one might deceive a subject into performing some objectionable act, but the deception would not be dependent upon the hypnosis. Rather it would depend upon entirely different factors, and the hypnosis, as shown repeatedly above, could easily constitute an actual obstacle to a deception based upon other factors.

Hence the conclusion warranted by these experimental findings is that hypnosis cannot be misused to induce hypnotized persons to commit actual wrongful acts against either themselves or others, and that the only serious risk encountered in such attempts is incurred by the hypnotists in the form of condemnation, rejection, and exposure.

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# An Instance of Potentially Harmful Misinterpretation of Hypnosis

Milton H. Erickson

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This account is an addendum to "One Aspect of Legal Implication Involved During the Use of Hypnosis," published in this issue of the JOURNAL by Lawrence M. Staples, D.M.D. It is only one of many such instances of misinterpretation; it is presented because of its timeliness and the simplicity of its development.

In the spring of 1960 a college student demonstrated hypnosis for purposes of entertainment. He first attempted to hypnotize Mrs. A., a young married woman with several children. Mrs. A. declared repeatedly that he could not hypnotize her and that she was "not smart enough" to be hypnotized. The student, after two unsuccessful attempts on Mrs. A., tried another member of the group, succeeded, and demonstrated elaborately the phenomenon of regression. As he did this, he explained mistakenly that he would have to be careful to remember every step of the procedure, since otherwise his subject might remain permanently in a state of childhood. Later Mrs. A. gave an account of this occurrence to her friend Mrs. B.

Several months later Mrs. B's young son underwent hypnosis satisfactorily during dental work. In discussing hypnosis, the dentist stressed that it should be used only in the field of one's competence, it should not be used as a means of entertainment, and it was seriously wrong to "toy" with it.

Another three months passed uneventfully, and then Mrs. A. developed a sudden, severe "nervous breakdown," requiring extensive psychiatric aid. This breakdown was not regarded as very remarkable, since Mrs. A. was known to have a most traumatic history. She had lost her mother at an early age, had been reared in various foster homes, some of which had rejected her, had always felt rejected and unloved, and she had a long history of unpredictable temper tantrums. She also felt that she had never had any happiness until after her marriage.

About a month after Mrs. A.'s illness Mrs. B, in sympathetic wonderment about the nature of mental illness, recalled some lay discussion of Mrs. A.'s symptoms. As she reviewed this, she became impressed by a similarity between the patient's helpless psychotic behavior and delusional statements, quite characteristic of an acute catatonic schizophrenic episode, and her own memories of Mrs. A.'s account of the hypnotic regression at that parlor entertainment. She reasoned that Mrs. B, despite her assertions to the contrary at the time of the occurrence, had been inadvertently hypnotized and

regressed simultaneously with the other subject and that this effect in some way had lain dormant, only to appear unexpectedly as a "nervous breakdown" many months later. She was convinced that she was on the trail of vital information pertinent to Mrs. A's recovery, but fortunately and wisely she consulted the dentist who had used hypnosis on her son and who had emphasized that it was "seriously wrong to toy" with hypnosis or to use it for entertainment.

The dentist, avowing his lack of competence in psychiatry, referred the matter to this writer for psychiatric evaluation.

This is another instance demonstrating that good intentions, based upon a lack of knowledge, non sequitur, and post hoc propter hoc reasoning could have led to harm for all concerned, had not the dentist been sufficiently well-informed to be able to interrupt the growing body of misinformation and misunderstandings deriving from Mrs. B's assiduous, earnest efforts to be helpful.

From those misunderstandings, though they were based upon an uninformed effort to be of service, irreparable harm could have come to the three families involved in that parlor trick, unwarranted blame could have been heaped upon that student, and the use of scientific hypnosis by reputable professional men could have been made questionable in the eyes of the public.

It is sufficient misfortune that the patient has a long traumatic history and a recognizable psychosis without obscuring these matters by misinterpretations. It is most desirable that her condition be understood by her relatives and by her community in the best possible psychiatric terms and not in the terms of uninformed, misleading post hoc thinking, so destructive to scientific knowledge.

# **Stage Hypnotist Back Syndrome**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, October 1962, 5, 141-142.

During the past 14 years this author has encountered approximately a score of patients, both male and female, and all under the age of 30, who were found to have in common two special items of experience. The first of these was a history of having been a volunteer subject for a stage hypnotist who demonstrated total body catalepsy to his audience by suspending his subject's rigid body between two chairs or similar supports and placing heavy weights upon the subject's rigid abdomen.

The second item was a complaint of a long-continued backache which was difficult to describe and which had puzzled the attending physician because of its vague origin and peculiar symptomatology and which had not been satisfactorily amenable to treatment. In questioning these patients for their medical history the time interval between the stage hypnosis and the backache was found in each instance to range between five and seven months. None of the patients had made a spontaneous association between the stage hypnosis and the backache and no such suggestion was offered them, since they were already patients seeking psychotherapy for other reasons. However, adequate warnings against stage hypnotists were given, and these were readily, in some instances eagerly, accepted.

The onset of the backache tended to occur in two ways. For a lesser number of patients the onset was insidious and was well described by one patient as, "It just seemed to creep up on me until it was so bad I couldn't help noticing it, and then it really bothered me a whole lot." But the greater number of patients related its onset to a state of muscular effort of previously innocuous history. Thus one patient felt that "Something must have gone wrong with my regular push-up exercises and wrenched my back, but I didn't notice it right then." Another thought that he had probably held his back too rigidly in his golf putting practice. Another spoke of a possible strain on his back from his regular diving practice. Several women attributed it to the weight of advancing pregnancy. One explained it as a result of, "My whole body freezing stiff and paralyzed when I saw that automobile accident." In no instance was a reasonably adequate causation described that could be readily accepted.

Despite their divergences of personality and background these patients tended to describe their complaints in remarkably comparable terms. These various descriptions can be best summarized by typical quotations most clearly describing the salient symptoms described by all of the patients:

1. "Your back feels awful sore all over, but you just can't lay a finger on just how it hurts or just where; there are a lot of pin pricks in the bones here and there that come and go."
2. "You get a soreness in your neck and across the top of your shoulders that you can feel, all right, but you can't show the doctor just where." (However, several of the patients definitely indicated that their complaint had been accompanied by a painful condition of the tips of the spinous processes of the upper vertebrae.)
3. "Where your ribs join your backbone, they feel as if they are being pulled off, especially the bottom ribs."
4. "Your breathing seems hard to do, but there doesn't seem to be anything stopping you. You just feel that way."
5. "That pain in your back makes you feel afraid to move and you hold yourself stiffer, and that makes the pain worse but you are still afraid to move."
6. "It more or less lays you up if you can't stand pain, or you take a lot of pain killer and sleeping pills, and after about three months it gradually goes away."

The medical treatment accorded these patients included a great variety of medications and procedures including body casts and traction. The effective agent, however, appeared to be the natural healing processes of the body aided by the passage of time.

The first few cases of this condition seen by the author were not fully appreciated and hence were not fully questioned. All the others included in this report were patients who reported in detail upon a past disability. Three patients who came to the author in the early stages of their condition were sent to orthopedists for a preliminary examination, but they did not return because of a warning by the orthopedists against the use of hypnosis by a psychiatrist.

This account is given not as a definitive report but as a measure of interesting others who may be in a better medical position than is a psychiatrist to investigate more searchingly certain obscure types of backache of apparently unknown causation and to publicize the possibility of a traumatic condition meriting the designation of Stage Hypnotist Back Syndrome.

This author does not undertake in anyway to explain this condition as described to him. It seems unreasonable that the traumatic results should be five to seven months in becoming manifest. However, the patient's psychological welfare was regarded as more important than research into the details of a past experience that might lead to the development of new fears and anxieties. Hence the patients were given no opportunity to develop new neurotic concerns by associating back pain history with what were regarded by the patients as no more than silly and somewhat shameful exhibitionistic incidents. More detailed research can be done on acute cases much more effectively and with much better opportunity for more informative findings.

## **Editorial, The American Journal of Clinical Hypnosis, July, 1964**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, July 1964, 7, 1-3.

The Editor, because of his well-known interest in hypnosis, has received over the years a wealth of telephone calls and office visits in the guise of consultations, but which have been actually efforts to secure aid and instruction by laymen in the hope of exploiting the public through their use of hypnosis. Nor is the Editor the only person upon whom these unscrupulous and ill-informed laymen have endeavored to impose their selfish desires, since many colleagues have reported similar instances of solicitation.

Recently a lay hypnotist telephoned and insistently demanded information over the telephone, seeking instructions in some new technique he might use in an "emergency situation." He impatiently disclosed that he had a high school education, that he had taken instruction in a local lay school of hypnotism, and that he had been taught a technique of hypnosis of the theatrical variety. As a "sideline" he had used that technique to solicit paying clients to "cure" of headaches, backaches, and various bad habits such as overeating and smoking.

His present problem was an emergency. He had told his "client" that her habit of smoking could be cured by hypnosis and that the "cure" would be effective immediately. The client had responded well to the one technique of trance induction which he knew and had accepted his "therapeutic" or "corrective" posthypnotic suggestions that "the thought, mention, or sight of a cigarette would induce convulsive vomiting." He was now urgently asking for telephone instructions for another kind of technique for trance induction because he could no longer induce a trance in his victim, who had been "convulsively vomiting for three days and wanted more help." He refused to give his name or that of his victim, though he did state that two years ago she had been under psychiatric treatment, and that he had obviously picked a self-destructive personality who was so utilizing the situation. Also, he refused to take his victim to a physician for fear of consequences. Instead he insisted that the Editor give him immediately full instructions over the telephone how he "should handle this present emergency" that his lack of medical training and judgment or even common sense had precipitated.

He harshly criticized the Editor's admonitions and concern about his behavior by declaring that the Editor merely "wanted to cut in on the work of an honest ethical lay hypnotist," and that he was a "qualified hypnototechnician" lacking only a variety of "hypnotic techniques," and he then angrily ended the telephone call.

This instance is comparable to another example of an "ethical lay hypnotechnician" advertising his private practice of psychosomatic medicine in the telephone directory. He undertook the "cure of grinding one's teeth at night," and he gave to his client posthypnotic suggestions that the "grinding" could be stopped easily by placing one's tongue between the teeth and "grinding so hard that a posthypnotic conditioned reflex would be quickly established, thereby abolishing the bad habit."

The victim, a young girl who became severely incapacitated by the wound to her tongue, was advised by the physician who treated the injury to sue the man for the practice of medicine and dentistry without a license. Unfortunately she told the charlatan of her intentions, and he left town for parts unknown. The results were that a physician was made greatly antagonistic toward hypnosis, a girl had been victimized, hypnosis had been given a bad name, and the "ethical lay hypnotechnician," so styled in his advertisement, probably continued his "ethical hypnotechnician" practice of medicine and dentistry on other victims elsewhere. This full account was obtained and verified when the girl, a compulsive hysterical type, became the Editor's patient.

Innumerable telephone calls have been received from charlatans describing themselves as "ethical lay hypnotists," and numerous other unqualified persons have presented themselves for specialized training so that they could illegitimately advertise their practice of medicine and psychiatry by means of cautiously worded statements in the classified advertisements of the telephone directory, and, if possible, including the name of some reputable physician in the advertisement. Indeed, the trademark of the charlatan is his name-dropping in his self-glorifying advertisements, especially those sent through the mail.

Numerous colleagues of the Editor have cited to him similar experiences. This state of affairs is a serious danger to the public caused by misinformation and lack of information. Many hospitals and county and state medical societies forbid qualified medical men, competent and fully trained, to do correctly the very thing that the unlicensed, uninformed charlatan does badly and wrongly with glowing, convincing promises to the public.

One need only consult the classified telephone directories of cities throughout the country to realize that the medical profession is assisting this new crop of pseudo-medical victimizers of the general public by all too often shutting its eyes to hypnosis as a legitimate adjunct to the healing arts which should be understood by all members of the medical profession. As the situation now stands, the public, seeking intelligent advice, is led to go to charlatans for medical help that properly should be entirely within the province of the professional person trained in the healing arts.

An example of how ignorance of hypnosis leads to mistakes by members of the medical profession in this encouragement of lay hypnotists is the invitation from a mid-western state medical association to a charlatan holding a mail order degree from an Indiana diploma mill to address the State Medical Association at its annual meeting. He received an honorarium for this "service," delivering his address in a city where "qualified ethical

hypnotechnicians" claim a group membership of 200 "engaged in the professional practice of the treatment and cure of migraine, backaches, headaches, alcoholism, smoking, emphysema, obesity, colitis, etc." (Incidentally the Editor, by means of sending semi-illiterate letters of inquiry written with pencil and ruled tablet paper under various names, has received a wealth of information and invitations from various such organizations to take courses and to become a "certified hypnotechnician," a "qualified lay hypnotist trained to assist physicians and dentists in their professional work, and to treat cases referred for therapy," to be "a trained ethical lay hypnotist prepared to treat various body and mind disturbances," etc. The lack of education evidenced by the laborious penciled script, the ruled tablet paper, the misspellings and erasures, were no barrier to invitations to take courses leading to "certification as a trained ethical lay hypnotist qualified to practice hypnosis in disturbances of mind and body.")

Another example is that of an eastern medical school presenting a postgraduate program which included in its panel of speakers a state certified "psychologist" whose university record shows only 30 hours of scattered psychological courses. The state issuing his certification declares that a doctoral degree in psychology is officially requisite for certification, but the unfortunate loophole of a "grandfather clause" has allowed the certification of actually unqualified persons.

Still another example is the dental school which was officially advised to cancel a scheduled course on hypnosis to be taught by a faculty which included two psychiatrists, one a diplomate of the American Board of Psychiatry and Neurology and a Fellow of the American Psychological Association, the other a holder of a Ph.D. degree in psychology in addition to memberships in the American Psychiatric and Psychological Associations, as well as certified internists, obstetricians, anesthesiologists, psychologists, and dentists, the ostensible reason being that such a course should be given only under the auspices of the psychiatric department in a medical school. At the same time that this course in an accredited dental school was being opposed by an officially appointed central medical committee, the legislature of another state, lobbied by lay hypnotists, was passing a law permitting the medical use of hypnosis by lay hypnotists, this action being unimpeded by any official medical groups.

All of the above is in marked contrast to the constructive and responsible action of one Canadian medical association, which invited the same charlatan as had the mid-western state society to address their annual meeting, encouraged to do so by the apparent endorsement of him by the previous invitation to lecture in the U.S. at a state annual medical meeting, a fact well exploited in the charlatan's advertisements.

Fortunately, because of proper legislation in that area, the Canadian society investigated the charlatan's credentials upon his arrival and firmly ejected him from the country for fraudulent misrepresentation, replacing him on the program by a properly trained and experienced medical professional.

Unfortunately both the American Medical Association and the American Psychiatric Association have done much to discourage the use of scientific hypnosis by medically

competent people who have already demonstrated adequately their abilities to deal well and successfully with patients of all kinds under conditions of all manner of stress and strain. And the telephone directories of the homes of these associations, namely Chicago and Washington, D.C., have extensive classified advertising listing charlatans who are only too glad to take the place of those professionals who should be utilizing hypnosis properly. Medical practitioners are losers, the public suffers, as does science itself. No one profits but the unscrupulous exploiter.

One can only regret that throughout the history of science, medical and otherwise, there have been all too many obstacles thrown in the way of scientific advancement by those who should properly have promoted it, and a handicapping of such advancement by those who prey upon human weakness and ignorance.

## **Editorial, *The American Journal of Clinical Hypnosis*, July, 1965**

Milton H. Erickson

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The Editor in his practice of psychotherapy is governed by his own conception of what constitutes effective psychotherapy. He is also well acquainted with the many and varying schools of thought concerning methodologies of psychotherapy. He is well aware of a great variety of ways and means by which a patient may be dealt with, manipulated, proselytized, reeducated, reconditioned, and otherwise led into a more constructive way of living than that which has led him to seek assistance. To the Editor, the leading of the patient into this more satisfying method of living and of expressing the self is a rightful goal greatly to be desired. The means by which this may be best accomplished is a matter of concern and interest to all students of psychotherapeutic procedures.

The achievement of the goal, while primary, is not the only consideration. Also worthy of evaluation, planning, and thought by the therapist are the matters of time spent, of effective utilization of effort, and above all of the fullest possible utilization of the functional capacities and abilities and the experiential and acquisitional learnings of the patient. These should take precedence over the teaching of new ways of living which are developed from the therapist's possible incomplete understandings of what may be right and serviceable to the individual concerned. Most distressing to the Editor is the type of therapist who will state arbitrarily, "You will need to be in therapy X days a week for three years before you can consider yourself sufficiently well-adjusted to meet the ordinary demands of your life situation." To the Editor such a statement is on a par with that of a lay hypnotist who may blithely promise a completely remade life in 10 easy lessons. Neither of these would-be therapists takes into consideration the individuality of the patients, their own particular learning capacities, and their abilities to execute and to elaborate understandings. No regard is given to the roles of emotions in a patient's pattern of functioning except in terms of formalized constructions.

For example a brilliant young psychiatric resident, concerned with his anxieties about his actual rheumatic heart disease, separately approached two outstanding men who were widely known as representing a certain school of psychotherapy. He recounted his misgivings concerning this emotional reaction to his concern about his cardiac condition, his interest in rearing a family, and the concern he felt about his bride of a year's duration who might run a risk of undertaking the support of a child should one be born to them and should he be prevented from providing for this possible child. The wife was a college graduate.

Both therapists assured him that he needed not less than six years' intensive psychotherapy as would his wife also (she had not yet been interviewed) before the problems of family life could ever be considered. Both accepted this advice; the man took an exacting institutional job to pay for his therapy, the wife accepted a teaching position to pay for hers. Six years later, by accident, a child was born to them, causing dismay, increased financial hardship, and a resulting intensification of therapy. Four years later a second child was born, also an accidental conception. As for the promising young psychiatrist, he had become an ardent disciple of his therapist, living, breathing, and thinking solely in terms of his therapist's teachings. Now at long last, after more than 10 years, he has become independent of his weekly multiple visits to the therapist's office. But instead of genuinely practicing psychiatry or psychotherapy, this once promising young man is only continuing to teach the same precepts that held him in bondage for 10 long years and prevented him from living in a normal life situation. This case is admittedly extreme, yet the proponents of that particular school of thought are arbitrarily and emphatically opposed to any form of psychotherapy for any patient which encompasses less than at least two years' intensive work, regardless of the opinions of other psychiatrists who may agree that brief psychotherapy is all that is requisite for the particular patient concerned. Nor is this the only extreme example that could be cited. Colleagues of the Editor have reported instances comparable to the instance cited.

In such examples the words "psychodynamic orientation" are frequently emphasized in fetishistic style, as if psychodynamic orientation in its true sense were not part and parcel of all interpersonal relationships. Any school of thought which claims sole ownership of "psychodynamic factors" is either blindly or deliberately misrepresenting facts. Yet the word "psychodynamic" has become a symbol, though meaningless, with which to intimidate the unsophisticated, to signify almost mystical values of great and rare importance, and to place a special aura of supremacy upon arbitrarily defined concepts and approaches, with a consequent condemnation of other therapeutic experiences.

To the Editor any contact between two people in which there is an exchange of ideas and understandings is one which is truly *psychodynamic* in character and significance. Such should be the usage of the term, rather than a rigid limitation to one school of therapy.

And in any psychotherapeutic situation, whatever the school of thought which predominates, there must be recognized over and above the formalized structure of thinking, the importance of the patients themselves as sentient beings with needs, capabilities, experiences, and separateness as individuals, with their own background of experiential and acquisitional learning. They are not properly to be squeezed into any ritualistic, traditional method of procedure, nor limited by predetermined miles and formulae.

For these reasons, among others, the Editor strongly favors the use of hypnosis as a modality of psychotherapy, since it serves to elicit and to release the actual patterns of behavior and response existing within the patient and available for adequate and useful expression of the personality. Hypnosis does not try to educate the patient into any one of the many arbitrarily regimented schools of interpretative thought that may possibly fit

various people but certainly cannot be universal in application. Instead hypnosis is a modality which can elicit with greater than ordinary ease those patterns of behavior, thinking, and feeling more conducive to the welfare of the individual and society than to the promotion of some school of interpretative and speculative theoretical concepts and formulations.

# **Hypnotic Induction of Hallucinatory Color Vision Followed by Pseudonegative Afterimages**

Milton H. Erickson and Elizabeth M. Erickson

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Previous experimentation on the induction by hypnosis of various hallucinatory phenomena suggested the possibility of inducing hallucinatory color vision. Accordingly, an experiment was devised involving the hallucination of the colors red, green, yellow, and blue in response to direct hypnotic suggestion, followed by the spontaneous hallucination by the subjects of the complement of each of these colors in a fashion comparable to the development of negative after-images.

The experiment was conducted on five university freshmen, selected from among commerce and engineering students, all of whom had been used repeatedly for hypnotic work but not in connection with the hallucination of colors. In addition, they had been trained over a long period of time to develop exceedingly deep hypnotic trances, and for this experiment from 30-45 minutes of continuous suggestion was given after a trance had been induced to insure a consistently profound hypnotic trance.

## **PROCEDURE**

The procedure employed was comprised of the following steps:

1. The administration in the waking state of a word association test containing a hundred words, among which were "red," "green," "yellow," "blue," and "bright."
2. The induction of a profound somnambulistic trance and the administration of a second word association test, also containing a hundred words, some of which were common to the first list, and among which in a different order were the same critical words.
3. The giving of the following instructions while the subject continued in the deep hypnotic trance:

I am going to show you, one at a time, sheets of colored paper. Each sheet is entirely of one solid color, and this color will be very bright. All of the sheets will be colored, but no two successive sheets will be of the same color. I will name the color of the first sheet, and you will name the color of the next sheet, and we will continue in this alternate fashion. As I name the color of the first sheet, you will look at it carefully until you see it plainly and clearly, just exactly as I have described it. Nod your head as soon as you see it plainly, and I will then put it out of sight in the left-hand drawer of the desk and take a new one from the right-

hand drawer. As I show you this next sheet, you are to look at it carefully and tell me what color it is. It, too, will be of a single bright color, but a color different from the one I named. After you have named the color of your sheet, it will then be my turn to name the color of the next sheet; then your turn will come.

These instructions were repeated several times to insure full comprehension.

4. The exhibition, one at a time, of 16 sheets of plain white typing paper. Of these, eight alternate sheets were described by the experimenter in the following order as "red," "yellow," "green," "blue," "green," "yellow," "red," and "blue," the adjective "bright" being added each time, while the subject was called upon to identify the eight intervening sheets as of some one bright color other than that just named by the experimenter.
5. The exhibition, as a control measure against the development of strong associative values between the complementary colors, of brightly hued red, yellow, blue, and green sheets of paper. These sheets were presented in pairs, with each color paired with itself and with each of the other three colors, making a total of 16 pairings exhibited in random order. As these pairs were presented, the subject named the colors aloud.
6. The repetition of Step 4 followed by questioning of the subjects concerning the color intensity of the various sheets. Such questioning had been avoided previously because of the possible effect of suggestion.
7. The administration of the first word-association test while the subject was still in the trance state.
8. The administration of the second word-association test after awakening the subject.
9. Questioning concerning the definition of complementary colors, and the hazarding of guesses by the subjects when the definition of complementary colors had been given by the experimenter.

## **RESULTS**

1. The preliminary word-association test disclosed no direct association of the various color with their complements.
2. The exhibition for about one or two minutes each of the eight alternate sheets of white paper disclosed four of the five subjects as being fully capable of "hallucinating" in every instance the color specified by the experimenter. The fifth subject invariably saw only a white sheet of paper. Extensive hypnotic suggestion did not alter this behavior. Nevertheless, the entire experiment was performed on this subject.
3. The four subjects who hallucinated the specified color invariably declared the succeeding sheet to be of the appropriate complementary color. There were no failures, except those of the fifth subject.

4. The name of the control pairs of colored-sheets was done correctly by all five subjects.
5. The repetition of the experimental procedure yielded results identical with those first obtained.
6. Questioning of the subjects concerning the color intensity of the various sheets exhibited to them elicited the information that the sheets described by the experimenter were brightly hued but that the sheets described by them were "softer," "duller" and "nowhere near so bright."
7. The word-association test immediately after the experimental procedure, with the subjects in the trance state, yielded a total of nine instances of color associations: red-brown; red-pink; yellow-orange; yellow-tan; yellow-green; blue-red; blue-purplish; yellow-blue; red-green. One of the two associations of complementary colors was given by the fifth subject.
8. The word-association test given after awakening the subjects yielded only two color associations, neither of which was of complementary colors.
9. The post-experimental questioning of the subjects disclosed them to be unable to define or to name complementary colors when asked directly. When a definition had been given them and they were asked to hazard guesses, their tendency was to contrast light and dark colors, such as pink and brown.

To sum up: Of the five hypnotized subjects employed, one failed completely to meet the test situation. The remaining four, in response to appropriate hypnotic suggestions, hallucinated as red, blue, green, or yellow the alternate sheets of white paper exhibited to them and invariably described the intervening white sheets as of the complementary color appropriate to the hallucinated color of the preceding sheet. The results obtained from the control procedures indicate clearly that the experimental findings derived directly from the procedure employed.

### **COMMENT**

The general limitations of these findings coupled with the present inadequate understanding of color vision preclude any attempt at a theoretical elaboration of the results in relation to color vision and limit discussion to tentative suggestion of the processes by which these may have been achieved.

An immediate consideration is that of the role of the hypnosis employed. Although the hypnotic state constituted an integral part of the procedure, its role may safely be described as only one of providing a setting favorable to the performance of the experiment. Unquestionably, the experiment could be repeated in the waking state, but probably with less ease and effectiveness. Hence, in any analysis of the results, the question of hypnosis as such may properly be disregarded.

The next question concerns the character of the stimuli given to the subject. Obviously, the retinal stimulation by white paper did not enter directly into the situation except as a part of the experimental setting, although indirectly it may have had definite, though remote, significance. As for color stimuli, these were wholly auditory in character and were so given as to derive any significance entirely from the subject's experiential past. Hence, a definite statement may be made that the responses elicited arose primarily from activity of central processes, and that the entire problem thus becomes essentially one of central, rather than peripheral, processes and activities.

Two possible interpretations of the findings may be suggested. The first of these refers to purely psychological or associational processes. The experiencing of a color is ordinarily succeeded by a negative after-image. In consequence of this sequence of psychophysiological processes, there is established a direct association between their experiential aspects. Hence, stimuli serving to arouse directly the experiential values of a color would presumably serve to a somewhat lesser extent to arouse the experiential values of the associated negative afterimage.

Since no actual color stimuli were given, and since each of the four subjects who entered into the experimental situation showed no failures for any of the 16 test instances, the assumption may be warranted that there is a direct associational bond between the experiential values of a color and its complement sufficiently strong to permit its evocation by purely psychological stimuli.

While this explanation constitutes a possible interpretation of the experimental findings, it is unquestionably far too simple. A second interpretation may be suggested: the inadequacies of our present understanding of color vision preclude more than a statement of possible factors.

First is the effect of the instruction to see. This instruction in itself, even if the subject had his eyes closed, would constitute an actual stimulus serving to arouse into activity various psychophysiological processes preliminary to vision and upon which visual activity could be based. But since the subjects actually did receive visual stimulation, though neutral in character so far as color vision was concerned, there was some actual visual activity, with a consequent augmentation of the psychophysiological processes involved in vision previously aroused by the nature of the situation.

The suggestion to see a specific color would serve to establish a certain "mental set," leading to the various preliminary psychophysiological processes upon which could be based the initiation of the actual activity of color vision, and which would be derived from the psychophysiological activities based upon past learning. Thus, the specifying of a definite color, while constituting a purely psychological stimulus, would stimulate various mental processes intimately related to the psychophysiological activity of vision already in progress, and these, in turn, would serve to reinforce each other.

Additionally, the naming of a specific color would stimulate into activity various mental processes related to the experiential values of the chosen color, and these processes would also serve to augment the activity of the other processes already aroused.

Hence, although no visual color stimulus had been given, there would be active various psychophysiological and experimental processes, all of which would be intimately associated with each other and ordinarily contingent upon color stimulation of a particular character.

The character of the suggestions to see the specified color was also such as to create a state of tension in the subject compelling a response but limiting the possibility of a response strictly to the subject's own concept of color. Therefore, his response could derive only from his own experiential associations and learned activities. From this state of tension, with its limitations, there could derive a process of control and direction of the various psychophysiological processes in activity leading to the color-vision response normally contingent upon such processes.

Thus, in place of an actual color stimulus, there would be the interaction of these various processes, each serving to initiate further and more complete activity comparable to that of the actual processes of color vision, with the entire process culminating in an actual psychological response of color, the validity of which was clearly indicated by the ensuing subjective response of the complementary color.

When the subjects had made their response to the various psychophysiological processes aroused in them by the presentation of the stimulus sheet described as colored by the experimenter, there followed the withdrawal of this sheet and the presentation of a second sheet which they were to describe as colored. This withdrawal and replacement of sheets constituted an actual stimulus for the cessation of the psychophysiological activity in progress, thereby initiating directly the re-adjustive activities consequent upon the cessation of psycho- and neurophysiological activity. Since the subjects invariably described the second sheet of each pair as of the correct complementary color, the assumption is warranted that re-adjustive processes and activities did occur and that these corresponded in character and degree to those consequent upon actual color vision, and were sufficiently diverse and strong as to permit a subjective response comparable to that deriving from a negative afterimage.

## **CONCLUSION**

Emphasis must be placed entirely upon the factual findings rather than upon the attempted interpretations. The essential consideration of the experiment is that the hallucination of various colors was sufficiently valid subjectively to permit a spontaneous and invariable hallucination of complementary colors in the form of negative afterimages.

Unquestionably, associational and neuro- and psychophysiological processes entered into the production of the phenomena, but not necessarily as has been suggested. Further development of the understanding of color vision is requisite for any adequate

interpretation of the experimental findings; hence their significance must be restricted to their evidential values in relation to the importance of cortical processes in color vision.

## **Discussion: Critical Comments on Hibler's Presentation of His Work on Negative Afterimages of Hypnotically Induced Hallucinated Colors**

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In the June 1938 issue of this Journal Erickson and Erickson (1938) presented experimental findings demonstrating that, by use of an adequate hypnotic technique, subjects could hallucinate colors which were invariably followed by the appropriate negative afterimage. These subjects were shown to be naive concerning the theory and nature of afterimages by both word-association tests and extensive questioning.

In the July 1940 issue of this Journal Francis W. Hibler (1940) reports similarly directed work which purports to contradict the work of Erickson and Erickson, and submits the following theoretical position: "Since hallucinated colors definitely do not have the properties of actual colors, and since no evidence of the existence of the hallucination was discovered except a mere verbal agreement with the hypnotizer, hypnotic hallucinations are probably verbal in nature rather than sensory or a function of the central nervous system."

It is the purpose of this paper to demonstrate that Hibler's negative results derived not from the inability of a hypnotic subject to obtain true hallucinations meeting every subjective criterion of reality, but rather, from the inadequate hypnotic technique that was employed; that Hibler's results can be dismissed as complaisant cooperation on the part of inadequately hypnotized, inadequately instructed subjects, sophisticated as to the subject matter of the experiments; that the findings of Erickson and Erickson's earlier experiment as to the validity of the hallucinations and the spontaneity of the negative afterimages have not been contradicted; and that Hibler's work does not constitute an experimental checking of their findings.

The first criticism to be made of Hibler's experiment concerns his selection of subjects. Of four subjects, three were sophisticated concerning afterimages; the fourth had faulty knowledge, believing that in the experimental setup for negative afterimages, positive ones would appear. As will be shown later, such sophistication on the part of the subjects seriously militates against the reliability of the experimental results and precludes their adequate evaluation.

The second general criticism which may be made is that Hibler invoked his hypnotic trances too rapidly, although he notes that Erickson suggests a trance induction of at least 15 to 30 minutes. Hibler admits that the "exact importance of the time element is

certainly worthy of further research"; yet he spent only a total of eight minutes, five in verbal trance suggestion, three in which the subject simply waited, in order to induce his hypnotic trance. In this short time he proposed to produce sufficiently profound dissociation to permit such difficult phenomena as valid visual hallucinations and possible neuro- and psychophysiological changes; and, in such a trace, to test accurately the ability of the subject to demonstrate these phenomena. My co-worker, in his extensive experience as evidenced in work involving similar phenomena, and possible physiological changes by hypnotic suggestion (Erickson, 1938, 1939; Huston et al., 1934), has come to the conclusion that superficially a subject, especially a trained subject, can within a period of a few seconds manifest the appearance of a deep trance, and can easily meet all the usual criteria of the hypnotic trance. However, to establish a state adequate for serious experimental work, and so far removed from the normal waking state that hallucinations can exhibit all qualities of reality, requires that the subject be given at least 15 to 30 minutes to permit the development of possible neuro- and psychophysiological changes and to adjust himself.

Hibler does not seem to realize that the appearance of hypnotic phenomena and the meeting of the usual trance criteria have to do only with the manifestations of a simple trance and not with highly complex phenomena to be developed out of that trance state. To establish a hypnotic trance state adequate for the induction of significant alterations of customary processes of behavior requires a period of time directly proportional to the complexity of the alterations desired. A parallel might be drawn in relation to the depth and stability of the state of physiological sleep immediately upon falling asleep and at later intervals during the course of that sleep. Hibler desired profound alterations in behavior processes, yet made no provision for the temporal requirements for such developments.

To proceed to the specific experimental setup, it should first be noted that Hibler's preliminary control series consisted of a test to check the extent of the subject's knowledge of afterimages. It consisted of questioning the subject as to his opinion of what would appear following fixation on each of the primary colors. This test may be objected to on the grounds that it possibly served to inform the subject that the experiment to follow would concern afterimages, of which he did have knowledge. Erickson and Erickson's subjects had no such preliminary hints, all investigation previous to the actual test work being concealed in the form of word-association tests, and questioning being resorted to only after the experimental work had been finished.

After this preliminary series, Hibler proceeded to his tests of trance hallucinations. His apparatus setup, consisting of a Dockeray tachistoscope using two blank gray cards so presented that the subject did not need to shift his ocular fixation, is excellent. The first card was always described to the subject as having on it a disc of one of the primary colors; then he was asked to describe what he observed on the second card.

Three of the four subjects consistently described discs of a color appropriate to the negative afterimage of the primary color named. The fourth subject equally consistently

described discs of the same color as the primary color named. All results were in accord with the subjects' previously expressed expectations.

Now these results may be explained in three different ways:

1. Hypnotic subjects are capable not of actual hallucinations but only of complaisant cooperation. This is the point of view to which Hibler inclines.
2. The hypnotic subjects all obtained actual hallucinations. Three subjects obtained actual negative afterimages from their hallucinations. The fourth subject's hallucinations, as is so often the case, were slow to appear and develop. They had just started with the first card and attained full development with the second.

Inasmuch as the fourth subject expected afterimages of a positive nature, this explanation is unlikely to be true. Nevertheless it must be considered. Had subjects been chosen who were completely naive as to the theory and nature of afterimages, this difficulty could not have arisen.

3. Hypnotic subjects in a deep trance may or may not be capable of actual hallucinations. However, hypnotic subjects in a light trance, given a visual test in which they expect a definite result, may not experience visual hallucinations when so instructed, but may, at a level of verbalized agreement, give the expected answer.

Any one of the explanations is possible. The third we hold to be the most acceptable. Hibler's next series is to be criticized not only in its interpretation, but, also from the point of view of the specific instructions given to the subject. Hibler's purpose was to test the subject for the afterimages in "the waking state, without knowledge of the hallucinated color stimulus," to a color hallucinated in the trance state. Therefore he desired to have his subjects in a trance state while the original color was hallucinated and awake when the afterimage, if any, developed. He attempted to do this by giving the following suggestions while the subject fixated the hallucinated color disc:

"Now I am going to wake you to the count of three. When I say *three*, you will be wide awake, feeling fine in every way. While you are awakening, your eyes will remain glued on the dot on the card in front of you, and you will not remember anything that happened while you were asleep. Ready, one—two—three. What do you see?" (Experimenter removed card with hallucinated color between count of one and two.)"

Now, using the same experimental setup and suggestions, but using real rather than hallucinated color discs, each subject had reported the appropriate negative afterimage in every case, showing that the awakening from trance alone does not disrupt the actual development of a real afterimage. In using real rather than hallucinated cards, the experimenter was depending upon a reality situation totally independent of the hypnotic state. Memory of having seen the real card does not enter into the development of a negative afterimage. Thus he could be shown the real card in the trance state, awakened

with no memory of having seen it, and yet, in the ordinary course of events, experience the negative afterimage.

But when hallucinated colors were used in this series, no afterimage appeared in any case. Analysis of the suggestion given shows that the subjects had been told to hold themselves in readiness to awaken. Now this suggestion in itself served to arouse the subject from the hypnotic trance to a certain extent, putting him into a ready-to-awaken or an altered trance state, more akin to the waking than to the deep trance state.

Essentially the subject has been asked to hallucinate in the trance state, is then asked to awaken, and thus to abolish the trance state, and yet at the same time to continue his trance activities. The experimental data obtained from subjects in this borderline state relates to the realities to be expected after awakening, not to the activities of the trance, which have been abruptly and unintentionally abolished. Thus Hibler requests certain responses and then inhibits them by changing the total situation upon which those responses depend. Yet Hibler gives as "the only possible interpretation that if an afterimage of any sort is experienced in the trance state as the result of an hallucinated color, it must be very different from that experienced from the presentation of an actual color stimulus."

Hibler's final series was much more complicated. It assumes the following (p. 55): "If the subject actually experiences red, it should make no difference if that red is superimposed over blue, or is on a gray card."

This primary assumption is certainly disputable. An hallucination in the usual sense is without doubt superimposed upon a background of reality. The subject does not see the hallucinated red disc all by itself with the rest of the visual field a neutral haze; he sees it in the appropriate opening in the tachistoscope. If that opening in the tachistoscope is occupied by a blank gray card, his task-to hallucinate a red disc on it-is relatively easy. But if it is occupied by a gray card on which there is already a blue disc, the difficulty of his task is increased many fold; it now becomes that of seeing a distinct object, the blue disc, as one totally different, a red one; and this transformation is to have absolute validity.

Now how does Hibler propose to suggest to his subject that this extremely difficult task be accomplished? He gives the following suggestion:

"You see this disc. What color is it? (Pointing to the red disc.) That's right. Now this disc (blue) is exactly the same as this one (red). It is the same in every way, the same hue, brightness, and saturation. It is the same color. Now take this card in your hand and describe this disc to me. (Subject takes blue disc and describes it as red, giving size and shade as a rule.) That's right, now remember, this (blue) is the same as this (red) until I tell you differently."

Before commenting on these specific suggestions, it is necessary to emphasize the care which must be taken with the wording of hypnotic suggestions. It is of extreme importance in giving hypnotic suggestions, particularly in what is intended to be a closely

controlled experimental situation, to be certain that the meaning of every word the experimenter says has been carefully evaluated, especially for its most literal sense, so that the subject is not led astray by the superficial meanings of the words employed, but, rather comprehends the actual significance of the instructions.

In experimental work with waking subjects this extreme care is not ordinarily so necessary. For example, a subject was given an examination which necessitated filling out a questionnaire concerning her age, nativity, and education. One question ran "Where born: City \_\_\_\_\_, State \_\_\_\_\_." In the waking state the subject unhesitatingly filled in the name of the city and state. The same subject in the hypnotic state wrote 'Yes' in each blank. This is not a chance example, but rather one typical of numerous comparable instances.

Similarly, a subject was shown a tray containing a number of objects for a few moments and asked what he saw. In the waking state it made no difference which of these two forms of the question was used:

"Will you please tell me everything you saw on the tray."

"Please tell me everything you saw on the tray."

Yet, when hypnotized, the same subject usually answered simply "yes" to the first form of the question and quietly awaited further instructions, but would give the expected type of answer to the second form.

In addition to this literalness the hypnotized subject often responds to cues which the waking subject would not notice or would ignore as accidental or insignificant. One needs only to see a subject in a deep trance state to realize and be impressed by the fact that the subject can, upon observing a slight gesture, an intonation, a change in wording on the part of the hypnotist which may even have been unwittingly made-unhesitatingly carry out the suggestion implied by it.

To return now to Hibler's suggestions, the final sentence, "That's right, now remember, this (blue) is the same as this (red) until I tell you differently," distinctly told the subjects that the change of color was to be one of understood agreement only and thus effectively destroyed any force which the preceding suggestions might have had. It is not sufficient to have the subject agree only-rather, the subject must perform the infinitely harder task of experiencing, and the acceptance of Hibler's suggestions did not imply an acting upon them but only an abidance by them. To show the inadequacy and self-contradictory character of any such suggestions, one might parallel them as follows: "You see this watch. It is a gift to you. It is to be all yours, your very own permanently yours, *until I tell you differently.*"

But even without this final nullification the suggestions in themselves are far too simple, brief, and casual to cause such a marked effect as was desired.

Adequate suggestions should have been similar to the following, with sufficient time allowed for full comprehension of and full response to each suggestion and a variation from one subject to the next to insure individual understanding on the same significances:

"You see this disc. What color is it? (Red). I want you to see it plainly and clearly and to continue to see this red disc plainly and clearly. Now I want you to see this other disc. What color is it? (Blue). Now I want you to look at it carefully and steadily because slowly, gradually, sooner or later it will lose its present color and will acquire a new, different, and equally bright color. And as you keep looking, you will begin to note its changing; you will become increasingly aware of the change, and at first, as you note the change, this disc becomes increasingly neutral in appearance. Then, after it becomes neutral, it will acquire a new and bright and familiar color, and as you begin to wonder what this color may be, you will begin to note that this disc is rapidly becoming red, even as red as the first disc; and as you look at it you see and feel and know the redness, just as you see and feel and know the redness of the first disc, and so now you will continue to see either of these red discs at any time necessary, seeing them both clearly, fully, and readily."

The purpose of the suggestions is to induce an experiential response, not a tacit agreement. This is difficult; it requires a subject in a deep trance; it requires repeated suggestions making the desired change in color through small gradations. The color is first faded to neutral because that is a change more acceptable to the subject, in keeping with his general past experience, such as scotopic vision. The experiential values of the first red disc are emphasized, and finally of the two red discs, and after the change is made, no word is spoken which suggests or even hints of pretense or of any difference between the two. Then and only then can we expect genuine responses.

Hibler's results are exactly as would be expected: when results were reported in the waking state (the "hypnotic" work having been done in a state preparatory to awakening), all afterimages were of the real rather than the suggested color; when results were reported in the trance state, two subjects reported the results they expected to get from the suggested color (positive on the part of one, negative on the part of the other), while two reported the afterimages of the real rather than the suggested color. In other words all these results can be readily explained on the assumption of mere verbal cooperation on the part of the subjects, and failure to induce experiential responses.

In Erickson and Erickson's study the subjects, so far as could be determined by association tests and extensive questioning afterward, and from their selection from the classes of commerce and engineering freshmen, were naive concerning the nature of complementary colors. Well-trained subjects were used, a period of 30 to 45 minutes of trance induction was allowed to insure profound trances and experiential responses rather than verbalized agreement. The use of alternate sheets of white paper, described as all being colored, the subject and the experimenter to name the color of the alternate sheets, prevented the subjects from even realizing that the test concerned afterimages, or (since they were found to know nothing of afterimages) of a white sheet of paper seen after looking at a colored one. Of five subjects, one failed completely to meet the test situation

apparently for the reason that he could not hallucinate colors. The other four invariably described the intervening white sheets as of the complementary color appropriate to the hallucinated color of the preceding sheet. Hibler's carefully set-up apparatus gives the superficial impression of greater accuracy than the simple sheets of white paper; yet careful evaluation showed that his extreme control of experimental conditions concerned everything but the actual essentials.

Hibler's experiment proved only that an inadequately hypnotized subject who knows about afterimages sees the appropriate afterimages in what he realizes to be an afterimage set-up; that subjects instructed to hallucinate colors in a semi-waking state do not experience afterimages of those colors; and that subjects instructed to regard and treat one color as another, knowing about afterimages, may or may not carry the cooperation so far as to report the afterimage they assume to be correct.

Hence Erickson and Erickson's earlier experiment, not having been repeated or even checked in any detail by Hibler's, must still be considered to be accurate, and its final conclusion to stand: that the hallucination of various colors by hypnotic subjects can be sufficiently valid subjectively to permit a spontaneous and invariable hallucination of complementary colors somewhat in the form of negative afterimages.

The real contribution of Hibler's experiment to hypnotic investigative work is its demonstration of how misleading and unreliable experimental results can be when their acceptance is based upon the completion of an experimental procedure without due regard or provision for the nature and character of the phenomena under investigation by that procedure.

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# **Induction of Color Blindness by a Technique of Hypnotic Suggestion**

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Previous work on the induction by hypnotic techniques of deafness (Erickson, 1938) and of hallucinatory color vision with pseudo negative afterimages (Erickson and Erickson, 1938) suggested the possibility of effecting other alterations of sensory functioning by hypnosis. Accordingly, an experiment was devised for the hypnotic induction of color blindness in subjects having normal color vision. Selected as a measure of color vision was the Ishihara Color Blindness Test, since it consists of plates of colored dots so arranged as to outline various numerals, the perception of which is directly dependent upon and limited to the actual degree of color discrimination present.

## **A. EXPERIMENTAL PROCEDURE**

Preliminary work soon disclosed that induced color blindness constituted so complex a phenomenon that a satisfactory and effective technique of suggestion would necessarily be more extensive and comprehensive than the simple, direct type of hypnotic suggestion usually employed in hypnotic experimentation. Accordingly, a number of well-trained subjects were utilized solely for the purpose of developing a technique of suggestion adequate for the experimental project. These subjects, selected at random from among those available, underwent various clinical procedures leading to the development of what finally seemed to be a satisfactory experimental technique. They were then dismissed, because of possible sophistication, as unsuitable for the actual experiment, and new subjects, unacquainted with any of the steps of the experimental procedure, were employed.

A total of six new subjects, four female and two male, were used, of whom two were nurses, two occupational therapists, one a medical student, and the other a hospital attendant. All were of normal or superior intelligence and were capable hypnotic subjects. None had had any previous acquaintance with the Ishihara Test, and for experimental reasons no preliminary test was made of their color vision. The occupational therapists, however, were found afterward to be acquainted with a wool-sorting test for color vision.

The experimental sessions were held in the mid-afternoon of bright, sunny days in a room well lighted by the sun but free from glare. The plates were exhibited in a vertical position on a frame supporting them at the level of the subject's eyes and at a distance of approximately 28 inches.

To acquaint the subject fully with the nature of the proposed task, cards similar to the test plates but bearing numerals cut from a calendar were presented under test conditions, and the subject was required to read them aloud. Instruction was then given to read any other similar cards in a like fashion, without straining the eyes or staring hard, and with mention made promptly of any difficulty or uncertainty in reading.

To preclude the possibility of cues being given unconsciously to the subjects by the experimenter, two additional control measures were of service. The first of these was the experimenter's own state of color blindness, which precluded his identification of the plates. The second measure lay in shuffling the cards face down and then labeling them on the back with a distinguishing letter. In presenting the cards the subject was not permitted to see the distinguishing letter, and with the exception of Plates 14, 15, and 16, which are read as having winding pathways, care was taken by the experimenter to avoid seeing the face of the card. The plates were relabeled for each experimental session to prevent any accidental association by the experimenter between a reply and a distinguishing letter.

The suggestions of the various types of color blindness were made in the order given in Table 1.

The actual experimental method evolved varied slightly in details from subject to subject, depending upon the order of suggestion of total, red, green, and red-green blindness. The essential steps in the procedure, however, may be summarized briefly as follows:

1. The slow, gradual induction of a profound somnambulistic hypnotic trance.
2. The induction by slow degrees of a state of "hypnotic blindness," this blindness to persist throughout the trance and post hypnotically.
3. The awakening of the subject in this suggested blind state to permit the spontaneous development of affective distress and anxiety over the subjective visual loss.

TABLE 1

<i>Subject</i>	<i>Session 1</i>	<i>Session 2</i>	<i>Session 3</i>	<i>Session 4</i>
A	Total	Red	Green	Red-green
B	Red-green	Green	Red	Total
C	Total	Red-green	Red	Green
D	Green	Red	Red-green	Total
E	Total	Green	Red	Red-green
F	Red	Green	Red-green	Total

4. The induction of a second trance during which the blindness was reinforced as a preliminary measure to the next step.
5. The explanation to the subjects that it was now proposed to alter this blindness by "restoring" vision in part, yet leaving a "limited" blindness which would preclude the seeing of a certain color or colors. All objects would be seen clearly, but the chosen color

itself, which was directly specified, would not and could not be seen. Instead, while all objects might be seen, certain of them would appear in a new and unfamiliar guise, their appearance being one of a totally neutral color tone.

6. The induction of a profound amnesia, to ensue at once and to persist indefinitely, for the chosen critical color or colors which had been specified. In addition, there were given vague general instructions serving to effect an inclusion in the amnesia of all connotations and associations for that color, thereby rendering the name of the color either a nonsense syllable or a totally unfamiliar word.

7. The slow gradual "restoration" of vision accompanied by the giving of elaborate detailed suggestions. These were to the effect that soon everything would be clearly visible and yet vision would be incomplete. This incompleteness would derive from changes effected in the visual capacity by the induced blindness. These changes would cause things to be altered in hue, and while colors would seem to be normally bright and vivid, there would be more neutral tones. These neutral tones would serve to alter materially the appearance of familiar objects, and this alteration would be of such character as to be indefinable. No mention was made in this step of the chosen color, since presumably that had become a nonsense syllable for the subject. Neither was mention made up to this point, either directly or indirectly, of the Ishihara Test.

8. The administration, with the subject in the deep trance, of the Ishihara Test, exhibiting the cards in a different order for each session, with the exception of the sample card, which was consistently shown first. This was followed by the administration of the test in a posthypnotic somnambulistic state, with the subject still under the influence of the hypnotic suggestion and with the shuffling of the cards including the sample card.

9. The repetition in separate experimental sessions, usually several days or a week apart, of the foregoing procedure for each suggested variety of color blindness.

10. The separate administration of the test by an associate and by the experimenter at later dates with the subject in the normal waking state and in the simple trance state.

11. An attempt to induce the subjects in the waking state to see figures other than those read previously in the normal waking state. Care was exercised to keep the conditions of exhibition of the cards standard so far as light, position, and angle of vision were concerned.

In giving the test, all 16 plates were used, and a total of 13 separate administrations of the test were made for each subject, only eight of which were actually experimental in character. Of these eight, four were made during the deep trance states and the remainder during the succeeding posthypnotic somnambulistic states. Hence there were two administrations of the test for each experimental session. Of the five control administrations made subsequent to the experimental work with the subjects in the normal waking and in the simple trance states, two were given by the experimenter, and these were repeated by an associate. The fifth control, actually requiring several

administrations of the test, was the one in which an effort was made to force or to induce the subjects to see other or additional figures in the plates, or to fail to see those actually there.

## B. EXPERIMENTAL FINDINGS

### 1. Results on Control Tests

The control examinations disclosed normal color vision for all six subjects. However, Subject *B* consistently read 71 for Plate 5, which is usually read as 74 by the normal, as 21 by the red-green blind, and with difficulty if at all by the totally color blind. No other evidences of color blindness were detected for this subject. Otherwise the reading of the plates by all the subjects was strictly in accord with the criteria of the test for normal color vision.

In the final control administration of the test, the subjects were asked to be certain of their previous readings of the plates. When each reading had been confirmed, instruction was given to the effect that the plates would be shown again. This time they were told that, if the plates were scrutinized with great care, it would be possible to see *different numerals, additional numerals, or even to see the plates as having no numerals*, and they were admonished to exercise much effort to read the plates in an entirely new fashion. These instructions were repeated upon the exhibition of each plate.

Upon presentation of the first plate, two of the subjects consciously inverted 12, reading it as 71, and it was necessary to correct this error of understanding. Plate 2 was read by three of the subjects as either 8 or 3 with the explanation that the numeral could be a 3 if one chose "to ignore part of the 8."

Plate 3 was consistently read as 6, the normal response, although several of the subjects explained that if they studied it, they could get slight changes in the form of the 6. None saw the 5 as such.

Plate 4 was read by two subjects as a possible 8, tracing the 5 and part of the 2 to form the numeral 8. However, they did see the 5, which is the normal reading, but did not distinguish the 2 as a separate numeral.

Plate 5 was read consistently by Subject *B* as 71; he explained that parts of the number seemed to be slightly obscured, but he could not define these parts. Three of the subjects explained that one might direct attention to one or the other of the two figures and thus read only a single numeral. Except for Subject *B*, all subjects gave the normal reading.

Plates 6, 7, 8, and 9 were vainly scrutinized for additional figures. None of the subjects seemed to realize the possibility of seeing these plates as having no numerals.

Plates 10 and 11 were declared by most of the subjects as having fragmentary lines which could be construed as forming various numerals or letters of imperfect outline. Three of

the subjects outlined vaguely and inaccurately the numeral 5 for Plate 10, and a fourth subject repeatedly experienced fleeting glimpses of the 5. Two subjects outlined the numeral 2 on Plate 11 but declared it to be "practically invisible"; two others succeeded in outlining it inaccurately, explaining, "If you look hard enough, you get a feeling that maybe there is a 2 there"; the remaining two declared that there was no numeral.

On Plates 12 and 13, reports similar to those given in relation to Plate 5 were obtained. In addition, four of the subjects explained that the numeral 6 on Plate 12 and the numeral 2 on Plate 13 could be the figures most easily overlooked by redirection of attention.

On Plate 14, the normal response was given, although four subjects could see, in addition, fragmentary parts of the other line.

On Plate 15, all subjects saw the normal line.

On Plate 16, all of the subjects succeeded in seeing fragmentary parts of the line usually seen by the red-green blind, but in addition, false lines.

As an additional measure, the subjects were shown the cards briefly illuminated by red, blue, green, and yellow lights separately. Much astonishment was manifested by the subjects when they discovered that figures hitherto unseen by them could actually be made visible on the cards. The test was then repeated under standard conditions after shuffling the cards. Despite their sophistication by the exhibition of the cards under colored lights, the subjects were unable to do more than confirm their previous normal responses. However, they were more confident in their statements about additional numerals.

Essentially, this control procedure disclosed that, while the subjects could be induced to see more on the card than was usually perceived, the *process was essentially one of addition to the normal perception or direct subtraction from it* without there being any change or substitution or alteration of perceptual values. Hence, these findings may be summarized by the statement that, even under pressure to read the plates in a new or different fashion, the subjects continued to read them in the previous normal fashion, and the slight evidence obtained in some instances of an ability to detect other possible readings disclosed the subjects as unable to attach a clear perceptual validity to the new readings.

## 2. Results on Experimental Tests

Since the responses obtained for the trance state and for the posthypnotic somnambulistic state were essentially identical, no differentiation will be made between them. Occasionally a subject would be slightly more certain of his readings in one state than in the other, but there was no reliable difference. The test responses for the various types of suggested color blindness, because of their diversity and multiplicity, will be presented in the form of tables,<sup>1</sup> from which Plate 1, actually a sample plate, is omitted since it was consistently read correctly in all sessions by each subject. In addition, the rating of each

response, as determined by the criteria of the test, is included in the appropriate tables. In assigning these score values, those instances permitting two possible interpretations of color vision defect are given a rating signifying the less color blind condition, while those instances permitting several possible interpretations are listed as doubtful or as undifferentiated. While this arbitrary method of interpreting these responses may introduce an error, it is one of conservatism, hence serves to emphasize the clearly positive results.

Table 2 shows the distribution of possible responses for the various test plates, and indicates those responses indicative respectively of normal color vision and of defective color vision. As may be readily seen, 10 normal responses are possible, three do not permit differentiation between normal color vision and total color blindness, and two do not permit differentiation between normal color vision and red-green blindness. The other possible responses are those indicative of color vision defects.

Tables 3-6<sup>2</sup> show the individual responses of each subject to the various test plates, together with the rating of the responses according to the test criteria. A summary of the individual test responses according to their rating for the four types of suggested color blindness may be found in Table 7. Comparison of this table with Table 2 permits a ready appreciation of the extent and character of the color vision changes induced in each of the subjects.

A further summary of the results may be found in Table 8, showing the distribution of test responses in accordance with the significance of the test plates and in relation to the various types of color blindness suggested.

TABLE 2  
DISTRIBUTION OF POSSIBLE RESPONSES ACCORDING TO PLATES

Plate No.	Normal color vision responses			Defective color vision responses			
	N	N/T	N/RD	T	RG	R	G
2	1			1	1		
3	1			1	1		
4	1			1	1		
5	1			1	1		
6	1			1			
7	1			1			
8	1			1			
9	1			1			
10		1				1	
11		1				1	
12			1			1	1
13			1			1	1
14	1			1	1		
15	1			1			
16		1			1		
Totals	10	3	2	10	8	2	2
Comparative totals for 6 subjects	60	18	12	60	48	12	12

## **C. SUMMARY OF RESULTS**

The results of this experiment were similar in character for all six subjects and may be summarized as follows:

1. Normal color vision was disclosed to be consistently present in ordinary waking and hypnotic states.
2. Control procedures directed to the purpose of enabling the subjects to detect test plate numerals indicative of color vision deficiencies failed. Despite these procedures, the subjects continued to see the numerals indicative of normal color vision.
3. The hypnotic suggestion of various types of color blindness was found to induce consistent deficiencies in color vision comparable in degree and character to those found in actual color blindness.
4. The extent of the induced color vision defect for the various types of suggested color blindness was progressively greater in the following order: green, red, red-green, and total color blindness. The proportion of normal color vision responses out of a possible 60 were, respectively, for the suggested green, red, red-green, and total color blindness, 30, 17, 6 and 4, and the number of definitely color blind responses not possible ordinarily for the subjects were, respectively, 44, 54, 84, and 73 (the lower numerical value of this last figure is a function of the test itself and derives from its significant limitations for total color blindness).

## **D. COMMENT**

### **1. General Considerations**

Before commenting on the experimental results, mention will be made of the subjective reactions manifested during and after each experimental session. These reactions were essentially the same in character for all subjects though not always of the same degree from subject to subject or from session to session. They may be summarized as complaints of extreme fatigue, muscular stiffness, and severe headaches following each experimental session. Frequently during the experiment it became necessary to allow a rest period between the trance and the posthypnotic states, during which the subjects merely rested quietly in the hypnotic sleep. There were, however, no observable manifestations of these symptoms during trance states other than the verbal complaints which were elicited only upon direct inquiry. In the waking state, complaints were offered spontaneously. After each session all of the subjects were most curious to know what sort of strenuous physical exercise they had been given in the trance which could account for their general muscular stiffness, intense fatigue, and throbbing headaches. These reactions are suggestive of profound neurophysiological responses to the hypnotic suggestions.

Another preliminary consideration is the type or character of the hypnotic trance used, since in all probability the slowly induced, exceedingly profound trances employed in this experiment contributed greatly to the results obtained. In regard to the hypnotic training of these subjects, an average of eight hours was spent in the initial training procedures for each subject. This time was devoted entirely to the task of teaching them to sleep soundly and stuporously and to develop profound somnambulistic states. *Not until this had been done was any attempt made to induce other hypnotic phenomena or to use the subjects for investigatory purposes.*

In the author's experience, it is only by such laborious measures that there can be secured a sound, psychologically consistent and effective hypnotic trance of a character permitting the acceptance and execution of complicated and difficult suggestions. The ordinary deep trance, rapidly induced, with the subject given direct and emphatic suggestions, does not permit the gradual and effective development of what may be called the "mental set" which is requisite for the execution of complicated behavior free from the influence of waking patterns of response. Once adequately trained, the subject can be hypnotized quickly and deeply, but a slow induction extending over 15 to 30 minutes is desirable for difficult experimental work. Apparently, the element of time is an important factor in securing a neuropsychological state which will permit the subject to accept and act upon a suggestion freely and completely and without inhibitions and limitations deriving from customary waking habits and patterns of behavior.

The speculation may be offered that the deep trance and the lapse of time permit a quiescence or a general state of mental inertia to develop, so that when a hypnotic suggestion is given, it serves only to arouse those mental processes immediately involved, and is acted upon free, in large part, from the conditioning or controlling influences that would be imposed upon it by the activation of various inhibiting mental processes or response patterns derived from other and past experiences. In this way, apparently, the hypnotic task can be approached by the subject as a new experience uninfluenced by past experiences and their derivatives.

Concerning the rationale of the varied hypnotic instructions given to the experimental subjects, certain explanations are warranted to clarify their extent and character.

In this regard, as was discovered early in the preliminary clinical experimentation, direct suggestions of color blindness were ineffectual since they were at absolute variance with the subject's intellectual grasp of reality and thus in utter conflict with the established products of past learning and experience. In addition, such direct suggestions required the subject to differentiate between *what was to be seen and what was not to be seen*, a differentiation possible only if *all were seen*. These two serious obstacles resulted either in a failure to accept suggestions, or, if they were accepted, in a negation of seeing which did not constitute color blindness.

Hence, the problem became one of circumventing these difficulties. This could be done, presumably, by creating a psychological situation which would permit an approximation of an actual state of color blindness, in which intellectual conflicts could not arise about

the existence or nonexistence of colors, and in which full vision could obtain without a need either to differentiate between colors or to avoid seeing colors.

Accordingly, the solution of this problem was attempted by first suggesting total blindness, intellectually an entirely conceivable state, and causing to develop in the subject a strong, unpleasant affective reaction. This, in turn, would lead to a ready acceptance of any suggestion affording relief from the emotional distress arising from the subjective blindness. There followed a restoration of vision with the relief from the emotional distress of subjective blindness made indirectly and unnoticeably conditional upon the acceptance of direct suggestions of color blindness. Thus, any critical intellectual tendencies would be held completely in abeyance by inner forces deriving from the emotional needs of the subject, these affective needs compelling the subject to accept color blindness suggestions in full as the only means of securing affective comfort. Hence, there could develop neither the occasion nor any need to bring about an adjustment between the critical faculties and the suggestions of color blindness, since the subject's primary purpose and object became the seeking of affective satisfactions and not the consideration of an intellectual problem. Thus, the color blindness suggestions became possessed of legitimate and essential values for the subject, enforcing their acceptance.

Having secured the acceptance of the suggestions of color blindness as an integral part of the satisfaction of significant affective needs, the next step lay in the development of a mental state approximating that of the color blind person to whom colors are nonexistent as perceptions, require no differentiation from each other, and have no direct associations or connotations. To develop this mental state, an extensive amnesia was suggested for the chosen color or colors together with all color associations and connotations. Such an amnesia is, in itself, entirely acceptable to the critical intelligence, and it serves to effect a complete, although indirect, disregard of or lack of response to the specified color, permitting the same behavior or lack of behavior as would derive from absolute color blindness. By this measure, presumably, all perceptual values would become inactive and hence lost, without there being any need for a negation of seeing or an avoidance of seeing. This constitutes, essentially, a situation comparable to that obtaining in the color blind. The color stimulus of the plates is present, but it arouses no responsive activity because of the indirect blocking of the capacity for response through the loss of perceptual qualities effected by the amnesia. This loss of perceptual values may be taken psycho-physiologically as constituting a raising of the sensory threshold to the critical color.

In consequence of the failure of capacity for response to the stimuli emanating from the critical color, the subjects respond as if there existed no such color, and the character and nature of their responses are determined by those stimuli which do possess perceptual values. Particularly favorable to the possibility of this type of responsive behavior is the intrinsic nature of the Ishihara Test, which causes any alteration of its stimulatory values to be reflected indirectly by an adequate and different response, precluding an indirect sensing of any deficiency or incompleteness.

In illustration of these assumptions concerning the loss of perceptual and conceptual values, the following findings made on one of the subjects employed in the preliminary clinical experimentation may be cited. Red blindness had been suggested to him, and, as a means of distracting his attention from the problem in hand, he was asked, by chance, to count aloud various objects, beginning with his fingers. There followed a bewildering experience for both the experimenter and the subject, since the latter, in counting his fingers, totaled them as 11, although he declared that there were and could be only 10. Closer attention disclosed that he consistently omitted the "3" in his counting. More than an hour was spent letting the subject try to solve this problem of 11 fingers by count, 10 by knowledge, 6 on each hand by count, 5 by knowledge, 10 when counted by twos and 11 when counted singly. Repeatedly he narrowed the problem down to "2 fingers plus 2 fingers equals 4 fingers, which brings you to the index finger, but when you count them singly, you come only to the middle finger," and he would then start fresh in his reasoning.

Finally, he was told to abandon this "puzzle" and was given reading and number cancellation tests. The word "three" was regarded as a misprint of the word "tree" or as a nonsense syllable which he would pronounce correctly, and the numeral "3" was either misread as an 8, where the type style permitted, or was regarded as a nonsense character.

Extensive questioning and investigation disclosed other and innumerable losses of the conceptual values of 3 and its derivatives.

Return was then made to the original problem of red blindness. He was found to be red-blind, his responses being almost identical on the Ishihara Test with those of Subject *F* for the same suggested blindness. Plate 2, however, was read as an "incomplete 8, or part of a *B*."

Hypnotic suggestions were then given, restoring the conceptual significances of "3." Re-administration of the Ishihara Test disclosed normal color vision. Further experimental investigation disclosed an absolute interdependence between red color vision and the conceptual significances of "3" of such character that suggestion directed to one would affect both.

Subsequent inquiry elicited the following significant explanation:

The number 3 is red to me. I can't see a 3 or even think of it without thinking or seeing or feeling red. There's a lot of words that are colored to me. Ideas, feelings, too! I can't explain it. It's always been that way with me.

This accidental finding led to rapid progress in the development of an experimental procedure. The inclusion in the experimental technique of suggestions affecting conceptual values was found to enable induction of color blindness in subjects previously resistant, and repeated clinical experimentation with the preliminary group of subjects led finally to the acceptance of the procedure described above.

## **2. Comments on Experimental Findings**

In discussion of the actual experimental results, one of the first considerations is the character of the findings. Study of the data, both control and experimental, indicates definitely that the findings are attributable directly to the experimental measures employed and do not reflect incidental or chance factors. It discloses further that, while both positive and negative results were obtained, the significance of the negative findings is confined to an indication of the incompleteness with which the experimental object was attained, and does not constitute a contradiction or indicate an inherent limitation of the experimental methods and objectives. As for the positive results, these are clearly definite and unequivocal in character and show that the demands of the experimental situation were actually met in accord with the measures employed. Visual perceptions, ordinarily possible only to the color blind and demonstrated as impossible under ordinary conditions to the subjects, were elicited repeatedly from each of the subjects under the experimental conditions. This fact constitutes the primary and significant finding of the experiment.

The intrinsic nature of the Ishihara Test is such that it permits a variety of possible responses for each test instance, but without affording any opportunity for a deliberate, purposeful selection of responses. Each of the possible responses is adequate and complete in itself, meets fully the demands placed upon the subject for a response, and carries its own significance. Also, any combination of the possible responses that may be given by the subject bears a positive meaning peculiar to such a combination. Furthermore, this variety of responses depends upon the existence within the subject of certain absolute conditions, with most of the responses possible only if the subject fulfills those requisite conditions. Yet, throughout the experiment, responses were elicited consistently and repeatedly of a character possible only if the absolute requirements of the test were met adequately by the subjects. Since such responses were obtained repeatedly from all of the subjects, and since these responses varied appropriately in accordance with the theoretical demands of each experimental situation, the findings may be regarded as clearly similar or comparable to those obtainable in various conditions of defective color vision.

The next problem concerns the possible mechanisms or psychological processes by which the experimental findings were obtained. This requires consideration of the nature of the experimental procedure, the character of the stimuli employed, the character of the responses obtained, and the associated and underlying psychological conditions entering into those results.

As has been indicated above, the hypnotic measures employed undoubtedly played a significant, though indirect, role through an inhibition of various mental processes and activities which ordinarily would interfere with the performance of the suggested task. This inhibition, restriction, or limitation of various activities related entirely to conceptual and perceptual values of a chosen color or colors, but left the subject free to respond to the stimulatory values deriving from other colors or from the lack or absence of color values, or from other indirect stimulatory values such as brightness.

To illustrate from the experiment, the suggestion of red blindness effected an inhibition of all responses to redness, but left the subject free to respond to brightness, blueness, etc. Hence, in looking at a test plate weighted with red values, the retinal stimulation deriving from the redness could not lead to perceptual or conceptual response in the subject with suggested red-blindness, because of the inhibitions in force. While the other stimulatory values would lead freely to responsive activity. Thus, the visual image obtained would be dominated by those stimuli actually secondary physically to the redness, and they alone would serve to give a meaning to what was seen. In other words, there occurred a relative raising of the red thresholds.

Concerning the character of the stimuli, little can be said, since regardless of the hypnotic suggestions and induced mental states, color stimulation of the retina did occur and the subjects did possess normal color vision. However, the assumption is warranted that in normal color vision, the visual image is the result of various fusion processes involving all retinal stimuli, and hence that the normal person receives the same stimuli as does the color blind, but in addition, other stimuli which actually dominate the entire situation and determine the nature and the character of the response. But in the hypnotically color blind, apparently, despite the complete retinal stimulation, only certain stimuli served to arouse responsive activity, with the consequence that the responses aroused were limited in character though adequate for the total situation.

As stated above, the responses obtained were both positive and negative for color blindness, with those positive clearly indicative of definite alterations of color vision perception, while those negative suggesting an inadequacy of the experimental method. Particularly is this suggested by the variations of response to a single test plate from one state to another of suggested color blindness, as shown in the tables of the individual responses and in Table 7. Responses elicited in one state of suggested color blindness did not necessarily develop in another state, although there was a marked trend toward a persistence and increase of color blind responses directly proportional to the extensiveness of the color blindness suggested. This variation of responses for different states of color blindness indicates that the responses were a direct, if not a complete, function of the suggested condition. This is best illustrated in Table 8, which shows one red-blind and one green-blind response for green blindness, eight red-blind responses for red blindness, eight red-blind and two green-blind responses for red-green blindness, and four red-blind and five green-blind responses for total color blindness.

Also in this connection, study of the distribution of responses by subjects in connection with Table 1 does not indicate, so far as can be determined, any practice effect accruing in consequence of the order of suggestion of color vision defects.

Concerning the associated and underlying psychological conditions entering into the results, consideration must be given to the changed mental perspectives afforded by both the amnesia suggested and the loss of color values. All of the female subjects manifested discomfort and even distress over their dresses, which they declared were not their own. The examining room, actually familiar to them, was described as similar to the experimenter's "regular office." but "much different in many ways" and totally

unfamiliar to them, and they were observed to build up an orientation for the examining room by checking their observations with their memory of the "regular office." Their entire behavior reflected the reactions of a new experience. Their reaction to the test plates may be summarized in the following quotation from one of the subjects:

This is the fourth time I've been here, and each time you've shown me a pack of cards, twice each time. But the next time I come, it's a different pack. You see, there's a No. 12 (Plate 1) in every pack, and I keep watching for it to see if it is the same card that you slip from one pack to the next, but each time it's a different card even though the number is the same. I wonder just how many of those cards you're going to have.

Obviously, the personal situation for each of the subjects constituted a new and unfamiliar experience to which they could respond adequately but without utilizing certain associations, memories, and learned responses. Questioning of the subjects in the experimental situations could not be done because of the possibility of disturbing established conditions, and post-experimental questioning was postponed until it was clear that no further work would be done, thus precluding more than a retrospective account. However, a general statement is warranted that the experimental experience was entered into as a totally new experience, and the extent and effects of this can only be speculated upon in the light of general clinical understandings.

While discussion has been offered of various psychological aspects of the experimental findings, the problems remain of their interpretation in terms of how they were elicited and of the actual neuro- and psychophysiological process entering into their production. Much of the discussion above may be taken to indicate that psychological processes and mechanisms constituted the primary factors, and the illustrative case of synesthesia tends to confirm this possibility. The probability is, however, that these psychological considerations constituted no more than a favorable setting in which various neuro- and psychophysiological processes could be aroused into activity by indirect forces, and that these resulting activities constituted the primary factors in the manifestation of limited color vision. Hence, any satisfactory interpretation of the experimental findings must be based primarily upon the elucidation of the underlying neural activities.

That such an elucidation, however necessary and important, can be made is questionable. The exceedingly complex character of the experimental procedure, the complicated intrinsic nature of the color vision test plates, the limited number of subjects, and the irregularity, despite their general consistency, of the individual findings all serve to make difficult and uncertain any attempt at interpretation. In addition, the present limited knowledge of the functions of color vision and the neuro- and psychophysiological processes entering into it, the uncertainties regarding the respective roles of peripheral and central activities, and the lack of understanding of the nature of color vision, except in general terms, also serve to preclude an interpretation of the experimental findings in terms of neural activities.

However, one general interpretation in the form of the conclusion is warranted, namely, that the findings demonstrate clearly that cortical processes and activities can play a highly significant role in color vision and can effect results similar if not identical with those based primarily upon peripheral activity and conditions.

## **E. CONCLUSIONS**

The conclusions warranted by the experimental findings on these six subjects may be listed briefly as follows:

1. Color blindness-red, green, red-green, and total in character-as determined by the *Ishihara Color Blindness Test*, was hypnotically induced in subjects known to have normal color vision and who were found to be unable under ordinary conditions, either spontaneously or responsively, to meet the test criteria for defective color vision.
2. No conclusion can be offered concerning the psychological mechanisms and the neuro- and psychophysiological processes involved in the production of the suggested color blindness.
3. The significance of the findings lies in their evidential values concerning the importance of cortical processes in color vision.

## **F. SUMMARY**

An experimental hypnotic technique was devised involving the suggestion separately of red, green, red-green, and total color blindness, each accompanied by an amnesia for all conceptual significations of the critical color or colors. Six persons having normal color vision were subjected to this experimental procedure, and administration of the *Ishihara Color Blindness Test* disclosed them to have developed definite alterations in color vision comparable in degree and character with actual color blindness. Application of control measures disclosed the subjects to be unable to duplicate or even to approach, under ordinary conditions, their experimental behavior. Comment is made upon the rationale of the experimental procedure, the psychological processes and mechanisms entering into the production of the results, and emphasis is placed upon the need for more adequate knowledge of the neuro- and psychophysiological processes involved in color vision before an interpretation is made of the experimental findings. A final conclusion is offered that cortical processes and activities, as evidenced by these experimental findings, have a definite though undefined significance in the problem of color vision.

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<sup>1</sup>In compiling each of these tables, various abbreviations have been used. For the convenience of the reader, these may be listed as follows:

- N—normal.
- R—red blind.
- G—green blind.
- RG—red-green blind.
- T—totally color blind.

0—plate described as blank.  
N/T—either normal or totally color blind.  
5? —numeral read uncertainly and with difficulty.  
2/6? —first digit read easily, second with difficulty.  
5, 6—both numerals seen equally well.  
? —numeral seen vaguely but not clearly defined. In column headed, "Plate Explanation," it signifies, "Read with difficulty if at all."  
Inc.—incomplete.  
Comp.—complete.  
Resp.—response.  
Rat.—rating.  
D—doubtful.

<sup>2</sup>Tables 3 through 8 will be found following page 32. [not included in this publication]

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# An Experimental Investigation of the Hypnotic Subject's Apparent Ability to Become Unaware of Stimuli

Milton H. Erickson

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The experimental study of the unresponsiveness of deeply hypnotized subjects to stimuli ordinarily effective and, conversely, their responsiveness to suggested but not real stimuli is a most difficult problem. Aside from the complexity of such phenomena, the subjects' necessary awareness and understanding of what they are or are not to do in such experimentation raises the important question: In what part are the experimental results to be attributed to actual experiential process of behavior within the subject, and in what part are they indicative only of the subject's full cooperation in manifesting that type of behavior proper only to the actual achievement of the suggested task?

For example, a cooperative subject who accepts the hypnotic task of becoming unaware of the presence of a third person may presumably become actually unaware of that third person, or despite an awareness, may behave in strict accordance with a lack of such awareness. Thus, in one instance his behavior seemingly is that of no response, and, in the other, that of successfully inhibited responses. But this is an oversimplification of the problem. Hence, for lack of more definitive language, examples of comparable behavior from common experience will be cited for their pertinency and because they illustrate various important considerations for an adequate understanding of this total problem.

The first of these relates to a man reading a book who may falsely believe himself to be alone. While so absorbed, he may respond to a gentle touch as if it were an itch and react adequately to this understanding of the stimulation by scratching behavior. His responsiveness to the stimulus in no way destroys or alters his unawareness of the presence of another person. Or he may behave as if annoyed by a fly, thus recognizing the external character of the stimulation but still making a mistaken response to it. Such stimulation may be repeated until its persistent recurrence compels another type of response. If this new response leads to an awareness of the presence of another, the startle or fright reaction may be regarded as an outward culmination of the experiential process of developing that awareness.

A second example is that of the tired mother who sleeps soundly despite disturbing noises. Nevertheless, at the slightest cry from her baby she rouses at once. Thus, in relation to certain types of stimuli she is unusually alert despite her unresponsiveness to other and even similar stimuli.

A third example is that of the ability of jute mill workers and boiler factory employees to carry on conversations in relatively normal tones of voice despite the shop din. The newcomer in such a situation, as personal experience has repeatedly disclosed, is often

unable to hear clearly even loud shouting. With experience, however, one can learn to disregard the disturbing noises and to carry on conversations without undue effort and strain.

Discussion of these examples is difficult. Not only does their complexity present serious obstacles to investigative study, but any awareness by the subjects of an experimental approach to such behavior would alter completely the situation for them and militate against reliable and informative findings. Thus, one cannot determine how subjects would behave when they mistakenly believe they are alone if they know that they are mistaken in that belief. Nor can subjects' lowered thresholds for certain stimuli be tested satisfactorily as such if they expect to be tested for alertness to those special stimuli. Indeed, it is axiomatic that subjects in an experimental situation in which they know what is expected of them tend to behave in accord with the experimental demands. In such a situation any findings made are the result of both the experimental procedure and the subjects' readiness to yield such findings.

Hence a naturalistic as opposed to a frank experimental laboratory approach is essential to a study of various psychological phenomena. Especially is this true in relation to many hypnotic phenomena wherein a subject's mere readiness to behave in a certain way may yield the same outward objective findings as would result from actual experimental processes of behavior. All the more so is the naturalistic approach indicated when the introduction of experimental methods or any awareness that behavior is being systematically studied may lead the subjects to cooperate for the purposes of giving the "scientific" results apparently desired.

In this account it is proposed to report the procedures and results obtained in investigating certain hypnotic phenomena often described categorically as "selective sensory anaesthesias." In all probability, such a descriptive term is not necessarily applicable since, as one subject aptly declared, "It is not a question of being unaware of stimuli but, rather, a giving of all attention to certain stimuli or to certain aspects of a stimulus complex without other stimuli entering into the situation." The pertinency of this statement is readily appreciated in relation to the first example from common experience cited above.

The investigative procedure used in this study was a combination of both the naturalistic and the direct experimental approaches carried out in an informal social setting. So far as the subject was concerned, the purposes to be served were obvious and understandable and only related to the social situation, and full cooperation was readily given. However, the subject did not know that the apparent purposes were only secondary to unrealized and actually experimental objectives. Indeed, in the second account the experimenter himself did not realize that a second behavioral development was taking place until the results disclosed the fact, following which there was a simple utilization of the spontaneous developments.

In both accounts the experimental objective was the investigation of the hypnotic subject's ability to become unresponsive or unaware, at both visual and auditory levels,

of the presence of selected persons at a social gathering. In the first report the subject was given full instructions to become unaware of a certain person, and after these suggestions had been repeated adequately and what was considered a sufficient amount of time had elapsed, they were intentionally made inclusive of a second person. So far as the subject was concerned, the object in mind was a demonstration for a social group of his unawareness of the presence of those two people. The actual experimental purpose was to contrast his behavior in response to each of those persons and to determine if the element of time itself played a significant role in the effectiveness with which he performed his task.

In the second report the original purpose was merely a demonstration in a social situation of somnambulistic behavior. Fortunately a chance incident so altered the demonstration situation that, contrary to all suggestions given to the subject, an unexpected demonstration was given of "selective deafness" and "selective blindness."

As a necessary preliminary to the presentation of these reports, a short discussion will be offered of a serious misconception of hypnosis frequently encountered even among those who have had extensive experience. This misconception, briefly stated, is that hypnosis in some particular, undefined fashion necessarily deprives subjects of their natural abilities for responsive, self-expressive, and aggressive behavior, and limits and restricts them to the role of purely passive and receptive instruments of the hypnosis.

The fact that receptiveness and passivity can be used to induce those processes of behavior that result in a trance state does not signify that they constitute essential criteria of the trance condition itself. Rather, there should be recognition of the fact that the general tendency of the hypnotic subject to be passive and receptive is simply expressive of the suggestibility of the hypnotic subject, hence a direct result of the suggestions employed to induce hypnosis and not a function of the hypnotic state.

Nevertheless, the mistaken assumption is often made that hypnotic subjects must display the same passive receptive behavior when in a trance that they displayed in the process of going into the trance. The fact that the hypnotic subject's psychological state of awareness has been altered constitutes no logical barrier to any form of self-expressive behavior within the general frame of reference, and experience discloses that, in addition to their usual abilities, hypnotic subjects are often capable of behavior ordinarily impossible for them.

In the following experiments utilization has been made of the ability of hypnotic subjects to behave in full accord with their natural capacities. This was accomplished by a training procedure of first hypnotizing them deeply by a prolonged laborious technique that did not demand immediate results. Then situations were devised in which the subjects had ample time and opportunity to discover and to develop their abilities to respond to the demands made of them with as little interference from the hypnotist as possible. After such preliminary training in hypnosis, experiments like the following can be conducted with relative ease.

In accord with the informal social situation in which they were conducted, both experiments will be reported in narrative form to permit greater comprehensiveness.

## **EXPERIMENT NO. I**

During the course of a demonstration of hypnotic phenomena before a medically trained group the question of "negative hallucinations," that is, the inability to perceive actual stimuli, was raised privately to the hypnotist. After some discussion out of the subject's hearing concerning the validity of such phenomena, it was decided to conduct an experiment for the group in the form of a simple demonstration.

Accordingly, the subject was deeply hypnotized and a somnambulistic state induced. She was instructed to look about the room carefully and to become fully aware of those present. After she had scrutinized everyone carefully and identified them by name, she was told that shortly she would discover that Dr. *A* had left. Indeed, it was emphasized that soon she would realize that she had been mistaken in thinking that *A* had been present. Finally, she was told that she would really know that *A* had originally intended to be present but that he had failed to arrive. This fact, it was explained, would account for her original impression that he had been present. These instructions were systematically repeated in various forms with increasing emphasis upon her full realization that *A* had not been there and that in all probability he would not be able to appear.

In the meanwhile, acting upon instruction, *A* withdrew quietly and unobtrusively into the background, where he remained out of range of the subject's vision.

When it seemed that the subject understood fully the suggestions given to her, she was kept busy with various attention-absorbing tasks for about 20 minutes. She was then reminded in a casual fashion that *A* had originally intended to be present but that he had been unable to come and would probably not be able to attend at all. When she nodded in agreement, the original series of suggestions was repeated, but this time in connection with Dr. *B*. When this second series had been fully impressed upon her, she was again given attention-absorbing tasks for two or three minutes while *B*, even as had *A*, remained quietly in the background. Then the same casual general reminder previously made in relation to *A* was repeated in connection with *B*.

Thus, approximately 25 minutes and 5 minutes elapsed from the giving of the suggestions relating respectively to *A* and to *B*.

Thereupon her attention was directed to the group and she was asked to identify those present. This she did readily, omitting, however, both *A* and *B*. The group was then told quietly to challenge her statements and to break down her exclusion of those two gentlemen.

Very shortly it became apparent that there was a marked difference in her behavior in relation to *A* and *B*. She was apparently completely unaware of *A*'s presence and entirely at ease in offering the false explanation that had been given her, nor did she show any

evidence that his absence could be regarded as a debatable issue. In no way did she disclose any awareness of his presence.

In relation to *B*, however, her behavior was decidedly different. There were definite avoidance responses, evidences of confusion and blocking, and she seemed to be uncertain about the situation although emphatic in her assertion that *B* was not present. It was noted that, when told to look in his direction, there was a marked tendency to glance aside, or in looking slowly about the room, to skip *B* by a quick glance past him. None of this behavior was apparent in relation to *A*.

Upon a signal both *A* and *B* joined in the general conversation. To *A*'s voice no response of any sort could be detected by the group. To *B*'s voice many partial responses were made, such as a slight involuntary turn of her head, puzzled looks, a spontaneous statement that she thought she heard someone speaking, and that she felt uncomfortable, that is, as if all were not right. She resisted successfully the efforts of the group to break down her expressed conviction that *B* was not there, but her behavior was suggestive of resistance to the development of an awareness, or of an inhibition of responses.

In connection with *A*, however, she displayed no need to resist since, for her, he simply was not there. In other words there seemed to be neither responses nor need to inhibit responses.

After about 10 minutes of such investigation the subject was again busied with various attention-absorbing tasks for 15 or 20 minutes. Then again the group was told to investigate the situation.

This time there was found to be no difference in her behavior in relation to both *A* and *B*. So far as could be determined, she made no response of any sort to their presence. There was no avoidance behavior, no uncertainty, and no evidence of mental strain. She readily recalled the previous questioning and related that at that time she had had an uncomfortable feeling that *B* might have arrived without her awareness and that this feeling had made her uneasy about the questioning and uncertain in her replies. She also recalled having thought that she had heard his voice, but she attributed this to her general state of confusion caused by her conviction that he was not there and a feeling that he might be secretly present.

When *A* and *B* joined in the questioning and discussion, none of the previous partial responses to *B*'s voice were made. Her behavior was as if they were actually absent.

Upon signals both *A* and *B* lifted her arm and shook hands with her. She became aware of this at once, looked down at her hand each time with an expression of amusement and interest. Questioned by the group about this, she explained with simple earnestness that in all probability she had been given some posthypnotic cue which had caused her unconsciously to respond as if she were shaking hands with someone. Her only uncertainty was whether or not there had been an actual movement of her hand or just an hallucinatory experience.

Promptly both *A* and *B* shook her hand again, and she explained that it was a genuine motor and visual experience even though the tactile sensations were hallucinatory, since there was nothing touching her hand. In responding to the questions of the group, she made no effort to look around the body of either *A* or *B* but seemed to be looking through them. Questioning by the group elicited her understanding that a nodding of my head, actually a signal to *A* and *B*, was a signal for her to undergo some planned hypnotic experience, which she had now discovered to be the hallucination of shaking hands with someone.

(As a parenthetical insert in elaboration of this point, an account may be given of results obtained from a number of other subjects. Instructed to remember carefully that a member of the audience was sitting in a certain chair, the subject would thereafter continue to see that person in the specified chair despite a change of position. The subject, however, would readily detect the alteration in the location of that person's voice resulting from the change of position. Usually the subject responds to this situation by scrutinizing the chair and the source of the voice alternately. Several outcomes are possible. The subject may rationalize the altered location of the voice as an inexplicable phenomenon with a failure to see the person in the new position and with a substitution of a memory image for the actual person. Or the subject may discover that there has been a change of seat and will call the hypnotist's attention to the matter so that further instruction may be given. A third and not infrequent development for the subject is to discover the person sitting in both places and become confused as to which is the real person. In subjects trained in psychology or psychiatry this becomes an interesting phenomenon to observe. The usual procedure followed by subjects is to suggest to themselves that the person is to make some movement or to perform some act. The visual image does, and the real person does not. Occasionally the subject merely studies the two figures to see which one tends to fade and blur, and this is recognized as the visual image.)

The subject was instructed to perform aloud simple sums in addition, the numbers to be suggested by the members of the group. After a dozen such additions had been rapidly called to her, both *A* and *B* separately called numbers to her. No response of any sort could be detected. She merely sat quietly and expectantly, waiting for those members of the group who were present for her to call problems for her. Several repetitions of this failed to elicit responses to *A* and *B*. Nor did the measure of having *A* and *B* call the same and other numbers in unison with the others serve to confuse her. Apparently she was selectively deaf to both of them.

Advantage was taken of a telephone call to tell her that both *A* and *B* would arrive in exactly five minutes, and her attention was directed to a clock. In about five minutes she was observed to turn her head toward the door and to go through the behavior of watching somebody enter the room. Close observation of her eyeballs disclosed her to be watching apparently hallucinated figures entering the room and to be glancing over the available chairs. She was observed to go through the process of letting one select the chair where *A* was really sitting and the other select the chair where *B* was sitting. She

greeted them courteously and then her eye movements disclosed her to be watching them sit down in the selected chairs. Thereafter, both were fully present for her.

(A second digression is necessary in this regard. Approximately 50 persons, most of whom had seen this type of hypnotic behavior but who had not been hypnotized, have been asked to duplicate it in detail or to perform a comparable act. One simple procedure easily described is as follows: The unhypnotized experimental subjects are instructed to behave as if a selected third person actually present is not present, and after they feel confident of their ability in this pretense, they are instructed to hallucinate or fantasy a picture of that person hanging on the wall. The unhypnotized subject goes through a mental process of hanging a fantasied picture with regard for good spacing on a wall usually remote from the third person. There is a definite quality of avoidance of the real object in his behavior.

The hypnotized subject, however, given the same task, hangs the hallucinatory picture on the wall in close proximity to the person presumably absent and with a disregard for proper spacing. Usually the hypnotic subject recognizes that the picture should be hung elsewhere with regard to proper arrangement but explains that for some inexplicable reason it seems best to put the picture where he has placed it, actually in proximity to the supposedly absent person. Thus, in contrast to the unhypnotized subject, a utilization of the real object rather than an avoidance response is made.)

Subsequently the subject was questioned under hypnosis about these experiences. She explained that, in relation to *A*, she had been convinced at first that he was present. This had been followed by a state of mental confusion and uncertainty about his presence. Shortly this confusion had resolved itself into a realization that *A* was not present but that she had only expected him to be there. While these ideas were developing, she had recalled identifying someone as *A* and this had caused her some feeling of embarrassment and made her hope that no offense had been taken. This feeling of emotional distress had made her wish that the author would proceed with whatever plans he might have.

Then, when suggestions were given her about *B*, a similar train of events began to develop, but while she was still confused and uncertain about him, the group began to question her. This had added to her confusion and uncertainty and had made her most uncomfortable, a fact she had labored to conceal. The questioning about *A* she had not been able to understand since it seemed to be out of place and without basis, since she was certain no one could know about her previous misunderstandings.

Following the interlude in which she had been asked to read aloud, this general confusion about *B* and her vague impressions of having heard his voice disappeared, and she found herself at a loss to understand the purposes of the group in questioning her further. Not until the "hallucinatory" handshaking occurred did she realize that a hypnotic demonstration was occurring. With that understanding she had developed a mild passive interest in the situation and had tried to meet whatever demands were made upon her as adequately as possible, since this understanding explained fully her previous states of confusion.

No effort was made to correct these misinterpretations of the total situation. Rather, it was left open on the possibility of future experimental developments.

## **Summary**

This account may be summarized best by itemizing in chronological order the experimental developments.

1. A deeply hypnotized subject in a somnambulistic trance was instructed to become unaware of the presence of a selected person.
2. After proper suggestions to this end a period of 10 minutes was allowed to elapse as a measure of permitting the subject to develop that “mental set” or the neuro- and psychophysiological processes necessary to such a state of unawareness.
3. The subject was instructed as previously to become unaware of a second person.
4. A period of time considered too brief for the development of a mental set was allowed to elapse.
5. Tests were made for behavioral responses in relation to the two selected persons.
6. The subject showed no responses to the first person but made many partial responses and avoidance reactions in relation to the second person.
7. A sufficient period of time was allowed to elapse for the development of the proper mental set in relation to the second person.
8. Testing disclosed the subject to be equally unresponsive to and unaware of both persons at visual and auditory levels.
9. Tactile stimulation by the selected two persons was misinterpreted as hallucinatory experiences possibly deriving from posthypnotic cues.
10. The subject hallucinated the arrival of the selected persons and reestablished contact with them.

11. Subsequent questioning of the subject under hypnosis disclosed a persistence of an understanding of the total situation in full accord with the hypnotic suggestions and not in accord with the actual facts.

## **EXPERIMENT NO. II**

Before a group of associates in the author's office a well-trained subject was hypnotized deeply and given instructions to develop the somnambulistic state. Additionally, he was told that upon the development of this somnambulistic state he was to establish full contact with the group and to act in every detail of his behavior as if he were actually wide awake. Thus, by his behavior, conversation, and participation in group activities he was to convince everybody that he was unquestionably wide awake and not in a hypnotic trance. However, he was told that, when questioned directly as to whether or not he was in the trance, he was to reply honestly, readily, and directly.

After these suggestions had been repeated several times to insure his full understanding, and after he had been given about 20 minutes while he was sleeping deeply in which to mull them over and to develop what may conveniently be called the mental set essential to their performance, he was told to proceed with his task.

The subject responded by lifting his head, yawning, stretching, and remarking that he felt rather sleepy, that apparently it was up to him to be a bit more lively.

This subject had a very charming personality, was a pleasing conversationalist, alert, responsive, and possessed of good wit and high intelligence. Immediately one of the group asked him if he was asleep, to which the subject replied:

Yes, I'm very much asleep, sound asleep in a trance state, but you'll never be able to detect it. In fact, you're going to have a hard time proving in your own mind that I am asleep, but if you wish you can ask Dr. Erickson or you can ask me, and we will both tell you the truth, which is that I am in a deep hypnotic trance.

Would you like to talk to me and find out how a hypnotized subject can talk and act even though asleep?

For about an hour the subject kept the group busy asking questions or responding to questions put to him, and the range of conversation was very wide. Books were discussed, the typewriter in the office was used by the subject upon request, jokes were told, and the subject's alertness and responsiveness to everything occurring in the office was repeatedly demonstrated by him. Nevertheless, at every straightforward question about his status, the subject replied with the simple factual statement that he was in a trance, and, to the experienced hypnotist, there were many indirect evidences of this fact. Usually when this question was asked of him, after making his straightforward reply, the subject would make his questioner the butt of jesting remarks. At the end of an hour a medically trained colleague, Dr. C, who had had no experience with hypnosis, stepped

into the office, remarking that he had heard the sound of laughter and conversation and he wanted to know if a hypnotic demonstration was taking place. The subject responded at once by asking *C* if it seemed to him that anybody appeared to be hypnotized. *C* answered in the negative, but added that he hoped he might have the chance to see hypnosis. To this the subject replied with the ambiguous statement that his best opportunity was to observe what was going on, since the afternoon's plans called for nothing more than the present activities. Following this the subject and *C* engaged in a casual conversation on various items and shortly *C* left. The group then continued as they had before. Presently a second visitor, Dr. *D.*, entered the office. This doctor more or less regularly dropped in on Saturday afternoons, a fact well known to the subject, and hence he was not a totally unexpected visitor. As he entered the room and noted the group, he promptly asked if the author were demonstrating hypnosis. An affirmative reply was given, and the subject suggested, since he knew *D* very well, that look over the group and see if he could tell who might be a good hypnotic subject. *D* promptly replied that he knew the subject himself was well trained and that two others in the group had also been hypnotic subjects, and therefore it might be any one of the three or for that matter someone else in the group. One of the others then spoke up and asked the visitor if he thought anybody in the room was in a hypnotic trance. Since *D* had done some hypnosis himself and had often seen some of the author's subjects in somnambulistic trances, he glanced carefully about the room, sizing up each individual present, verbalizing comments as he scrutinized them and carrying on a casual conversation, asking general questions about how long the group had been gathered in the room, what work they had been engaged in during the morning and similar items. Finally he remarked that if he were pressed to venture a guess, he would select the subject as the most likely choice for the afternoon's work and that he felt that this choice of possible subjects was probably in a somnambulistic state at the actual moment. Immediately the subject asked him to justify his guess. *D*'s explanation was that there were certain rigidities in the subject's movements, a loss of associated movements, some lag between his speech and his gestures and head movements and a marked pupillary dilation. He also explained that the subject moved his arms and walked very much as if he were in a trance state. As *D* made these remarks, the subject slowly flushed, turned to the author apologetically, and expressed his regret that he had failed to obey instructions completely. Then turning to *D*, he confirmed *D*'s guess and admitted that he was in a somnambulistic state. The subject was comforted about having betrayed himself by the author's pointing out that *D*'s own experience had enabled him to recognize certain evidences of the trance state ordinarily overlooked.

After a brief chat *D* left and the group then busied itself with attempts to detect alterations in the subject's motor behavior. The two other subjects soon demonstrated an ability to single out some of these behavioral alterations, but the rest of the group experienced difficulty. Furthermore, as this investigation continued, the subject became increasingly successful in simulating the motor behavior of a person fully awake. Eventually he succeeded in interesting the group in a general conversation, and this was allowed to drift along ordinary social channels.

Unexpectedly a third visitor, Dr. *E.*, from out of town and whom the subject did not know, dropped in for a brief visit while on his way to Detroit. This arrival was totally unexpected by the author. Hence it differed markedly from the visits of *C* and *D*, inasmuch as they constituted something entirely within the usual course of events. For this reason their visits could be regarded as legitimate extensions of the total office situation. The visit by *E* belonged to another and totally different category of events and could not be expected to occur. It was entirely outside the range of the situation the subject had been asked to meet. As this visitor approached the office door, which had been left open, his arrival was noted and he was immediately signaled to be quiet and to wait outside the door and to keep out of visual range of the others present. Watching for opportunities when the subject was engaged in discussing matters with one or another of the group, the author displayed to all except the subject a sheet of paper on which was written, "Ignore our new visitor, do not disclose any awareness of his presence." When all of the group had been warned and the subject's attention was distracted, the visitor was signaled to enter the room. He did so quietly and took his seat on the edge of the group. The subject was allowed to finish the discussion in which he was engaged with one of the group and then he was asked to review the course of the afternoon's events, the seeming purpose being to summarize them for the benefit of the group.

Promptly and adequately he reviewed the entire course of the demonstration. During this discourse he was asked repeatedly to point out where the various members of the group had been sitting at different times. When he came to the time of the entrance of *C*, he pointed out how *C* had stood beside the secretary's desk alongside of which was now sitting *E*. He was asked why *C* had remained standing when the secretary's chair was available, but he explained that *C* had undoubtedly been busy and did not want to stay long enough to take a seat. He then continued his discussion up to the point of arrival of *D*. He flushed as he recounted *D*'s recognition of his hypnotic behavior, and among other things, related that *D* had sat in the chair where *E* was then sitting. He was asked if he were sure that the chair had remained constantly in one position throughout the entire time. He declared this doubtful since it was a swivel chair and since *D* had swung around repeatedly as he talked to the various members of the group. At no time did he become aware of the presence of *E*. When the subject had completed his summarization, it was suggested that the group continue as previously.

When the subject's attention was taken up by a discussion with one of the group, *E* was signaled to join in the conversation. He did so readily, timing his remarks to coincide with those of another speaker. The subject replied readily to the other members of the group and did not seem to hear *E* or to be confused by the simultaneity of two utterances. This continued for some time but soon resulted in the group hesitating and faltering in their utterances when *E* spoke. This distressed the subject, and he began scrutinizing the various members of the group. Shortly he asked the author if there were something wrong. When asked his reason for this question, he replied that the others seemed to be ill at ease and uncertain in their behavior, that they turned their heads unexpectedly and then would halt the movement, that they did not seem to be acting normally. *E* promptly asked the subject what that might mean, but apparently the subject did not hear this question. The subject was assured that everything was all right, that he need not be concerned

about the group since everything was going along satisfactorily and that no matter what occurred it would all be of interest. Also, it was suggested that he might be interested to discover what the situation was. (The generality of these and other instructions and statements was intentional, the purpose being to give the subject free opportunity to become aware of E. Furthermore, it was expected that he would do so, since it was not realized how completely the subject had limited himself to the expected situation and thus excluded from awareness any unusual developments).

After still further conversation with the group, the subject turned again and stated that he had figured out the situation. The explanation he offered was in full accord with what he had seen at a previous hypnotic demonstration, and it was as follows: While his attention had been distracted, advantage had been taken of such an opportunity to induce somnambulistic states in all those present. He explained that repeatedly various members of the group would start to say something and then falter and hesitate, that they kept turning their heads and moving about in an uncertain way as if they were not quite certain what to do. This behavior, he added, was similar to that he had seen at other demonstrations when subjects had been induced to experience active hallucinations. He was asked if he were convinced of his explanation. Scrutinizing the group closely, he admitted that he did not see the usual evidences of the trance state, but that he could not conceive of any other explanation which would account for their peculiar behavior. After thinking still further on the matter he volunteered as a second possible explanation, that secret instructions to the group to act in this way might have been given without inducing a trance state, but he declared that he did not see how they could carry on such pretenses so effectively.

Here the question may be raised why the subject offered such a rationalization when he knew that he was in a trance state and hence that his state of awareness might be limited. The answer to this probably lies in the misleading effects of his previous experiences and in the fact that the total experimental situation compelled him to believe that he was fully aware of everything. Thus there was no recourse for him except to offer an explanation in terms of established understandings and not in terms of unfamiliar and unexpected possibilities.

The subject was asked if he were willing to continue with his task of behaving as if he were wide awake and giving no evidence that he was in the trance state.

He again expressed his willingness, whereupon he was told to continue but to take care that his general behavior in no way betrayed that he was in a trance state, although he was still, upon direct inquiry, to admit that he was hypnotized. The subject asked earnestly and worriedly if he were disclosing his hypnotic state by his general behavior, but was promptly reassured by the general statement that whatever happened would unquestionably be most desirable. Care was taken in this instance as well as all others not to limit or to restrict the subject's possible responses. Rather, reassurances and instructions were worded generally so that the subject was at liberty to make any response for which the occasion arose, and similarly all instructions were given in general terms to permit a spontaneous development of the situation.

Shortly he became interested in a conversation with a member of the group, and at once a signal was quietly given to *E*, who stepped over and lifted the subject's arm.

(To digress: Ordinarily there are two usual reactions to this type of maneuver. Either the subject may remain totally unaware of what has occurred and continue in his behavior without alteration except for the substitution of memory images of tactile and visual images to permit him to feel and see his hand and arm in the original position. If the enforced hand movements serve to disrupt his general posture and become too forceful, he tends to experience discomfort as if originating in the shoulder. From this point on he may proceed to discover the actual change in position of his arm, sometimes with and sometimes without an awareness of the person manipulating the arm.

Or he may immediately detect the arm movement, become puzzled, and proceed to attribute it to hypnotic suggestion or to determine the actual state of affairs, depending upon the nature of the experimental situation. In the present situation the subject was obligated to be aware of all motor behavior, hence his immediate response.)

The subject became aware at once that something was happening to his hand and arm. He flushed, glanced at the author in a somewhat frightened and guilty fashion, attempted to replace his hand in his lap, and then tried to resist the handshaking forced upon him. The silent, interested scrutiny of the entire group distressed him, and he explained in a worried fashion that he knew he should not display unusual motor behavior indicative of the trance state but that something had happened which he could not control and which he could not explain or understand.

In speaking and in glancing at the members of the group, he made no effort to look around *E* nor did he seem to be aware that *E* kept stepping in front of him to block his line of vision.

Urged to describe what was happening, he explained that it seemed as if somebody were manipulating his hand—that the texture of the skin and strength of the grip that he seemed to sense made him feel that some man whom he could not see was present and shaking hands with him. Instead of being given any reply he was asked if he were not, in utter violation of instructions, betraying by his general behavior that he was in a trance state. The subject flushed anew, and his face again became expressive of guilt. He protested earnestly that he was doing the best that he could, but the situation had become inexplicable to him and he did not understand what was happening unless the author had, in some indirect way, given him special cues or hypnotic suggestions for which he had an amnesia.

While the subject waited for some reassuring or comforting answer, the author turned aside, greeted *E*, and proceeded to introduce him formally to the entire group one by one. The subject watched this performance, apparently heard the remarks made and the replies of the group, but he gave no indication of hearing *E*'s acknowledgments. Finally, stepping over to the subject, the author introduced *E* by saying with a rising inflection of the voice, "And this is Dr. E." The subject merely repeated the words as if they carried no

meaning and stared blankly, making no response to *E*'s courteous acknowledgment of the introduction. Thereupon *E* clapped him jovially on the back. This caused the subject to whirl quickly in a startled fashion and to look about behind him. Seeing nobody, he stepped backward and leaned with his back against the bookcase as if protecting himself from further assault.

No further attention was paid to him for some minutes, and the entire group entered into a conversation with *E*. While they were so engaged, the subject was observed to study his hand, to move his shoulders as if to feel again the clap on the back, and then to study the behavior of the group and to repeat in a puzzled fashion the acknowledgments of the introductions made by the members of the group.

After some minutes of such intense study, with much puzzled looking at the author and at the group, the subject finally offered the explanation that everybody was acting as if someone else were present and that he himself had had tactile sensations such as would be experienced from actual contact with a person. He asked if this state of affairs was some sort of an experiment intended to induce him to hallucinate the presence of someone or if there were actually some person present unknown to him as the result of his being in a trance. He reasoned that this latter possibility was not readily tenable, since he had become aware at once of the arrivals of *C* and *D* and that, therefore, the present situation was best explained as a result of indirect hypnotic cues and suggestions given to him, supplemented by careful and secret instructions to the group regarding their behavior. This, he declared, was quite likely, since the afternoon session had been greatly prolonged, had dragged slowly at times, and furthermore the group at times had acted uncertain in their behavior, as if they did not know just what to do next. Even as he was making these remarks, *E* interrupted to explain that he now had to leave, made the appropriate remarks, and took his departure. The subject completed his remarks without noticing the intentional interruption by *E*, and seemed amused as he watched everybody apparently shaking hands with the empty air and saying good-bye. When, however, *E* stepped over and shook hands with him, he appeared at first bewildered and amused and satisfied. He declared that he was right in his guess, explained that the elaborate shaking of hands was nothing more than a beautiful build-up of indirect suggestions to induce him to do the same thing, and he expressed his pleasure in noting how adequately he had unwittingly responded.

Following *E*'s departure a general conversation was resumed, and after the lapse of half an hour the subject was awakened and thanked for his services. He was astonished to note the time and said that he hoped that whatever he had done during the course of the afternoon had proved satisfactory. Of this he was fully assured.

The next day and on several later occasions, indirect remarks were made to evoke associations that might disclose some recollections of his trance experiences. These elicited no positive results of any sort.

Subsequently he was hypnotized and asked to recall the events of that afternoon. This he did adequately, except that he disclosed no awareness that there had been a third visitor,

even though he recounted fully the seemingly inexplicable developments that had taken place.

Still later, in a deep trance, he was asked to do some crystal gazing and by this means to describe everything that had happened that afternoon in its correct chronological order. This he did adequately and in much fuller detail than he had previously recounted it verbally, but again there was the same awareness of the presence of *E*.

During the process of the crystal gazing he hallucinated the remarks of the group and was much impressed by what he described as the excellence of the performance of the group in acting as if someone else were present. He called attention repeatedly to the faltering and hesitation the group showed in speaking, as if someone else had started to speak at the same time. He also commented freely on the tendency of the group, as he visualized them in the crystal, to turn their heads and to speak as if they were addressing someone who was not present.

No attempt was made to give him a true understanding. He was thanked for his careful work in crystal gazing and asked if he were satisfied with everything. When he stated simply that he was, the matter was dropped with the hope that sometime later there might be other informative developments. However, to date, the subject remains, so far as can be determined, amnesic in the waking state for the events of that afternoon. In the trance state there is still a persistence of his original understandings.

## **Summary**

The experimental developments may be summarized by itemizing them in chronological order.

1. For purposes of a group demonstration in the author's office a deeply hypnotized subject was instructed to develop a somnambulistic state and in this state to simulate, as completely as possible, ordinary waking behavior but to state upon direct questioning whether or not he was in a trance.
2. After a lapse of sufficient time to permit the subject to develop what was considered an adequate mental set for this task he was told to proceed.
3. The subject appeared to awaken and participated readily and capably in group activities, impressing everyone with his state of ordinary wakefulness. Direct questions elicited the acknowledgment that he was hypnotized.
4. The subject became aware at once of the separate, unplanned, and unanticipated arrivals of two persons well known to him and who were frequent office visitors.
5. From one of these visitors, who had had no experience with hypnosis but who was well aware of the subject's hypnotic work, the subject successfully concealed his trance state.

6. The second visitor, like the first, was fully aware of the general facts about the subject and was, in addition, experienced in hypnosis. After careful study of the entire group this visitor recognized the subject's somnambulistic state and substantiated this discovery by pointing out significant characteristic hypnotic alterations of behavior.
7. After the departure of this visitor the subject, apologetic because of his failure to perform his task satisfactorily and aided by the more critical observations of the group, made renewed efforts to simulate more effectively ordinary waking behavior.
8. There arrived, unexpectedly, an out-of-town visitor whom the subject did not know, who could not be considered a legitimate extension of the office situation, and who was introduced unobtrusively into the general situation when the subject's attention was otherwise directed.
9. The subject remained consistently unaware of and unresponsive to this visitor at both auditory and visual levels despite his full contact with the situation in other regards.
10. The altered behavior of the group in relation to this visitor was readily observed by the subject but was not understood by him, and he offered various rationalizations in explanation of it. These were in accord with his previous hypnotic experiences and his apparent immediate limitations of awareness.
11. Physical manipulation of the subject by this visitor evoked general manifestations in accord with his hypnotic condition. This caused the subject to develop startle and fright reactions and led him to express guilt feelings because he found himself uncontrollably violating instructions to behave as if wide awake.
12. Further instruction to behave fully as if wide awake did not enable the subject to become aware of the visitor, although the group increasingly manifested involuntary reactions to the visitor's presence.
13. The subject finally resolved his inability to understand the situation as it had developed for him by misinterpreting it as a planned and systematic use of indirect suggestions by the entire group to elicit involuntary hypnotic responses from him.
14. Subsequent questioning of the subject in the waking state disclosed an apparent amnesia for all trance events.
15. Inquiry under hypnosis elicited a ready verbal account of everything except an awareness of the third visitor.
16. Crystal gazing by the subject resulted in a full detailed account, but without the discovery of the presence of the third visitor. No effort was made to correct the subject's understanding of the total situation.

## **CONCLUDING REMARKS**

Definitive conclusions cannot be drawn from two reports of behavior as complex as that which these subjects displayed. Nevertheless, the statement is warranted that the results obtained are not an atypical, highly individualistic phenomenon, and that similar behavior may reasonably be expected, but not necessarily be easily obtained, from other subjects under comparable conditions.

Neither can there be any extensive discussion of the possible nature and significances of these experimental results, since they constitute an initial study of a most difficult problem, an understanding of which can be reached only by repeated successful studies variously controlled and yielding informative negative or positive results. However, it is to be noted that these experimental findings, so expressive of an altered state of awareness not ordinarily conceivable, are in accord with the findings made in other experimental hypnotic studies of induced deafness, color blindness, "regression states," amnesia, aphasia, anaesthesia and, posthypnotic states (Erickson, 1938; 1939; 1941; 1943; Erickson & Brickner, 1942; Erickson & Erickson, 1938 & 1941; Erickson & Kubie, 1941). Additionally, they are comparable in some degree to those common spontaneous limited restrictions of awareness seen in states of intense concentration, abstraction, and reverie or in the failure to perceive something obvious because of a state of expectation of something quite different.

Certain general considerations, already mentioned in the introduction, may be reemphasized. The first of these, stated briefly, concerns the investigative possibilities of this type of experimental procedure for certain complex psychological phenomena, as contrasted to rigidly controlled experimental procedures which cannot provide for unexpected spontaneous developments extending beyond the devised experimental situation. Often such unanticipated behavioral developments constitute the more significant findings and are of primary importance in the experimental study of complex and involved phenomena. When such behavior has been elicited, there is then an opportunity to devise rigidly controlled experimental conditions by which to define it in terms of a known situation, instead of attempting the difficult problem of trying initially to define the precise conditions under which presumably possible behavior might appear.

The second consideration relates to the variety of spontaneous volitional activities by deeply hypnotized subjects. These two reports disclose the capacity of hypnotized subjects to respond adequately to a given situation without being restricted or limited to the passively responsive behavior so often regarded as a criterion of the trance state. In other words, there seems to be no valid reason to expect hypnotized subjects to lose their capacities for spontaneous, expressive, and capable behavior or to expect them to become simply instruments of the hypnotist. Rather, the subjects may more properly be expected to behave adequately within the situation that is established for them, and hence, even as these subjects did, to function as capably in the trance state as in the waking state.

The third consideration is the possible importance of neuro- and psychophysiological processes in eliciting extremely complex hypnotic behavior. It is hardly reasonable to expect a hypnotized subject, upon a snap of the fingers or the utterance of a simple

command, to develop at once significant, complex, and persistent changes in behavioral functioning. Rather, it is to be expected that time and effort are required to permit a development of any profound alterations in behavior. Such alteration must presumably arise from neuro- and psychophysiological changes and processes within the subject, which are basic to behavioral manifestations, and not from the simple experience of hearing a command spoken by the hypnotist. One needs only to take into consideration the marked neuro- and psychophysiological differences between the behavior of the hypnotized subject in an ordinary trance state and that of the unhypnotized subject to realize that still further developments in hypnotic behavior may be dependent upon additional and extensive changes in the neurological and the psychological functioning of the individual. In brief, these two reports indicate that complex hypnotic behavior is not a superficial phenomenon elicited readily by simple commands, but rather, that it is based upon significant processes of behavioral functioning within the subject which are fundamental to outward manifestations and that it constitutes an experiential process for the subject.

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# **The Development of an Acute Limited Obsessional Hysterical State in a Normal Hypnotic Subject**

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In any experimental hypnotic work, however well-planned, there are always the questions of what results will be secured, how they will become manifest, what will constitute adequate procedures, and what the experiment will mean in the experiential life of the subject. The following experiment is reported for the illustrations it offers of these interrelated problems.

The subject of this experiment was generally regarded as a normal, well-adjusted, highly intelligent 25-year-old woman engaged in completing her work for a doctorate in psychology. During a 15-month period she had often been used as a hypnotic subject for both experimental and demonstration purposes. Additionally, she had often critically and interestedly observed hypnotic experimentation done with other subjects, sometimes contributing both suggestions and assistance.

Among the experimental procedures she had witnessed had been the induction of hypnotic deafness, blindness, and color blindness, but these trance phenomena had never been induced in her. Nevertheless, while in deep trance and somnambulistic states she customarily manifested an apparently total unawareness of auditory, visual, and tactile stimuli that did not actually belong to the hypnotic situation itself. Thus she had demonstrated repeatedly the development of at least a marked decrease in perceptual activity at those sensory levels, a fact of which she was unaware.

In observing the hypnotic experimentation with other subjects, she had been particularly interested in the effect of hypnotic suggestion upon sensory behavior. This interest, she had explained at length, derived from her study in that field. She had frankly expressed doubts about the genuineness of such phenomena induced experimentally in the other subjects and had often asked permission to make her own tests of the results obtained. After a critical examination and testing of several subjects showing variously deafness, blindness, color blindness, and anaesthesia, she became unwillingly convinced of the validity of the phenomena. However, she reacted personally by declaring emphatically that, regardless of what could be accomplished at those sensory levels with other subjects, such altered states could not possibly be developed in her.

After some discussion of this topic she conceded that anaesthesia might be induced in her, but she rationalized this concession by explaining that it would derive only from a full direction of her attention to other things so that the perception of tactile stimuli would be precluded. Thus, she argued, a state of unawareness similar in effect to anaesthesia could be made to exist, but it would be abolished upon refocusing of attention. When she was asked to permit the induction of hypnotic anaesthesia in her hand, she consented readily. Contrary to her expectation, she found that the focusing of attention played no role in the development or the continuance of either a state of anaesthesia or of analgesia. This discovery she finally rationalized by trying to relate those conditions logically to the deliberate seeking of relief from a headache by going to the cinema and also to the difficulty ordinarily experienced in sensing the odor of one's own breath or the tactile stimuli deriving from one's own clothing.

After some further general discussion the topic was dropped. It was evident that her opinions and beliefs were unchanged, although she was puzzled. Several months later she evinced a renewal of her interest in the hypnotic modification of sensory behavior, especially hypnotic blindness. She explained that the reality of that experience for other subjects, and the outcome of her own test procedures on those subjects had continued to interest her greatly and had made her desirous of undergoing the same experience as a definite subjective experience. She explained further that she believed that hypnotic blindness must be something quite other than it appeared to be and that her purpose was to discover subjectively what that other condition might be, since objective test procedures yielded no informative results. To this end she suggested that she be hypnotized and hypnotic blindness be induced, but even as she made this request, she declared emphatically that she was confident such a condition could not be induced in her. Nevertheless, she wished the attempt to be made, since the effort itself might serve to give her a better understanding of the condition.

Her offer was immediately accepted, but the stipulation was made that the method of procedure was to be determined entirely by the hypnotist. To this she readily agreed.

As a preliminary measure she was hypnotized deeply and questioned carefully for her general beliefs, attitudes, and purposes. These were found to agree with those expressed in the waking state. Nevertheless, despite her skepticism it was felt that her offer was sincere.

Accordingly, she was told to think over the entire matter at both a conscious and an unconscious level for several days. If she found that her interest continued and that she really felt that she wished to experience hypnotic blindness, she could then return for the specific purpose of undergoing the experiment. Following this she was awakened and given essentially the same instructions.

A few days later she returned, reaffirmed her desires, and was given a definite appointment.

She appeared promptly at the set time, seemed dubious about the possibilities but definitely hopeful that an adequate technique of suggestion had been worked out in the meanwhile.

Upon being hypnotized and questioned again, she was found to persist in her waking attitudes and beliefs.

Since otherwise the general situation seemed favorable, the experiment was initiated.

Because of her firmly fixed attitude of disbelief and skepticism, a prolonged and exceedingly tedious technique of suggestion had been devised. This, for convenience, may be divided into three separate but actually overlapping steps:

1. *The development of a deep trance state.* Approximately 20 minutes were spent in giving her instructions to sleep deeply, soundly, continuously, and more and more profoundly. This was done to insure a deep trance rigidly established by long continuance so that it might not easily be disturbed or disrupted.
2. *The development of a stuporous trance state.* Approximately 20 minutes were spent in suggesting a profoundly stuporous state, of stuporous absorption in "just sleeping without interests, desires, feeling," and "thinking, sensing, feeling nothing but a stuporous, lethargic sleep in a timeless, endless way." The purpose of this was to establish firmly an extremely passive, receptive, yielding mental state and attitude.
3. *The development of a somnambulistic state.* Approximately 15 minutes more were spent suggesting that the subject, now in a profound stuporous trance, remain so but at the same time recover slowly and gradually her ability to think, to move, to feel, and to respond as if she were awake but only to that exact degree required by whatever instructions she might be given. Thus she was permitted to become passively responsive, but only within the hypnotic situation.

In such a state the subject presents very much the behavior of a person heavily drugged but not yet fully in the narcotized state and has been so described by subjects who have experienced both conditions.

With the development of this passively responsive and receptive somnambulistic state, new series of suggestions were given. These were directed toward:

- (1) The development of an increasingly intense desire and hope to experience hypnotic blindness.
- (2) The progressive growth of a full expectation of experiencing such a condition *sooner or later*.
- (3) The progressive realization of the actual and immediately impending possibility of that condition.
- (4) The development of an intention to resist for some time the self-discovery of the blindness and a concomitant ever-growing realization that such a discovery could neither be resisted nor indefinitely postponed.

- (5) The development of a full intention of concealing from the hypnotist as long as possible the condition of blindness.
- (6) The progressive development of an intense, impatient, overwhelming desire to experience all the subjective aspects of the blindness.
- (7) The sudden unexpected and growing realization that blindness had already started to develop, probably first by blurring and uncertainty of vision, then possibly by a concentric narrowing of the field of vision, then finally by a blotting out of a capacity to see outlines, and then the occurrence of blankness.
- (8) The development, as this course of events occurred, of strong but mixed emotions of satisfaction and fear, impatience and hesitation, and finally of completely helpless acceptance of the fact of blindness.
- (9) The development of a feeling of reckless determination to plunge into the subjective aspect of the existing blindness, with the understanding that all emotional reactions were to be capitalized by experiencing everything in full.

The subject's general reactions and responses to these varied, overlapping, and repetitiously given suggestions were in harmony with those elicited from other subjects who had developed hypnotic blindness successfully. As the procedure continued, every indication of her behavior suggested the effectiveness of the hypnotic instructions. However, when in accord with the instructions to plunge into the subjective aspects of the experience, she slowly, hesitantly, and somewhat fearfully opened her eyes, her immediate reaction was one of intensely bitter disappointment. She explained at once that she still could see even though she had been fully convinced of the effectiveness of the suggestions and had genuinely expected that she really would be blind.

To reassure her a long, plausible explanation was given to the effect that becoming hypnotically blind required practice and repeated effort, that it was essentially a matter of trial-and-error learning, that she had already accomplished much by fully expecting complete success at her first trial, and that she could now confidently expect blindness to develop with further effort and trials. These reassurances were readily accepted. Ordinarily such a measure of explanation and reassurance is highly effective as a suggestion technique.

Thereupon the entire procedure of suggestion was repeated again and again with variations and reemphasis directed to a blurring of vision, a concentric narrowing of the visual field, etc., until the subject seemed to have developed a satisfactory state of blindness. However, it was soon learned that in her over eagerness to experience the condition she was actually deceiving herself into thinking that she had developed hypnotic blindness.

A systematic effort was made to capitalize upon this manifestation and to transform it into an effective hypnotic blindness, but it soon became apparent that this could not be done.

Also, after still further effort and modification of technique it became equally apparent that hypnotic blindness could not be induced in the subject by any ordinarily satisfactory technique.

Thereupon a full explanation of the situation was given to the subject. Her self-deception was easily corrected, since it was decidedly superficial in character, and she expressed a feeling of inexplicable relief that it had not been accepted as valid. The subject reacted to the experimental failure with intense disappointment both in the trance and the waking state. She asked for a critical appraisal by the hypnotist of her own attitude and behavior so that she might correct anything possible. She apologized for having caused the hypnotist so many hours of futile labor, but followed this was a request that he persevere in his efforts, since it seemed to her that the experimental objectives were of sufficient value to warrant further effort. She in turn was asked for advice and suggestions in regard to technique, but she declared she was content to rely wholly upon the hypnotist.

Accordingly she was assured that the task would be continued and that the next few days would be spent working out an entirely new and adequate technique of suggestion. She was asked earnestly, as a measure of making this reassurance impressive, for full permission to use any measure of suggestion, however drastic, that gave promise of success. Not only did she give unqualified consent but she demanded that the hypnotist regard the total problem merely as an experimental project and not as a matter involving personal considerations.

This course of experimental developments suggested a need for a review of the total situation to determine the current status and the possibilities for future experimentation. Of primary interest in this review were various items of fact and the subject's inconsistencies, contradictions and unusual behavior reactions and attitudes. These may be listed briefly in the order of their manifestation:

1. Her extensive passive and active background of hypnotic experience and her unexpected manifestation of distrust of certain trance phenomena.
2. Her unwilling acceptance of her own experimental proof of the validity of certain trance developments in other subjects.
3. Her acceptance of the reality of subjective sensory trance experiences for other subjects but rejection of the possibility of a similar personal experience.
4. Her ready consent to the induction of hypnotic analgesia and anaesthesia and her apparent need for rationalizations of those experiences.
5. Her persistence in her quest after the passage of several months, despite her doubts, disbeliefs, and general ambivalences.
6. Her selection of blindness from among several hypnotically altered sensory states, even though she felt that objective test procedures for such a condition were not informative.
7. Her insistent request that she be made hypnotically blind, coupled with the immediate declaration of the futility of any such attempt.
8. Her rationalization that she was not interested in blindness but rather in the effort to induce such a state, and the coupling of this statement with the declaration that she desired the subjective experience of blindness itself.

9. Her readiness and hopefulness in submitting to hypnosis for a specific purpose, despite her skepticism and doubt about the outcome.
10. Her submissiveness and receptiveness to hypnotic suggestion, and her failure to respond to an ordinarily satisfactory technique.
11. Her reaction of intense disappointment to failure, her effort at self-deception, and her sense of relief at the detection of that self-deception.
12. Her marked aggressive insistence upon further work, coupled with her ready consent to submit to any drastic measure.
13. Her demand that the entire project be regarded as an *objective procedure not involving any personal considerations*.

Reflection on these various items in her behavior suggested that she was not primarily interested in the experience of hypnotic blindness. Rather, it seemed much more probable that she had an intense unrecognized fear of blindness and that she was really attempting, through the guise of an intellectual interest in an experiment, to serve other and unconscious goals and purposes of her own.

Hence it seemed that the experimental task more probably was not simply the induction of hypnotic blindness but rather the much more difficult and extensive task of meeting unrecognized and unconscious personality needs. Obviously the subject was seeking more than could be readily understood in terms of the actual experimental project, and yet she was apparently compelled to make that search entirely in such terms. Consideration of these possibilities suggested that the total situation presented a unique opportunity for another type of experimentation, namely, investigative research through the measure of developing in her an acute reactive mental disturbance.

Hence, under the pretense of continuing the original experiment, a new project was formulated. This was to be an attempt, within a limited controlled laboratory situation, to develop in the subject an acute hysterical obsessional compulsive mental state which would be accompanied by hypnotic blindness and which would parallel or resemble the obsessive compulsive hysterical mental disturbances encountered in psychiatric practice.

To accomplish this it was reasoned that, against the background of her tremendous interest in the experience and the sense of failure and disappointment arising from the original experiment, a deliberate, systematic suggestion of obsessive compulsive ideation, affects, and behavior would lead to the development of an acute laboratory neurosis which would resemble an actual neurotic disturbance. In brief, the project was to determine experimentally whether or not a carefully chosen set of circumstances, ideas, emotional reactions, and psychological stimuli could be employed directly, intentionally, and in accord with a predetermined plan to cause a psychoneurotic state of a recognizable psychiatric type, and which could be understandable in terms of the actual stimulation given to the patient. Thus an experimental procedure, parallel in kind to that employed in laboratory medicine, was planned in relation to a psychiatric problem.

In accord with this new project another technique of procedure was devised. This was based upon the following three considerations:

- (1) A crude, inaccurate statement of the James-Lange theory of emotions, i.e., "first you run away from the bear and then you become afraid."
- (2) The commonly experienced tendency to meet with the mishap one strives too hard to avoid, i.e. the bicyclist, overly intent on avoiding a stone, actually strikes it.
- (3) The implying and giving of absolute reality to something by the measure of developing an intense resistance to that something, the principle being that one cannot resist that which is nonexistent.

The first step in the development of adequate hypnotic suggestions for the proposed new experimental project was the determination of the actual form, pattern, or structure of the suggestions to be used. To this end the hospital wards were visited by the writer and extensive verbatim records were made of the compulsive utterances, obsessive ideation, and repetitious pleadings and self reassurances of a number of mental patients. These records were then systematically paraphrased so that, while the general structure and succession of utterances remained unchanged, their content had been transformed by the paraphrasing into that of the hypnotic suggestions taken from the original technique. Thus a definite form or pattern was developed into which the hypnotic suggestions were fitted, so that they could all be given to the subject in the form of compulsive obsessive repetitious ideas.

Interspersed with the actual suggestions were paraphrases of the pleading utterances and self-reassurances of agitated obsessional patients. These were so worded as to be applicable to the subject in her immediate situation.

Additionally, accounts of various incidents relating to blindness—most of them fabrications, two actually taken from her own past experiences—were woven into the series of suggestions to give further weight of ideational content.

These two instances had been related to the hypnotist by the subject's roommate, and both were highly traumatic. The first centered around the development of blindness in a pet kitten of her childhood, its subsequent sickness, and an accident that had crushed and mangled it. The result had been a persistent phobia for cats unless fully grown and black in color.

The second traumatic instance was the relatively recent actual blindness in a close friend as a result of an automobile accident. The subject had been tremendously distressed by this occurrence.

Although she knew that the hypnotist had some general awareness of these two unhappy events, and she had been urged by her roommate to discuss them with the hypnotist, she had not done so.

In this way there was prepared a long, repetitious, discursive, interwoven monologue of morbid ideas, hypnotic suggestions, pleading utterances, reference to trauma, and self-reassurances, all in the form of compulsive obsessive ideation and utterances. This was

directed to the intentional development of an acute obsessional state in the subject which could culminate in hypnotic blindness.

In presenting this material to the subject every effort was to be made to secure, in any form and order, the following types of response and behavior:

1. A compulsive need, while her eyes were closed in the trance state, to make groping, uncertain, uneasy movements, and now and then to walk gropingly and unwillingly, experiencing all the while intense emotional distress as she tried blindly to find her way and to identify by tactile sensations the objects with which she came in contact.
2. A constantly increasing need to depend upon and to secure from the hypnotist reassurances in addition to those she found compelled to utter to herself.
3. An obsessive, constantly recurring fear that she would timidly and fearfully grope her way about and collide blindly and painfully with various objects and be helplessly unable to avoid doing so over and over as she continued to be unable to see.
4. An obsessive compulsive need to assure and reassure herself that she would not and could not become hypnotically blind, that the concept of hypnotic blindness was in itself absurd, unreasonable, and could not possibly hold any meaning for her.
5. An intense desire to prove over and over that she really could see if only she could open her eyes, and an intense resolve that she would resist strenuously, frantically, the slightest diminution of her vision.
6. And finally, an intense fear of and a morbid fascination with the thought that she was really hypnotically blind. This fact she would resist discovering as long as possible, and she would find herself compelled to grope blindly about, pretending to see and trying to believe that she could see.

Upon the subject's return for further work she was hypnotized deeply, and the original technique of suggestions was emphatically disparaged and discredited by the hypnotist while the subject was asked repeatedly to agree with all the various condemnatory remarks. This she readily did. Additionally, and always out of context, apparently irrelevant statements were made repeatedly to the effect that *if ever she did develop hypnotic blindness, it would happen quickly and unexpectedly*. Each of these statements was always coupled with an easily accepted disparaging remark about the original technique to which she was asked to agree, but without opportunity to make reply in relation to the idea of the development of sudden blindness.

Next she was told that hypnotic blindness would actually hold for her many unpleasant and even fearful emotional significances, and as she continued to think on the topic, she would find those unpleasant emotions increasing in number even though she would not be able to identify them. These, it was explained, would be simply troublesome but unformed and unidentified affects of a distressing character. Yet, if she really had something to gain from the experience, her intellectual curiosity would continue to grow despite, and probably because of, these unpleasant emotional reactions until she found herself "practically obsessed and morbidly fascinated by the whole idea."

After these various suggestions had been repeated sufficiently to insure her adequate understanding of them, she was awakened from the trance and the procedure repeated, this time in the guise of a conversational explanation of what she could reasonably expect to happen in relation to the proposed experimentation. She was then dismissed with instructions to return in a few days and to report upon the course of development within herself.

Instead of letting her return voluntarily, she was deliberately sought out several days later in another connection. Advantage of this was taken to rehypnotize her and question her. She related that the suggestions given her had been unpleasantly effective. This had distressed her but at the same time it had amused her, and this feeling of amusement had augmented her curiosity greatly and had made her all the more intent upon continuing with the experiment.

Immediately the suggestion was offered that she continue to sleep more and more deeply until she was as deeply asleep as she had been in the first experimental situation. While she was thus going into a deep trance, she was told to think about the proposed experiment continuously. Approximately 15 minutes were spent in giving reiterative suggestions to secure a trance state similar to that originally employed.

When a suitable trance state seemed to be sufficiently established, and since her behavior disclosed no unfavorable reaction, the planned series of suggestions was begun. At first this was done slowly, gently, persuasively, and then with progressively greater urgency and insistence. As this course of action continued, some of the planned suggestions had to be modified slightly or temporarily postponed, while others had to be given new emphasis in accord with the subject's immediate reaction to them, but these changes were all essentially minor and did not alter the original plan.

As this procedure continued, the subject became increasingly restless. Repeatedly she would start to rise and then slump back into her chair as if trying to retreat or withdraw from the situation only to become again more and more responsive to the various suggestions and to act upon them. Also, as the suggestions continued, the subject was variously induced to:

- (1) Perform unwillingly but compulsively various groping movements, including walking, to experience a conviction that she was going to make a certain movement and then to find that she was unwillingly, confirming the truth of that conviction.
- (2) Reassure herself over and over that nothing was going to happen, that she was really not afraid, that she was confident that she could resist all suggestions, that if she could not, at least she could resist discovering that she was hypnotically blind.
- (3) And to cast futilely about in her mind for any possible means by which to resist and to postpone the discovery of the blindness, and also to try helplessly to think exclusively about other things.

As the subject became more and more seriously distressed, agitated, compulsive and obsessional in her behavior, a new measure was employed. This consisted of suggesting in an almost triumphant manner that she could defeat and actually overthrow the whole project of compelling her to experience hypnotic blindness by deliberately and defensively resorting to her old familiar childhood trick of rolling back her eyeballs so that only the whites of her eyes would be visible. Thus she could honestly believe and demonstrate that she could not see for only physical reasons.

The subject seized upon this suggestion at once, rolled back her eyeballs, raised her lids, and began groping her way about. Immediately the suggestion was offered that she would now lose control of her ocular muscles, that they would become cataleptic, and she would not be able to roll her eyes down again nor would she ever be able to do so until she was ready and willing to face the fact of her blindness. Thus a dilemma was created, either alternative of which signified an inability to see, hence blindness.

The ocular catalepsy developed at once. She was encouraged to try to overcome it, to rub her eyes, and to strain to regain muscular control. Along with these suggestions she was reminded of her interests in the subjective aspects of her hypnotic blindness, and she was urged to try to discount, disparage, and deny that interest, to insist that she was more interested in moving her eyes, *that it was not a question any longer of seeing*, but simply a question of moving her eyeballs.

As the subject became increasingly distressed by this new problem, she was told that no matter how distressed she now felt, everything would eventually turn out satisfactorily and that soon, very soon, she would discover suddenly and unexpectedly, without any warning at all, that she was blind. This discovery, it was explained, would be made at a moment in which she would have no opportunity to resist, to reassure herself, even to think, that within a moment's time she would be plunged directly and deliberately into the middle of the subjective experience of hypnotic blindness. Until that moment, however, she was to rest quietly, to sleep deeply. As she obeyed, and before she had time to puzzle out the meaning of these remarks, she was told abruptly, emphatically, to awaken.

She reacted with a start and a frightened cry, tried to plead that she be allowed to sleep longer, but rapid, insistent commands to awaken compelled her to obey. In this way a waking state with altered visual behavior as a post-trance phenomenon could be secured.

As she began awakening, she cried, protested that she did not want to open her eyes, that she was afraid she was going to open her eyes. She gave evidence of intense conflict and of deep emotional panic, with much compulsive activity centering about her eyes. She held them shut very tightly, yet seemed to be straining to open them, and her eyeballs could be seen rolling rapidly back and forth and up and down underneath her lids. Frequently she would press her hands to her eyes and then tremblingly withdraw them. Finally she stiffened in her chair, thrust her arms stiffly outward, and a rigid, strained, fearful expression appeared on her face. Her eyes slowly opened, but with a blank, unseeing expression. There followed a rapid succession of closing and opening them, of

rubbing them, of strained, peering behavior, of crying, and of inarticulate vocalizations of intense fear and panic, with incoherent denials and self-reassurances.

At first it was not possible to attract her attention. She seemed to be entirely absorbed in distressing emotional reactions. After trying vainly, because of her frantic disorganized behavior, for about 20 minutes to get into contact with her, it was noted that she was becoming greatly exhausted. Accordingly, as a measure of keeping control over the situation, a posthypnotic cue which had often been used in the past to induce a hypnotic trance was given. She responded by falling immediately into a deep trance with her eyes shut. She was promptly told to rest quietly for some time, and then, when she felt herself ready and willing to do so, she was again to awaken and to re-experience the same subjective state.

After some minutes she was again awakened in an urgent, commanding fashion. There occurred a repetition of the previous disturbed emotional behavior, similar to that of an acute hysterical panic state. Again it was not possible to establish conversational contact with her, but after some 15 minutes the severity of her panic lessened somewhat and she began to make piteous, repetitious appeals for restoration of vision and for reassurances. At first she seemed unable to grasp the meaning of replies given her. Slowly, however, she came to be able to listen attentively to what was said and to seem to understand fully. With considerable difficulty the explanation was given her that her blindness was under control, that it would be continued only so long as it served a legitimate purpose. With even more difficulty her own experimental objective was explained to her. She seemed to have forgotten entirely her personal interests and to be unable to understand what was being said. As progress was finally made in this direction, her general fright and distress decreased and her original interest in the subjective aspects of hypnotic blindness revived slowly. However, there would recur from time to time sudden outbursts of panic and intense fright with excited, disorganized activity that would slowly yield to careful reassurance.

Approximately half an hour was spent in letting her investigate her state of blindness, which she did in a rather futile, spasmodic fashion by groping and peering behavior. She finally declared, when the suggestion was offered that she test her vision, that the making of visual tests was absurd since, "blind people don't test themselves to see if they are blind. You just know you are blind, and that is all the farther you can go on that proposition." As she uttered this declaration, she developed another severe panic and required extensive reassurance.

When it was proposed that the hypnotist test her vision, she declared such a measure to be as absurd as her own efforts but expressed entire willingness. Accordingly she was asked to face the hypnotist, and a rapid conversation on topics of interest to her was begun. She made no motor response to a sudden interruption of the conversation by the hypnotist's sudden turning to stare in an intent, puzzled fashion across the room. Nor did she make any of the involuntary reflex movements so natural as, for example, when an object within the visual range is accidentally knocked over, and a variety of other indirect

test procedures which would result in involuntary reflex motor response. However, she did show violent startle reactions and fright to any noise occasioned.

When it was proposed to test her eyes with a flashlight, she was much interested in her normal pupillary response, and she experienced the flash of light as a "hardening sensation" of her eyeballs. When subjects deceive themselves about visual alteration, the response is one of ignoring the situation completely. No satisfactorily explanation of this "hardening" could be secured. Later she was engaged in conversation from across the room and a pocket minor was used surreptitiously to flash a beam of sunlight in her eyes. There was no withdrawal reaction, but she immediately announced that she felt the "hardening sensation" in her eyes and was much distressed, since she knew that the flashlight could not have been used from where the hypnotist was speaking. There followed then a severe hysterical panic, since she felt certain that something must be happening to her eyes.

A chance incident of note occurred while she was speaking when the hypnotist unthinkingly crossed quietly the room to a position behind her, and in picking up an object made an audible noise. To this she reacted with a violent startle reaction, demanded of the hypnotist, as if he had not moved, to tell what had happened, who had entered the room, and she began to cry. When a full explanation was given her, she demanded that the hypnotist be more careful, that her nerves were all on edge, that she could scarcely maintain her composure, and that, while she was willing to continue in the present state as long as was necessary, she was becoming increasingly frightened and worried. She begged that things be done speedily, and then broke down into piteous sobbing.

When finally she was quieted, the question was raised that she might be interested in recalling how she had reacted to the suggestions given to her in the trance state, and it was suggested that she recollect her trance experience and give an account of it. To this she agreed with some enthusiasm, but immediately as she made the effort, she became extremely distressed emotionally. It soon became apparent that she could not perform this task. She did, however, succeed in explaining that, as the series of suggestions had been given her, she had felt herself caught up in a welter of confusing and incomplete ideas and emotions that had swept her helplessly along.

Finally the question of restoring her vision was raised. She was asked for her opinions and wishes in this matter. After some thinking she replied that the suddenness and unexpectedness of the blindness had been so unpleasant that she felt that it would probably be better to restore her vision by slow degrees. This could be done, she thought, by letting her become aware visually of the first one object and then another. After thinking this matter over, her permission was asked to proceed with the task in a manner that might be interesting. To this the subject agreed readily.

Professing a need to think matters over, the hypnotist stepped out of the range of her vision, merely as a precaution, and secretly removed his black right shoe, replacing it with a brown left one. He then returned to a position about six feet in front of her and had

her lean forward and direct her eyes, as closely as possible, to a certain spot on the floor. At this point he placed his left foot on which he was wearing the black shoe, while the other foot remained concealed behind a piece of furniture. Slowly and systematically suggestions were given her to the effect that sooner or later she would begin to see a blurred object that would become progressively clearer in outline until she would finally begin to see his shoe. This she was to identify and describe. After much suggestion she began to see a shoe, at first very dimly and then increasingly plainly, until she was able to identify it as a black left shoe. When this much had been achieved, the right foot was placed alongside of the left, and she was instructed to see the *other* shoe. Similar suggestions were given, but without effect. After extensive suggestion far beyond the degree that had been necessary to induce a seeing of the left foot, the subject became greatly alarmed and expressed fears that the hypnotist was failing in his efforts to restore her vision completely, and another violent panic reaction ensued. Much reassurance had to be given her before it subsided. After continued emphatic and urgent instruction to see *another shoe* alongside the first, she finally began to respond to this suggestion. However, when that shoe began to be sufficiently clear in outline for her to recognize it as a second left shoe and of a brown color, she became much alarmed and distressed. She was convinced that she was not really seeing either of those shoes, that she was merely hallucinating them, and there was no realization that she might be undergoing an unexpected test. Instead, another serious hysterical state developed.

Much effort was required to regain contact with her and to reassure her emotionally without betraying the actual test situation. This was finally achieved by impressing upon her the desirability of determining, purely as an intellectual task, whether or not the shoes as seen were both hallucinatory or if only one were hallucinatory, and which one that might be. When she became engaged in this task, the subject found herself unable to make any differentiation in the reality values of the two shoes and finally requested the hypnotist to walk about if he were wearing the shoes or to move them, explaining that the movement of the shoes, if the hypnotist were really wearing them, might be of value. Before the room had been crossed in response to her request, the subject broke into a relieved smile and grasped the circumstances fully, since the hypnotist's familiar right-sided limp betrayed the situation to her. With this discovery, her feeling of terror about the mismatched shoes disappeared, and she dismissed the possibility of hallucinations. Much relieved and more confident, the subject continued with the task of recovering her vision, asking that she be permitted to pursue that task without any further aid by suggestion or frightening manipulations on the part of the hypnotist. Approximately 15 minutes were spent by her in enlarging her visual field to include socks, trousers, chair, and finally everything within her normal visual range.

Upon restoration of her vision she demonstrated a tremendous visual hunger, eyeing intently first one object and then another as she verbalized a feeling of immense relief. Finally she was rehypnotized, told to review the entire experience from beginning to end, and to remember fully all the details of the entire experience, subjective and objective, especially the emotional components. Following this review she was to prepare herself to discuss freely any of the items that might be of a troublesome or distressing character. After she had been allowed to remain in the trance state for what seemed to be a

sufficient period of time to permit an adequate mental review of the experience, she was awakened with instructions to talk freely and readily with the hypnotist about the entire procedure.

Upon awakening, the subject sat quietly and thoughtfully for some time and then remarked that the entire experience had been decidedly painful, frightening, and remarkably fatiguing, but that her general reaction was one of satisfaction such as is experienced after successfully completing a hard, difficult task. However, details of the experience, she declared, were vague and unclear. As for the validity of hypnotic blindness, she had no doubts, and she expressed amazement that other subjects had been able to accept it with so little distress as they had shown.

When she was questioned about the possibility of relating or writing out in detail a full recollection of the entire thing, she expressed doubts, explaining that she was very much of the opinion that any such effort on her part would lead to a revivification of the intense emotional reactions she had experienced. This, she declared, would preclude her from giving a description in adequate detail. Furthermore, most of the experience had been largely a matter of emotions, distressing fears, and a feeling of utter helplessness. An effort to persuade her to make the attempt caused immediate emotional distress that threatened to become a panic state even in her present waking state.

However, she did declare again that she now had no doubt about the reality of hypnotic blindness, that the only problem confronting her in that regard was how such a phenomenon could occur. Additionally, she declared that she felt herself to be in a position to understand better the intensity of the reactions of psychotic patients to hallucinations. Her uncertainty about the reality of the mismatched shoes had been most terrifying to her, and even more so had been the sight of those two shoes walking by themselves until she had grasped the situation.

Some weeks later this subject requested a repetition of the experiment, declaring that she wished to learn if she "could take it comfortably." Immediately upon going into a deep trance, she readily and easily developed hypnotic blindness without any more emotional distress than that signified by her prompt and spontaneous declaration of confidence that the hypnotist could control it thoroughly. Nor was any elaborate technique of suggestion necessary.

Subsequently, both upon her spontaneous offer and the hypnotist's request, she volunteered for experimental and demonstration hypnotic work, including hypnotic blindness.

Several years later she was met by chance and, after some reminiscing, inquiry was made about her recollections of the experiment. She recalled the experimental aspects vividly and without distress. She stated that to date she had no understanding of how there could be hypnotic blindness, but that there was no doubt in her mind of its validity.

After further desultory conversation she was asked about her cat phobia. Somewhat amazed by the inquiry, she recalled it and described it as belonging only to her childhood, something she had forgotten about "long ago."

Inquiry about her blinded friend puzzled her also, but she related the story in a matter-of-fact manner and added that she had once thought of discussing it with the hypnotist but that for some unknown reason it had lost the distressing emotional significance it once held for her.

### **GENERAL COMMENT**

It seems obvious that the experimental subject had two objectives in mind. One was the experiential satisfaction of definitely intellectual desires related to her educational background. The other, unrecognized and unconscious, concerned the seeking of a subjective understanding of at least two traumatic experiences which had made a deep impression upon her.

Her willingness to submit to "drastic" measures and to endure the painful developments of the experimental procedure signified the intensity of her unconscious needs.

The description of the experimental results as the induction of an experimental neurosis in a normal person is both right and wrong. It is right because an acute neurotic disturbance of a definite pattern was secured in accord with a preestablished plan of procedure.

It is wrong only in that underlying circumscribed neurotic affects became a part of and were added to the experimental results. However, these neurotic components in no way vitiated the experiment as such. Rather they were dispersed as a result of the experimental neurosis. This is a finding previously reported (Erickson, 1935, 1943, 1944).

Finally, this experiment has been reported in detail to present an account of hypnotic experimental technique and to portray the meaningfulness of language in eliciting hypnotic phenomena and the possibility of consequently satisfying personality needs of the hypnotized subject.

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# **Observations Concerning Alterations in Hypnosis of Visual Perceptions**

Elizabeth M Erickson

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A study was published in the *Journal of Abnormal and Social Psychology*, 1939, Vol. 34, pp. 114-117, by Loyd W. Rowland, Ph.D., then of the University of Tulsa, Oklahoma, entitled "Will Hypnotized Persons Try to Harm Themselves or Others?" In this study Rowland recounted his experiments into what he considered the possibility of a hypnotized subject being induced to perform harmful or objectionable acts through deception and persuasion.

These two experiments were devised as follows: The one consisted of asking deeply hypnotized subjects to pick up a rattlesnake, variously described to them as a rubber hose and as a snake, lying in a box the front of which was made of "invisible glass," presenting the impression of being open; the second consisted of asking the subject to throw a fluid, which had been demonstrated to him as being a strong acid, at the experimenter's face, which was protected by a pane of "invisible glass." Four hypnotized subjects were used in the first experiment, and three complied with the request. Two subjects were used in the second, and both did as instructed.

Controls were 42 subjects in a waking state. None of them could be induced to perform the acts.

Dr. Rowland concludes that the subjects acted against their better judgment because of their trust and confidence in the hypnotist: He calls for a reexamination of the question of the possible misuse of hypnosis. The experiment has become well known and is frequently alluded to in the literature, often being cited as proof that subjects will perform harmful and dangerous acts.

This is a question that arises repeatedly in the study of hypnosis, and many experimenters have presented results of experiments of great ingenuity in which both falsified and genuine situations are presented to subjects to see if acts against themselves or others can be induced, with results which have been variously interpreted. In no case has a completely acceptable procedure been devised to which critics have not been able to point out flaws in technique or alternative interpretations of the results.

It has been shown repeatedly, and should be obvious from ordinary everyday experience, that one person can influence another, without resort to hypnosis, to commit antisocial acts, both directly and through deception. Whether hypnosis may be an element of accentuation or may ever be an element essential to such deception or persuasion is

something else again. This is actually the central question raised in Paul Reiter's book, *Antisocial or Criminal Acts and Hypnosis* (1958), and the role played by hypnosis as such in this case is indeed most debatable.

A person can also deceive or trick another into performing a dangerous act which the subject does not realize is harmful, and the fact that the subjects are in a hypnotic trance may make them more accepting of the trickery, or it may, on the contrary, cause them to increase their defenses and become more dubious and cautious. This is the essential question frequently raised by Dr. George Estabrooks' speculations in various publications, e.g., *Death in the Mind* (with Richard Lockridge, 1947), and *Hypnotism* (1943), and it is a question that he actually answers with speculations only.

One person may also deceive or trick another into attempting an act which is actually perfectly safe and harmless but which the subject cannot possibly regard as being in a protected situation without danger to anyone. This, in essence, is what Rowland purported to have done, and this is the point which is frequently cited as having been proved by his study; or at least, of having been strongly indicated by the evidence of the results. In point of actual fact the situation was a protected and safe one. If the subjects were aware of this in any way, the study proves only that subjects will carry out seemingly adverse acts in a known protected situation, which is a well-known fact in itself. If they were actually completely and definitely unaware of the protection, as Dr. Rowland believed, then indeed the study may be regarded as evidence that they can be induced to perform unsafe acts.

It may be argued that because the experiments were performed in a laboratory setting and because the experimenters were respected as responsible citizens, the subjects therefore would inevitably infer the presence of protection. This possibility was meant to be eliminated by the use of the waking controls. Whether this was an adequate control is debatable, since one might argue that the subjects might also infer that the experimenter expected waking subjects to accept more responsibility for their actions and might hence provide protection only under hypnotic conditions.

But even if one accepts the validity of the performance in a laboratory setting, the possibility arises of the actual detection of the protection afforded to the subjects in a hypnotic trance, although they were unaware of it in a waking state. The investigation of this possibility and the control of it were lacking in Rowland's work, and if there is evidence that the detection of the protection is definitely more likely in a hypnotic state, then the experiments proved nothing one way or the other concerning a subject's willingness to perform an act harmful in reality.

The following account is presented as an indication of evidence of the definite possibility of a hypnotic subject's ability to be aware of a visual perception in the trance state which was not appreciated as such in the waking state. It is presented as a first-person account, as written out by her shortly after the experience. The subject has had a great deal of experience in developing hypnotic slates, both autohypnosis and heterohypnosis.

## SUBJECT'S ACCOUNT

I walked by the show window—a window at viewing height (about four feet above the ground level) of the New York store which sells the product of an outstanding manufacturer of fine glass. The window is made of curved “invisible glass.” In the show case of the window are several beautiful glass objects, and the interior of the store is also visible. The window is about four feet long and two feet high. From the sidewalk there is a perfect illusion of no glass barrier at all. Standing very close and giving attention, one can see a few flecks of dust on the glass, and realizes that if they had been floating in midair, they would not, of course, be stationary, as they are. Also, where the end of the glass fits into the wall, one can see the joining place. But the glass as such is not visible.

I began thinking of Rowland's well-known experiments, in which he found that hypnotized subjects were willing to throw acid on the experimenter, and to attempt to pick up a live rattlesnake through an “invisible glass” barrier. The control was that of using the same experimental subjects and setups for both the trance and waking states, as well as using additional nonhypnotized subjects. Universal refusal and the development of emotional agitation resulted. I realized that the joint where the glass joined the frame would undoubtedly be concealed, but I wondered about dust control in Rowland's experiment. Perhaps the subjects, in a state of hypnotic concentration and emotional calm, might be more likely to see a few specks of dust, and this alone might be enough to muse them to infer the presence of a barrier and to have confidence in that inference.

Two days later I decided to look at the window again. I walked over to the store and looked at it closely, again becoming immediately aware of motionless dust specks. On impulse I decided to develop an autohypnotic state. I did not expect to observe any difference whatsoever. I do not believe my visual acuity is increased in any way by hypnosis. I took my time and developed a good deep trance state. To my utter amazement the “invisible glass” became as visible as an ordinary window pane. I could not believe it. I thought I had made some kind of mistake. So I stood there for 15 to 20 minutes, experimenting in every way I could think of. I went in and out of a hypnotic state, focusing my eyes successively on the glass itself, the objects in the window, and the interior of the store. In every case, when I was in a hypnotic trance the glass became immediately visible. When I was awake, it was not. I tried to analyze what this visibility consisted of, and could not decide. It did not seem to me to be reflections. All I can say is that there was simply an alteration of appearance. Objects near the glass seemed to be equally clear in both states, but in a hypnotic state there was a very slight blurring of the objects at the back of the store. This was the only specific change I could detect, but this does not describe the difference adequately. Essentially the difference was simply that of the general experience of looking through a closed window having a clean pane of good-quality glass, and the experience of looking through a wide-open window.

On a third occasion, some months later, I repeated my observations in the company of a companion who had had much experience in the study of hypnotic perception. His own findings were that in his waking state changes in visual focusing to include the area of the window itself, the area immediately behind the window, the interior of the store, and the back of the store did not affect for him the invisibility of the glass nor the illusion that the area was empty of any barrier. His waking experience was entirely similar to mine.

## **DISCUSSION**

This experiment is by no means a controlled one. But neither should Rowland's and similar experiments be considered "controlled," unless the subjects are first tested with several containers in random arrangements, some with "invisible glass" panels and some without. The subjects should be observed without their knowledge; or the arrangement of the boxes should not be known to the observer, this to prevent unconscious cues which are now being increasingly recognized as important experimental variables. Perhaps both precautions could be taken. The subjects should be tested in both waking and trance states, to see whether or not they could pick out the glass-in boxes on a better-than-chance average.

If the experience of this specific subject proves to be a valid one, and her interpretation correct, a possible explanation might lie in spontaneous vascular and other changes in the eye during the trance state, such as those observed by Strosberg and Vics, described in "Physiologic changes in the eye during hypnosis" (*American Journal of Clinical Hypnosis*, 1962, 4, 264-267).

It is hoped that well-controlled experimentation in the field of sensory discrimination and of perception in hypnotized subjects will clarify this and other problems as yet unsolved. In the meantime the conclusion that Rowland's experimentation demonstrated the willingness of hypnotized subjects to expose themselves or others to hams, even in a laboratory setting and with the responsibility shifted to the experimenter, should be reevaluated. If the subjects were aware of the presence of the glass in the hypnotized state, whether or not that awareness was consciously known to them, then the experiments demonstrated only that awareness and nothing more. It is unfortunate that Rowland did not control a most important possible variable in his experiment. Instead, he merely assumed that there would be no alteration of visual experience from the waking to the trance state such as occurred in the above report.

## **SPECIAL COMMENT**

The absence of the waking-state phobic response to rattlesnakes by the hypnotized subjects is a striking phenomenon which, being merely described but not being specifically mentioned or investigated as a significant observation meriting investigation, has been obscured and overlooked in the discussions of Rowland's experimentation and the conclusions that have been drawn from it. In a personal communication Dr. Rowland described as "a horrible sight-the subject reaching for that mighty diamondback

rattlesnake right up to and touching the invisible glass a few short inches from the head of the snake with the lashing tongue, inflated head pouches, rattles vibrating until they were blurted." This marked personal reaction was shared by many of his waking subjects, and the reaction of others was even more intense. A graphic description is given of the shuddering near-hysteria evoked by the mere sight of the snakes, and of the calm detachment of the hypnotized subject. Yet this striking and interesting difference of behavior on the part of the hypnotized subject, with the many experimental and therapeutic possibilities that are implied by it, was overlooked at the time and has not been investigated.

# **Further Observations on Hypnotic Alteration of Visual Perception**

Elizabeth M. Erickson

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Since having the experience given in detail in *Observations Concerning Alterations in Hypnosis of Visual Perception* (The American Journal of Clinical Hypnosis, October 1962, 5, 131-134), I have wondered from time to time what was the nature of the actual difference between the visual perceptions of "invisible glass" in the waking state and in the trance state.

"Invisible glass" is a term for panes of a high-quality glass, very clear and almost flawless, which are curved at an arc that is calculated mathematically so that reflections are eliminated. The appearance to the observer is that of an open space rather than a window.

Nearly five years after the original experience, while walking down Michigan Avenue in Chicago, I happened to pass a jewelry store that had two display windows with this type of glass. The windows were somewhat smaller than the window of the previous experience, but the illusion of open spaces was equally striking aided by the absence of window frames with the glass set directly in the building wall, thus intensifying the illusion of an open place in the wall.

I decided to see if again I could perceive the glass in the trance state with the same lack of conscious intention or effort and with the same immediate facility. I stood there and developed a trance state, and the glass at once became visible. I awakened and the glass vanished.

I decided to attempt to analyze these experiences further. Again I had neither expectations of nor belief in any improvement in visual acuity.

I noted again that minute specks of dust, stationary of course, were clearly visible on the glass when one focused on them. There were also what appeared to be very slight reflections at the extreme edges of the glass where it joined the wall, and also a very small streak that was probably cleaning compound incompletely wiped off. These items of experience were equally visible in the trance state and in the waking state when one looked for them, but the perception of them differed. In the trance state they were separate items of experience; in the waking state they were very unimportant details in the entire overall experience.

This comprehension started me on a train of reasoning which, I believe, explains how the glass becomes “visible” in the hypnotic state.

Everyone who has assisted with editorial work becomes familiar with what is called “proofreader’s error.” This is the type of perception which leads one to read and reread manuscript, galley and page proof, and finally to approve the material as absolutely error free, only to note, when the material is in print, that there are conspicuous, possibly even ludicrous crones, omissions, or transpositions of letters. The error-free portions previous and following, plus the expectation of what should reasonably be between them, lead one to “see” the material in a comet but nonexistent state.

Similarly, the lack of ordinary reflections, scratches, and distortions in the invisible glass leads one in the waking state to be unaware of the visibility of the minute dust panicles and of the logical consequences of their presence. But the hypnotized subject perceives these same panicles as a separate visual experience and does not make the overall percept of the entire visual field. Thus the area in which these minute but perceivable visual stimuli are located, regarded as a separate unit, becomes “visible.”

Related to this is the well-known literalness of the hypnotic subject’s responses in performing other tasks. In the trance state the subject looks *in* the window as one experience and *looks through* it as a second experience. In looking *in* the window the dust specks and my streakings lead to the perception of the glass as a visual experience. In the waking state long experience in looking *through* a window with a disregard of dust specks, streakings, and the actual flaws of ordinary glass, conditions the waking person not to see the glass. Hence this conditioning, enhanced by the flawlessness and almost perfect lack of reflections, leads to the illusion of the “invisibility” of the glass.

In this connection one can bring to mind the housewife’s technique of washing one side of a window pane with vertical strokes and the other side with horizontal strokes to enable her to “see if the glass is clean.” A chance interrogation of professional window cleaners in the Empire State Building made years ago and repeated more recently at the O’Hare Airport in Chicago yielded identical results. The inquiry of “How do you really know if the window is clean?” elicited from both sets of window washers the reply, “You have to look at the window in a special way. If you don’t, you will look right through it and you won’t see the dirt you missed.”

The comparison with “proofreader’s error” leads to the logical corollary as to whether or not proofreading might not be much more efficient in the trance state. Regrettably, so far as I myself am concerned, I conclude that this would not be feasible. The slowing down which seems to be an inevitable accompaniment of the trance for me would lead to such an increase in the time required for the task that any increased accuracy would not be worthwhile.

# An Investigation of Optokinetic Nystagmus

Milton H. Erickson

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Optokinetic nystagmus was discussed at a diagnostic conference as a possible aid in differentiating between "hysterical" blindness, "malingered" blindness, and the deliberate deceit sometimes practiced by patients commonly designated as psychopathic personalities.

All discussants agreed that the normal person could not inhibit optokinetic nystagmus even when apprised of its nature and coached on how to suppress it. This conclusion was confirmed later by systematic testing by various investigators, all of whom rigorously excluded hypnosis as a variable in the test procedures. A revolving screen designed to induce optokinetic nystagmus was employed as the test apparatus.

Normal hypnotic subjects were then tested under controlled conditions in both waking and trance states. Optokinetic nystagmus readily developed in both states of awareness. When the subjects were instructed in the trance state to develop hypnotic blindness, a slow diminution and a total disappearance of the nystagmus occurred, usually within five minutes. Given the same instructions in the waking state, the subjects slowly developed a spontaneous trance and then manifested blindness and a loss of nystagmus.

When they were asked in the trance state to develop negative visual hallucinations—that is, to see only empty space instead of the reality objects present or to develop positive visual hallucinations, that is, to see objects other than those actually present—optokinetic nystagmus consistently disappeared. Regression, which would imply a different environmental surrounding, invariably abolished the nystagmus which would return immediately upon the reorientation of the subject to the current situation.

Two of the normal subjects available were medical students who commuted daily by train to attend classes. In the somnambulistic state they were asked to hallucinate themselves on the morning train in the company of the author and his colleague and to carry on a casual group conversation. As they responded to these instructions, the author directed attention to the fence posts, trees, bushes, etc., along the immediate right-of-way. Both students showed an optokinetic nystagmus as they looked out upon the hallucinated scene. Shortly one of them showed a diminution and then a cessation of the nystagmus. Upon the author's puzzled inquiry concerning what had happened, that student succinctly named the first scheduled stop of the train. Immediately, the other student, still showing nystagmus, looked around, remarked, "I hadn't noticed," and immediately lost his nystagmus. Shortly each student slowed a return of the nystagmus and a diminution and cessation of it when the author casually commented upon the immediately impending

arrival at the next station. Throughout the rest of the hallucinated train ride, without further intervention by the author, the students continued to show optokinetic nystagmus and its diminution, cessation, and renewal in accord with the actual train schedule. There was no unison in their performance in that subjectively they "traveled" at different rates of speed so that one could be experiencing a station stop while the other was still traveling between stations. (This same experiment was subsequently repeated with similar results before a medical school class without any preorientation as a measure of instructing the students in the validity of subjective experience.)

Four patients, not all at the same time since they were not simultaneously available, manifesting hysterical blindness were tested for optokinetic nystagmus. Two showed none, but it was noted that they both showed marked muscular tension and rigidity both in the test situation and all examination situations. One of the remaining two patients showed a beginning nystagmus, complained at once of a sudden severe headache, and slowed no more nystagmus. The fourth patient was uncooperative and resistive, but the general impression was formed that had she been willing to look in the direction of the revolving screen, nystagmus would probably have developed.

Later the first two patients were tested after successful psychotherapy. Both slowed normal optokinetic nystagmus in a test situation and the disappearance of it when hypnotically regressed to the period of their hysterical blindness, but prompt recurrence of it when reoriented to the current situation.

Two patients classified as psychopathic personalities, one a man, the other an adolescent girl, were asked to "put on a good act of faked total blindness" in the laboratory for the deception of a staff member they both disliked. Both, because of their innate aggressiveness, agreed readily, and the experiments were conducted separately but with essentially identical results.

The procedure was as follows: Each patient was brought into the laboratory by the author and several colleagues, and they were engaged in a casual conversation directing their attention to another colleague sitting on the opposite side of the room laboriously watching the revolving screen and seemingly trying to make careful notations. Each patient was noted by all observers to develop optokinetic nystagmus as they curiously watched the revolving screen. The seating arrangement had been devised to prevent the patient from seeing any nystagmus in the eyes of the others present.

When adequate observations had been made, the selected staff member was summoned by a secret signal. He entered the room silently out of the patient's visual range while the patient was looking at the rotating screen and manifesting nystagmus. By prearrangement the staff member made known his presence by a scoffing remark about the patient, whose immediate response was one of immediate "freezing" of body mobility, including a loss of optokinetic nystagmus, although the patient continued to "look" in the direction of the revolving screen. A prepared explanation was offered to the staff member about the patient's sudden development of blindness, to which the staff member replied with disparaging comments although he approached the patient and waved his hands back and

forth as if testing the patient's vision. Then, quietly, out of the visual range of the patient, he left the room. Both patients reacted the same. Their rigid, frozen, unseeing behavior continued. The observers spoke freely to the patients, and they replied readily, but the only spontaneous freedom of movement for the patients seemed to be that of speech, and both patients made critical remarks about the staff member. Indirect tests were made for hypnotic phenomena. None was noted. When informed that the staff member had left the room, both patients "unfroze," and nystagmus returned. A casual conversation was initiated about the figures on the revolving screen. Again the staff member, upon the secret signal, reentered the room from another entrance well within the patient's visual field for both the screen and the doorway. Again both patients manifested the same remarkably inhibited behavior and again they did not seem to note the staff member's departure, this time by the doorway within the visual field. When told he had departed, their bodies seemed to relax or to become less tense, and the nystagmus recurred.

Later, efforts were made by the author and others to hypnotize these patients, but no hypnotic responses could be obtained. Both, however, boastfully volunteered "to fake a trance." Their offers were accepted, but experienced observers discredited their performances as mistaken efforts at simulation of hypnotic behavior.

## **SUMMARY**

This study indicates that optokinetic nystagmus can be a function of subjective perception of reality in normal persons and in patients with personality or character disorders. It also indicates that optokinetic nystagmus is not reliable for use in differential diagnosis of visual alterations of psychogenic origin.

## Acquired Control of Pupillary Responses

Milton H. Erickson

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An eight-year-old girl with a marked visual defect in one eye and a strabismus of that eye was under the care of an ophthalmologist. He had prescribed various eye exercises and the wearing of an eye-patch over the stronger eye to correct the suppression of vision in the weak eye. The girl performed her exercises faithfully, sitting in front of a mirror so that she could see what she was doing. During the course of therapy she became much interested in her pupils and soon discovered the pupillary responses to bright and dimmed lights. Since she was an excellent somnambulistic hypnotic subject and had had extensive experience with suggested visual hallucinations, some of which she intentionally remembered subsequent to arousal from the trance state, she became greatly interested in watching her eyes while "I thought different things." The wearing of the eye-patch was "thought about," and she watched the pupils of her eyes as she did this "thinking." She would "think about" bright lights, semidarkness, and visual hallucinations close in her eyes and far off in the distance. She became markedly aware of the difference in the visual acuity between her eyes, and she would hallucinate an eye-patch over her eye. She learned to dilate and to contract her pupils at will. Then she became interested in unilateral pupillary responses. This, she explained, was harder to learn, therefore more interesting. To accomplish this she "imagined" wearing an eye-patch and seeing with only the weaker eye. Then, undoubtedly aided by the learnings effected by the suppression of the vision in the weaker eye, she "imagined" seeing with only the normal eye while she "stopped looking" with the weaker eye. This uniocular effort of hers may also have been aided by a possible central fusion defect, which the ophthalmologist had suggested as distinctly a possibility during his first studies of her vision. In furthering uniocular behavior the girl had called upon her hypnotic experience to hallucinate a patch over one eye and a bright light in front of the other. There were variations of this, such as "imagining looking at something close by with one eye and at something else far away with the other," an item of behavior highly suggestive of the accomplishment of students who learn to look through a microscope with one eye while using the other in reading or sketching.

When it came time for a reexamination of her eyes, she sat demurely in the chair while the ophthalmologist proceeded with the task. After an initial look at both eyes, he made a careful study of the right eye, making notations of pupillary size and of other findings. Then he turned to her left eye and was startled to see the pupil widely dilated. He glanced hurriedly at the right eye and then made an intense, searching examination of the left eye, carefully recording his findings including pupillary measurements. Then he leaned back in his chair to study and compare the separate data he had noted. Much puzzled, he glanced reflectively at her eyes and was again startled, this time because both pupils were

equally widely dilated. He promptly reexamined the right eye, discovering nothing new except the dilation of the pupil. Again he studied his notations and again looked up to find that the right pupil was still dilated but that the left was markedly contracted.

His facial expression of astonishment and bewilderment was too much for the little girl, and she burst into giggles, declaring, "I did that." "But you can't, nobody can," was his reply. "Oh yes I can, you just watch." Thereupon she demonstrated bilateral and unilateral pupillary behavior, doing so in accord with specific requests from him. She explained to him, "All you have to do is look in a mirror and see your pupils and then you imagine you are in a trance and then you imagine looking at different things. You can look at different things that you imagine with one eye and at something else with the other, like looking at a bright light with one eye and the clouds in the sky when it's almost dark with the other, and you can look at things far off and right close by. You can imagine a patch over one eye and just seeing with the other. You can imagine all kinds of different things to look at in different kinds of ways with each eye."

Years later, at a seminar on hypnosis where she was present, this matter of pupillary control was mentioned. Several physicians challenged the possibility. Upon their request she obligingly demonstrated. At the time of the writing of this paper she was asked to read it for possible alterations or additions. When she finished, she remarked, "I haven't done that for years. I wonder if I can do it now." She began reminiscing about the framed mirror into which she had gazed, the overhead light she had used, the window beside which she had sat, and as she did so she demonstrated a retention of her original skill. She also added the comment that she could still, as she remembered doing previously, feel the contraction of the pupil, although the dilation as such was not felt. She could not explain better than to say, "You just feel something happening to that eye, but you cannot name the sensation."

### **COMMENT**

At first thought one would not think this sort of pupillary control possible, until reflection brings to mind the ease with which a conditioned response can be induced by a related light-sound stimulus, the evocation of the papillary response by the sound stimulus alone, and then a reconditioning of the pupillary response to a related sound-tactile stimulus with the papillary response then being elicited by the tactile stimulus alone, etc.

Also, undoubtedly important is the fact that many hypnotic subjects manifest altered pupillary behavior in the trance state. Most frequently this is a dilation of the pupils particularly in the somnambulistic state and the pupillary size changes when visual hallucinations are suggested at various distances. There are also pupillary changes that accompany suggestions of fear and anger states, and of the experience of pain. Also pertinent is the fact that this young girl was later discovered to be remarkably competent in developing autohypnotic trances to obliterate pain, disturbing sounds when studying, and to establish hyperacusia when background noises interfered with her normal hearing.

In brief summary, the report indicates that papillary responses ordinarily regarded as reflexes not accessible to voluntary control are, in fact, subject to intentional control.

# **A Study of Clinical and Experimental Findings on Hypnotic Deafness: I. Clinical Experimentation and Findings**

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The induction of a state of apparent deafness in a normal hypnotic subject constitutes a familiar but little tested psychological phenomenon. Significant questions centering about this manifestation concern first of all its comparability with organic deafness and secondly the nature of the processes entering into its production, whether as an actual or only as an apparent condition, together with the systematic problems that arise in distinguishing between "apparent" and "actual." To investigate these questions extensive clinical studies were conducted over a period of years on normal hypnotic subjects, and these in turn were followed by an experimental study, to be reported in Section II of this paper. The clinical investigations were directed chiefly to the question of the validity of the phenomenon, utilizing for this purpose various clinical tests and measures of hearing and, particularly, careful observation of the subjects' behavior. Emphasis was placed upon the latter, since it was felt that the clinical behavior and the subjective reactions might prove suggestive of various psychological processes and forces entering into the condition.

## **SELECTION AND TRAINING OF SUBJECTS**

Initially, more than 100 normal college students of both sexes, all of whom had been trained as hypnotic subjects, were used to develop a special technique to induce a psychologically consistent deep hypnotic trance. From this number approximately 70 were selected as sufficiently capable hypnotic subjects to be used for the induction of the more stuporous trance and the profound somnambulistic state, as contrasted to ordinary deep hypnotic sleep, which were considered necessary for reliable experimental results. From this group 30 were selected as especially capable of developing such profound trances, and these were then employed for this study.

The rationale for such a high degree of selection may be stated as follows:

Past experience had demonstrated repeatedly that a deep trance, characterized by catalepsy, automatism, hypersuggestibility, and profound amnesia, often permits the subject to retain a definite capacity to react in a spontaneous volitional manner apart from the demands of the hypnotic situation and in keeping with waking patterns of behavior. Thus in such trance states behavior may actually consist of a mixture of responses to the immediate hypnotic situation and responses deriving from ordinary waking behavior. Since the contemplated experimental work necessitated the overthrow and negation of

ingrained patterns of normal response and behavior, and since the study was concerned with the character of the manifestations rather than with the frequency with which they could be induced, it was considered essential to secure subjects capable of responding fully and completely to the difficult hypnotic suggestions to be given. Such subjects would be those whose responses could be limited to the immediate stimuli of the hypnotic situation uninfluenced by their usual associative and habitual modes of reaction, and who would not feel a need to continue in contact in some way with waking reality, thus eliminating sources of error arising from faulty, incomplete, or superficial trances.

The actual details of the technique employed are too extensive and laborious to be reported in full. Essentially the procedure consisted of the induction of a deep trance, followed by a deep hypnotic stupor and succeeded in turn by a profound somnambulistic state. Thus, after the first selection had been made to secure subjects capable of deep trances, attention was directed to the induction of stuporous trance states. A slow, systematic technique of graduated suggestions was employed. On the average, two hours of systematic suggestion for susceptible subjects were given before they were considered to have reached a sufficiently stuporous state, which closely resembled a profound catatonic stupor.

The next step in training was the teaching of the subjects to become somnambulistic without lessening the degree of their hypnosis. Usually the procedure with deeply hypnotized subjects is to suggest that they open their eyes and act as if they were awake. Long experience on the part of the experimenter and his colleagues has shown, however, that in somnambulistic states thus crudely suggested critical observation can detect a definite mixture of normal waking and hypnotic behavior leading to unsatisfactory findings and to a more or less ready disorganization of the somnambulism as a state in itself.

To avoid such difficulties and uncertainties, a special technique of suggestion was devised by which subjects in the stuporous trance could slowly and gradually adjust themselves to the demands of the somnambulistic trance. Usually an hour or more was spent in systematic suggestion, building up the somnambulistic state so that all behavior manifested was actually in response to the immediate hypnotic situation, with no need on the part of the subjects to bring into the situation their usual responses to a normal waking situation. Essentially this training was directed to a complete inhibition of all spontaneous activity, while giving entire freedom for all responsive activity. The final step in the preliminary training was the repetition of the entire process over and over again at irregular intervals during a period of a week or more, until it was possible to secure the stuporous trance and the somnambulistic state within 10 minutes.

When this preliminary training had been satisfactorily completed, measures were taken to prepare subjects for the investigative work, of which they were entirely in ignorance. The steps in this procedure were:

1. A clear, concise, emphatic statement that it was proposed "to hypnotize" the subject into a "state of absolute deafness."

2. The statement that, as this was done, hypnotic suggestions would be given which would cause slight difficulty, and then more and more difficulty, in hearing until finally all sounds, including the hypnotist's voice, "would fade into nothingness."
3. The statement that, as all sounds faded away, subjects would receive a sharp slap on the shoulder which would cause "the utter silence of absolute deafness," and that *ever afterward whenever they were in a deep trance*, merely a blow on the shoulder would produce "instant and absolute deafness."
4. The statement that the deafness would persist unchanged and complete until their right wrist was squeezed, or until they were informed definitely in some way to recover their hearing, whereupon their hearing would return "instantly and completely."
5. The induction of a state of amnesia for all commands and instructions, the amnesia to be present continuously for all future trance, posthypnotic, and waking states.

These instructions were given slowly, emphatically and impressively, and were repeated many times to insure full comprehension and acceptance.

Upon the completion of this preparation the following series of suggestions was given slowly, repetitiously, and insistently, progressing gradually from one type to the next as each subject seemed to accept them:

1. Realization that deafness *could* be achieved.
2. That it *would* be achieved.
3. That it was an absolute reality of the *future*.
4. That it was an *impending actuality* of the moment.
5. That the subjects were now *preparing to become* totally deaf.
6. That they were *now prepared* and ready.
7. That they were now *awaiting the total deafness* to ensue upon suggestion.
8. That they were now *getting* deaf, that sounds *were fading out*, that the silence was *getting deeper*, that it was *harder and harder* to hear, that they felt themselves growing more and more deaf.
9. Finally, they were given a rapid series of loud, emphatic, and absolute instructions to become deaf, totally deaf, with the experimenter's voice gradually fading out as these instructions were concluded.

The cessation of the verbal suggestions culminated in the prearranged physical stimulus. A few moments of rest were allowed, and then, as a reinforcement, pressure was applied to the shoulder, at first gently and then with increasing force, until each subject's facial expression indicated discomfort, whereupon the pressure was slowly released. After a few moments some simple clinical tests were made, followed by restoration of hearing in accordance with the established physical stimulus. After another short rest repetitions were made of the whole procedure, gradually decreasing the verbal aspects until the physical stimulus alone proved sufficient. The time required to induce the first deaf state ranged from 20 to 40 minutes, an interval indicated by previous experience with other

hypnotic subjects as requisite to achieve the mental set permitting a consistent, reliable state of deafness to develop.

## **CLINICAL FINDINGS**

The clinical findings made were obtained by (a) direct observation of the subject's behavior by the experimenter and his assistants; (b) subjective reports obtained either at the time or subsequently by written or oral inquiry depending upon the subject's state of hearing; and (c) the execution of various procedures by the subject.

The clinical findings varied in number, kind, character, and combination from subject to subject, precluding classification by subject groups and making necessary classification according to general types of reaction, the various items of which will now be illustrated and discussed.

### **1. General Hypnotic Responses**

Although the 30 subjects selected were capable of developing the usual deep hypnotic trance characterized by the phenomena cited above, approximately one-third, to be referred to as Group *A*, failed to develop the stuporous trance. A second third, Group *B*, went into the stuporous state but failed to develop the desired profound somnambulistic state. The remainder, Group *C*, developed both the stupor and the profound somnambulistic states, and it is of significance that these were the subjects who showed the more marked changes in the experimental situation. However, Groups *A* and *B*, who manifested the lesser degree of auditory impairment, did develop somnambulistic states of the apparently more superficial character usually employed in hypnotic work. Also, regardless of the apparent depth of the trances, the entire battery of hearing tests was administered to all subjects whenever possible. Of the total of 30 subjects, 10 were eliminated entirely by the tests as showing no form of deafness, six were found to be apparently totally deaf, and 14 showed various degrees of impairment of hearing.

### **2. Impairment of Auditory Functioning**

*a. Fluctuation of Auditory Threshold.* (a) *Progressive increase in deafness.* This type of reaction was found consistently among the subjects in Groups *A* and *B* and also, to a much less extent, in Group *C*. The typical fluctuation of the auditory threshold resulting in progressive increase in deafness was as follows: Certain subjects claimed to be able to hear all sounds but explained that the sounds were changed in character by being faint and distant. In conversation, they seemed to experience a considerable degree of difficulty in distinguishing words spoken in a normal tone of voice. This difficulty, however, could be lessened by raising the voice. Soon this raising of the voice would prove to be insufficient, and they would explain that the experimenter again seemed to be "mumbling," although his voice had been maintained at a constant level. Elevating the voice still more would again enable the subject to hear more clearly, but each time this was done, as the conversation was prolonged, the subject would experience increasing difficulty in hearing clearly, and he would explain that the experimenter's voice was

slowly becoming a mere "mumble." Furthermore, it was discovered that a conversation conducted in a tone of voice sufficiently loud to be audible in the same loud tone of voice, would be described by the subject as indistinct "mumbling." Also, it was learned that the "faint sounds" reported heard at the onset of the deafness tended to drop out as the subject became increasingly deaf to the experimenter's voice, and a subjective report of "complete silence" could be obtained.

To investigate further, the subject was blindfolded so that he could not watch lip movements. A long series of remarks was made to him in an increasingly loud tone of voice. Suddenly the remarks were interrupted, and silence was maintained for a minute or two, following which the remarks were continued in the same loud tone. However, a period of one to two minutes would elapse before the subject became aware of the resumption of the speech, which he would describe then as a "mumbling." Also, while still blindfolded, if a series of remarks were addressed to him in an increasingly loud tone of voice, and then the voice was suddenly dropped to a normal level without interruption of speech, the subject would remain unaware of the continuance of the remarks until after one to two minutes. Then again he would begin to hear vaguely and indistinctly, and inquiry would disclose his assumption that the experimenter had remained silent for a while. Continued investigation disclosed that this indistinct hearing would persist about a half-minute and would then fade out. After another one to two minutes of continued speech, he would again hear indistinctly for a brief interval, and this manifestation, highly suggestive of a process of summation of stimuli, could be continued indefinitely.

(b) *Progressive decrease in deafness.* Certain other subjects manifested an opposite reaction. They would disclaim any ability to hear, and their general behavior confirmed this contention. Nevertheless, if a series of remarks was addressed to them, they would, after about a minute's delay, gradually begin to hear faintly and then more and more distinctly until the experimenter's normal tone of voice became fully audible to them.

Cessation of speech for a minute or two followed by a resumption would again meet with complete deafness, which would slowly decrease in degree after a minute or two until the subject could again hear plainly. Continued repetition of the process slowly reduced the period of apparently complete deafness to about 30 seconds and increased the rate of complete restoration of hearing. Similarly, a longer period of silence would delay the beginning of and prolong the period of restoration of hearing. Blindfolding seemed to delay markedly the gradual decrease in deafness, in one subject for a period of five minutes consistently, but in no instance did the deprivation of visual cues prevent the process.

For both groups the investigation was continued with a variety of sounds, including electric buzzers, bells, tuning forks, and alarm clocks, as well as the voice of an assistant, with essentially the same results.

An interesting clinical difference between these two groups was their subjective reactions to their auditory difficulties. Those showing primarily progressive increase of deafness tended to ascribe their difficulty to themselves, explaining that the experimenter "seemed

to be mumbling," that sounds "seemed to be faint and distant," and that their ears seemed "stopped up" as from a cold or from "getting water in them from swimming," and they would strain to hear, shake their heads, and finger their ears. Those showing primarily a progressive decrease tended, on the other hand, to project their difficulties on the experimenter, explaining their difficulty by complaining that he was speaking inaudibly at first and then gradually raising his voice to an audible level. When questioned about other sounds, the explanation was offered that the experimenter was utilizing an electric control over the intensity of the sounds. No effort was made to correct their views, since only their spontaneous reactions were considered significant.

*b. Impairment of spatial localization and time relationships.* In all of the subjects showing impairment of hearing there was found to be a marked decrease in the ability to locate sounds spatially and to determine time relationships. Since the findings were essentially the same for all of the subjects, they may be illustrated by the following specific account. One subject, who declared his ability to hear all sounds faintly, was urged to listen carefully and to identify the next noise he heard. The sound employed was that of a concealed alarm clock with an intermittent alarm which rang for one-minute periods at five-minute intervals. Not until some time after the alarm began ringing did he seem to hear it, whereupon he began listening in a strained fashion, first in one direction and then in another, while his eyes searched the floor, the walls, and the ceiling in his endeavor to locate the sound. This behavior continued for a full minute after the alarm ceased to ring. Then, after a sudden start, he listened intently and declared that the sound had ceased. Immediate questioning by paper and pencil concerning the character of the sound elicited the answer, "*I couldn't tell. It was just a faint noise.*" There followed the spontaneous observation, "*And what's more, I can't even tell you where it came from.*" The suggestion was offered that he "might like to find out what it is," and when the alarm rang again, he suddenly declared, after a delay of some 30 seconds, "*I hear it*" and began to wander about the room in a vague, confused, uncertain fashion, listening intently in an effort to locate the sound. It was noted that he continued his search for about a minute after the alarm had become silent, whereupon he declared, "*It's stopped again,*" nor did he show any apparent realization that his time relationships were wrong. Repeated attempts were made before he succeeded in locating the place of concealment for the clock. Subsequently the clock was secretly removed to a diagonally opposite corner of the room. It was noted that he continued to listen in the direction of the former location and failed to detect the altered direction of the sound even when he approached the supposed place of concealment to listen more closely.

This was followed by the use of two clocks adjusted to ring in immediate succession, the one ringing first located in the original place of concealment, and the second in another corner of the room. The subject was instructed again to find out what the sound was. As previously, after a delay of about 30 seconds, he heard the sound, located it correctly but uncertainly, and failed completely to note any change in location when the second clock sounded. Later the clocks were shifted to various locations, but the first localization achieved in each instance sufficed for the other sound.

Another variation consisted in adjusting the clocks so that the second alarm would follow the first at selected intervals. Since the subject tended to hear subjectively from 30 to 60 seconds after the sound had ceased, it was found that an interval between the alarms greater than this lag was necessary to permit the subject to realize that the sound had ceased and then had begun again. Also, there was found to be no time lag in the detection of the second sound. Various types of sounds were employed, the subject was blindfolded, definite instructions were given to localize sounds, but essentially the same results were obtained. Even the pairing of an electric buzzer with a clock or a tuning fork, although the difference in sound was detected, failed to aid in localization; rather it served only to make the subject more uncertain. A significant additional observation was that those subjects considered by the experimenter to manifest the less satisfactory somnambulistic trances showed less time lag in detecting and the greater ability in localizing sounds, but even these subjects showed a perseveration of first localizations.

*c. Impairment of sound discrimination.* While investigating the loss of ability to localize sounds in those subjects continuing to hear faintly despite suggestions of a deafness, the experimenter had read aloud slowly from a book while the subject watched and listened intently. At a prearranged passage an assistant concealed behind a screen continued the reading while the experimenter silently mouthed the words. The altered character and location of the sound was not noted even after many repetitions, nor was the use in one instance of a feminine voice. However, cautious inquiry did disclose that during the reading a brief passage had been decidedly more difficult to hear, but that this difficulty had cleared rapidly. Inquiry failed to identify the particular phrases causing the increased difficulty in hearing, but the subject's uncertainties when questioned about the last phrases read by the experimenter and those read first by his substitute were suggestive of auditory threshold changes unperceived by the subjects.

While investigating spatial localization by the use of two alarm clocks, among those used were clocks with different-sounding alarms. This was not detected by the subjects. Tuning forks of different notes were also employed without detection. However, when an electric buzzer was paired with a tuning fork or an alarm clock, the difference was noted but only after a time lag of 10 to 20 seconds. A final investigative measure was to inform the subject that he was to listen to a series of sounds given at intervals of two minutes and that he was to note whether or not they were all the same. During the first two trials he was allowed to watch the experimenter operating a single key on a dummy keyboard while the sounds were actually produced by the secret operation of a concealed keyboard. He reported that the same sound had been made repeatedly. For the additional trials he was blindfolded. In each instance, in a random fashion, different-sounding buzzers, bells, tuning forks, and clocks had been employed, but the only difference reported was that of volume, the subject being quite certain that only one sound had been employed.

### **3. Selective Deafness**

Certain of the subjects were noted to exercise a peculiar, selective process in becoming deaf, some doing this spontaneously, and others stipulating, for reasons to be discussed

later, that they be allowed to hear certain sounds, a stipulation which in itself is significant.

Three subjects in particular seemed to be unable to accept intellectually the suggestions for deafness. They were amused by the experimenter's inquiries, conversed freely, and demonstrated full hearing ability until a chance incident disclosed that the first of these subjects was hearing only the usual expected sounds appropriate to the situation. The dropping of a pencil, footsteps and voices outside the door, and street sounds were picked up more readily than by the experimenter. However, during the conversation a button was accidentally pushed on a concealed keyboard sounding an electric buzzer. This was not detected by the subject, who laughingly commented on the squeaking of the experimenter's chair as he leaned back. Following this discovery extensive systematic investigations were conducted, and it was found that any number of sounds could be produced without the subject's knowledge. He was given the task of reading aloud slowly and distinctly, while the experimenter ostentatiously timed him with a stopwatch and made extensive notes. During the reading an electric switch was secretly operated, sounding a loud buzzer, almost imperceptibly at first and then more and more noisily, but he failed to notice it or to react to it by raising his voice, although it was noted that an automobile horn, the street car, or other disturbing sounds would evoke this response.

The investigation was continued by blindfolding the subject. Deprived of visual cues, he apparently reacted to his situation as a totally new one in which he could expect anything to happen, with the result that no evidence of any deafness could be discovered. At another session, unblindfolded, he was again found to be deaf to the sounds he had heard when blindfolded.

Similar results were obtained with the other two subjects with the exception that both, after the blindfolding experience, seemed to regard the test noises as expected sounds and hence were no longer deaf to them, but they were still deaf to new test sounds. In addition, it was found with one subject that prolongation of electric buzzer or bell sounds for five or more minutes would break down the deafness, and the subject would slowly begin to hear it and thereafter would continue to be able to hear it. Apparently summation processes developed in this subject.

Another form of selective deafness was that shown by one subject who had an exceedingly strong prejudice against being seen in the trance state by a third party. Previous experience had shown, however, that he was willing to go into a trance in the presence of others providing they were blindfolded. During the experimental work he was found to be deaf to all sounds except the experimenter's voice and to those sounds seemingly constituting a threat to his prejudice, such as a knock at the door, footsteps in the corridor, or someone calling to the experimenter from outside the room, and so strong was his objection that he would tend to awaken immediately despite the fact that he knew the door of the laboratory to be locked. This prejudice suggested the following clinical test. With the subject's eyes cataleptically closed, a visitor, blindfolded to guard against difficulties should the subject awaken, was introduced surreptitiously into the room. A conversation was begun with the subject in which he participated to prove his contention

he could hear everything. The visitor joined in the conversation, addressed remarks to the subject, called him by name, but the subject failed completely to perceive the visitor's presence. In a later session the visitor was allowed to touch the subject, who immediately recognized the touch as alien, awakened, at once, but was entirely relieved by discovering that the visitor was blindfolded.

Still another type of selective deafness was shown by a subject from Group A. It was discovered that whenever the hypnotic state was induced, he spontaneously developed a total deafness for every sound except the experimenter's voice. There was never any need to instruct him to become deaf, and it seemed impossible for him to hear any sound more than briefly, even when instructed to do so. For example, he was told to converse with a third person while he was in the trance state. The first two or three remarks addressed to him were heard readily, but thereafter he would gradually cease to hear that person's voice even though he could see the speaker's lips moving. Instructed to listen to an electric bell, he would direct his attention as told, but almost immediately a spontaneous deafness would develop. Repeated efforts made to suggest directly a total deafness that would include the experimenter's voice failed completely, but a long period of silence on the part of the experimenter would result in the effective development of such deafness spontaneously. However, after the development of such deafness, continued talking by the experimenter while the subject watched his lips would serve to restore his ability to hear the experimenter, but a similar procedure with other speakers would fail. The results on all other clinical tests indicated total deafness for the subject. Further mention of this subject will be made in Section II of this paper.

#### **4. Hallucinatory Phenomena and Dependence on Visual Cues**

Certain of the subjects who reacted to total deafness with panic and shock reactions, to be described later, insisted upon being allowed to retain the ability to hear some chosen sound. When this concession was made, they developed apparently total deafness to all other sounds. Investigation soon disclosed that their wishes could be met by limiting their hearing to the single sound of a special clicking pendulum. Stopping of this pendulum was detected immediately and also invariably interpreted by them as the cue for the restoration of hearing despite instructions to the contrary. Apparently such a procedure was regarded as an absolute violation of the trance conditions. Resort was then had to the following subterfuge: Two pendulums were rigged, one sounding and concealed, the other silent and visible. Both were set in motion simultaneously, and the subject was allowed to associate the sound of the first with the motion of the silent one. Then, after the deaf state had been induced, the subject was given a written statement to the effect that he might watch the pendulum but that as he did so his ears would be stopped so that he could not hear it, and when he had ceased to hear it, he was to inform the experimenter. He was further informed that his ears would then be freed gradually so that he would first hear the sound very faintly and then more and more plainly as he watched the swinging pendulum. This instruction was repeated two or three times until the subject understood fully. Finally, when the subject's ears were fully obstructed, his mouth closed, and even his nose closed for the moment, an assistant secretly interrupted the sounding pendulum, permitting the silent, visible pendulum to continue its motion. The subject's

ears were then gradually released while he was instructed to watch the pendulum closely and to inform the experimenter as soon as he heard the first faint sound. As soon as he signified this, his ears were gradually freed entirely. In each instance the subject, convinced by his visual impressions, was content with a hallucinatory hearing of the pendulum sounds, and the substitution was never detected. Nor was the setting in motion again of the sound pendulum detected while the subject was contenting himself with hallucinatory hearing. Stopping of this silent pendulum without the subject's knowledge had no effect upon him, but when he was permitted to see the pendulum stopped, he immediately regained his hearing. Even before the employment of the two-pendulum subterfuge it had been observed that these subjects were dependent upon visual cues, since they consistently refused to be blindfolded for clinical tests without an absolute promise given not to stop the pendulum. Their explanation was that they did not want to be "tricked," an explanation suggestive of their subjective lack of reliance upon auditory experiences.

## **5. Associated Sensory Changes and Motor Disturbances**

Frequently in the induction of hypnotic deafness the subjects would spontaneously develop other physiological changes, apparently as an essential feature of the deafness. Thus one subject, who developed total deafness according to all tests, experienced a distressing decrease in vision. Reading was exceedingly laborious for him, as was writing, and his movements were groping and uncertain. In addition there was much subjective anxiety over his visual loss. Physical examination of his eyes disclosed widely dilated pupils, a failure of focusing, and irregular jerking movements of the eyeballs.

A second subject manifested a generalized anaesthesia, most marked in his arms and legs. Inquiry elicited from him that his limbs were "numb, feelingless, sound asleep," and it was not possible for him to move or to use them spontaneously. Careful tests failed to elicit any evidence of feeling in his hands.

Several of the other subjects manifested sensory losses with the deafness, but to a lesser degree. Efforts were made at first to correct these losses, but it was soon found that suggestions lessening the associated sensory disturbances had the effect of decreasing the degree of deafness. Also it was learned that in these subjects it was not possible to induce deafness unless they were allowed to develop other sensory disturbances. Furthermore, in subjects who previously had failed to develop deafness, a suggestion technique embracing other sensory disturbances-as, for example, combined deafness and anaesthesia-would often be effective. The spontaneous development of these sensory and motor disturbances may reasonably be regarded as confirmatory evidence of auditory changes, since they imply a marked disturbance of general functioning.

## **6. Apparently Total Hypnotic Deafness**

*a. Responses to clinical tests.* To investigate the apparently total hypnotic deafness manifested by some of the subjects, use was made of a great variety of clinical tests. These may be listed and illustrated by a few examples as follows:

1. Vibration tests:
  - a. Detection of and response to loud noises through vibration caused in floor, sounding boxes, etc., instead of response to sound itself.
  - b. Lack of confusion of vibratory sensations and sound sensations when sounding tuning fork is held in close proximity to ear while a silent tuning fork is pressed against the mastoid bone and vice versa.
2. "Startle" situations:
  - a. Lack of response to joke noisemakers such as inflated rubber bladders placed under chair cushions, trick boxes setting off explosive caps when opened, or making other sudden sounds, etc.
  - b. Failure of surprise reactions when, after repeatedly watching a tin pan dropped noisily to floor behind desk, the pan drops noiselessly into a secretly released net.
  - c. Failure to start, to turn head or eyes, or to show compensatory withdrawals or tensions to sudden, sharp, unexpected sounds.
3. Voice-raising and -lowering tests:
  - a. Failure to raise voice when reading aloud while an irrelevant continuous extraneous noise becomes increasingly disturbing.
  - b. Failure to lower voice or to falter at sudden cessation of disturbing continuous extraneous noise when reading loudly.
4. Social situations and involuntary responses:
  - a. Failure of response to interruption by a third party to subject's conversational remarks.
  - b. Failure to respond with perfunctory courtesies, as for example showing no response or hesitation, while returning his pack to his pocket, to the verbal acceptance of a proffered cigarette following an observed silent refusal.
  - c. Failure to show any response to deliberately embarrassing remarks made to subjects known to blush easily.
5. Psychological trickery:
  - a. Failure of the subject to include illegitimate data after the following procedure was followed: While the subject was deaf, apparently to inform the assistant, a long list of confusing associated facts, such as a genealogical tree, was read aloud repeatedly with much detailed discussion. A purported carbon copy from which certain data were omitted was given him as a "memory test," which he was to memorize and recall as completely as possible in a given length of time.
  - b. Failure to benefit by elaborations, given apparently to assistant, of written instructions.
  - c. Failure to benefit by casual assistance given during the oral translation of a long difficult passage.
  - d. Failure to develop sophistication or to show amusement when subject sees assistant tricked by joke noisemaker.
6. Conditioned responses:

Simple preliminary experiments on the establishment of conditioned responses based on auditory cues, and on the evocation of similar already established conditioned responses, were included as clinical tests. The significant results obtained gave rise to the experimental work to be reported in the second part of this paper.

Of the 10 subjects originally considered as showing total deafness, four were found to be only partially deaf. The remaining six, however, were found to be consistently deaf to all of these tests. These subjects were all from Group C.

*b. Behavior reactions to induced deafness.* All of the subjects employed manifested definite subjective reactions to the hypnotic deafness, and these reactions may be classified for convenience of description under three crude categories—(a) curiosity, (b) panic, and (c) shock—since they appeared in combination with one or another reaction dominant.

(a). *Curiosity.* Those showing predominantly a reaction of curiosity would manifest a considerable degree of astonishment at the onset of the deafness, and when reassured by the written statement, "Everything is all right just some experimentation-tell me what you hear," would manifest intense and decidedly childish curiosity and wonderment, dropping objects, listening vainly to watches, banging things, talking to themselves-particularly this last form of activity—often so self-absorbed that it was difficult to secure any satisfactory subjective account from them initially.

(b). *Panic.* Those who manifested panic reactions were decidedly difficult to manage. In producing deafness routine suggestions to allay fear reactions were always given, but these were worded carefully to avoid possible influence upon the general state desired, and hence they were often ineffective.

Despite this instruction a number of subjects displayed marked panic reactions, showing marked fright, probing their ears with their fingers, shouting that they could not hear, and asking importunately what had happened, since they had complete amnesia for the trance suggestions and often did not realize that they were at the time in a hypnotic trance.

Some, when their hearing was restored by the proper visual or tactile stimulus, were most emphatic in demanding that no further experimentation in regard to deafness be done with them. When persuaded to the contrary, much reassurance was required concerning the temporariness of the phenomenon, and the completion of each experimental session was marked by much subjective relief. These same panic reactions occurred, but to a lesser degree, in some of the subjects showing only impairment of hearing. Also, certain subjects reacted so strongly that in subsequent experimentation they refused to develop total deafness, insisting that they be permitted to retain the ability to hear some sounds, which has been described above.

(c). *Shock reactions.* The third category of behavior was that of shock reactions. These occurred chiefly among those who manifested apparently total deafness, although it was

shown to a lesser degree by those who manifested only auditory impairment. Induction of deafness was characterized by the more or less generalized associated sensory changes described above, accompanied by much physical tension, slowing of general reactions, and an appearance and complaints of severe physical discomfort which tended to disappear gradually. When, however, after having been made deaf, they were given a visual or tactile cue restoring their hearing, definite shock reactions appeared.

Immediately upon perceiving the cue, there would appear a violent tensing of the entire body, followed often by generalized tremors. Usually the subject would clasp his hands to his ears, and frequently his face would contort as if he were experiencing severe pain. The pulse rate, too, was noticed to increase, sometimes 30 to 40 beats per minute.

Respiration was frequently marked by gasping and deep sighing. Almost invariably the subject would speak in a loud tone as if trying to make himself heard above a noisy disturbance. After two to three minutes the subject would begin to relax. Not every subject manifested all of these symptoms-some showed only two or three and others showed all of them. Subjectively, they described it as most decidedly unpleasant and painful. One subject described his experience as "*just like being in the midst of a deep, peaceful silence and then being thrown forcibly into the din of a boiler factory going full blast. It's just painful, and it hurts you all over.*" Several subjects who experienced the more painful reactions, after one or two experiences, refused to permit further experimentation because, "*It's too painful.*" This refusal was met by developing a technique for slow restoration of hearing which, as sessions were repeated, was gradually abridged to a three- to five-second procedure. One subject, however, would not permit any shortening of the procedure, but insisted on a three- to four-minute period, since otherwise, she explained, she would develop a severe headache. This same subject also insisted, for the same reason, on being awakened slowly from a deep trance, and usually a period of three to five minutes was required to awaken her comfortably. Others did not develop the shock reactions at all, and still others overcame them spontaneously after two or three experiences.

## 7. Postexperimental Findings

Some weeks after completing the clinical investigations, a systematic inquiry was conducted with the subjects to determine their postexperimental reactions. In each instance the subject was found to have a complete amnesia for the whole experience, the usual report being, "*Well, I reported regularly, you would begin to hypnotize me, and then I would find myself waking up and you would dismiss me. I know sometimes you kept me as long as four hours, but I don't know what happened.*" Extensive questioning by an assistant failed to elicit any other significant information except the fact that frequently they were so fatigued after the session that they had gone to bed immediately.

Inquiry was then made in the form of a hypothetical question concerning their opinion about the possibility of inducing by hypnosis the various phenomena that had been elicited. About 15 of the 30 scoffed at the idea. The majority of these were those who failed to manifest any form of deafness, but most interesting was the inclusion in the group of two of the six showing complete deafness. About half of the remainder were undecided but inclined to be dubious, and these were chiefly those who had shown

various degrees of impairment of hearing although one of those showing total deafness was included. The remainder were uncertain but inclined to favor the possibility, advancing arguments best illustrated by the following remarks offered by one of those showing total deafness: "Well, take last Saturday's session. When I sat down for you to hypnotize me, I pulled out my watch and it said 6 o'clock. I started to put it back, and then I took a second look at it and it said 10 o'clock. But before I could figure that out, I noticed that it was dark outside, my coat and tie were off, my sleeves rolled up, and I was just about exhausted, and it really was 10 o'clock. Now, if I could lose consciousness like that, and it's happened lots of times, I think that you could lose hearing or sight or feeling the same way. It's probably the same sort of feeling."

Following this questioning the subjects were asked to behave deliberately as if they were deaf, and thus to impose upon the experimenter the task of proving, against their efforts and without their assistance, that they could hear. To avoid unintentional hypnotic responses an assistant administered the various clinical tests given in the discussion of total hypnotic deafness. All of these tests were failed, usually with full awareness on the part of the subjects of their failures, although in some of the vibration tests and some of the procedures involving psychological trickery the subjects remained unaware of failures. Also, not one of the subjects showed any of the phenomena elicited in relation to impaired hearing. Even a direct suggestion that they simulate impaired hearing failed to secure more than an obvious pretense. Apparently, despite actual past experience, they had no conception of what impairment might mean.

Finally, they were taken into confidence by the experimenter and an assistant and instructed to simulate deafness for the purpose of deceiving a second assistant. Despite the sophistication and coaching effects accruing from the previous attempt the test results were the same, since slight variations in the test procedures served to offset any control of their responses they had established. However, during this part of the investigation three of the subjects who suddenly began passing the tests after initial failures were found to have developed spontaneously a hypnotic trance, and repetition of the tests in an actual waking state resulted in complete failures.

## **SUMMARY OF CLINICAL FINDINGS**

The clinical findings obtained may be summarized briefly in the following two crude categories:

*1. Evidence of Changes in Auditory Functioning.*

- a. Alterations in auditory threshold.
  - (a). Fluctuations with progressive increase or decrease in hearing.
  - (b). Restriction to certain types of stimuli—"selective" deafness.
- b. Impairment of hearing in:
  - (a). Spatial localization of sounds.
  - (b). Discrimination of time relationships.
  - (c). Discrimination of sound qualities.
  - (d). Substitution of inner for outer stimuli—"hallucinatory" hearing.

*2. Evidence of Total Loss of Hearing.*

- a. Appropriate response to vibratory stimulation other than sound.
- b. Absence of "startle" reflexes.
- c. Failure of habitual, ingrained, or voluntary patterns of behavior arising from auditory stimuli.
- d. Complete limitation of responsive behavior to stimuli legitimate to the deaf state.

### **COMMENT ON CLINICAL FINDINGS**

In commenting upon these experimental findings, mention must be made first of the problem central to the whole investigation—namely, the question of the possible identity of *absence of response* and *absence of hearing*. Within the limits of this investigation the one is taken as indicative of the other, and likewise, alteration of response is regarded as evidence of alteration of hearing. Although pragmatically the same, the question of their absolute identity does obtain, but this question does not invalidate the experimental results. Furthermore, definite efforts were made to elicit the responses properly and ordinarily evoked by auditory stimulations, some of which were voluntary, others involuntary. Often no response of either sort could be obtained, and those that were elicited were incomplete, inadequate, or of a character not warranted by or consistent with the stimuli employed in their evocation. Such findings are inexplicable except on the basis of significant neuropsychic changes, induced in the subject by hypnotic suggestions, serving to produce a loss of response to sound identical in character with the loss found in organic deafness.

Because of the varied nature of the experimental findings and the many and diverse questions to which they give rise, comment will be limited to a brief discussion of some of the more significant considerations.

1. *The Hypnotic Technique.* The prolonged, systematic development of the stuporous and somnambulistic trance states, as contrasted to the usual rapid and, in the experimenter's judgment, more superficial induction of such states, probably contributed greatly to the final results. That such a technique served to establish a massive generalized state of "inhibition," rendering the subjects incapable of spontaneous responses and restricting them to limited responsive behavior, is possible, and rather than militating against the experimental findings, it suggests a possible explanation. Also, the obtaining of more extensive results from those subjects responding fully to the complete technique indicates a significant role for the profounder trance states.

2. *Progressive Increase in Deafness.* This finding suggests changes in the auditory threshold rendering previously appreciable stimuli subliminal. Particularly is this indicated by the appearance of the process of summation, which in turn suggests changes in conduction through alterations of synaptic resistances. With such summation processes it is difficult to explain this finding entirely as an inhibition of either responses or perceptual activity.

3. *Progressive Decrease in Deafness.* This finding is in accord with work on changes in sensory thresholds permitting detection, after repeated stimulation, of previously subliminal stimuli. As in the case of progressive increase in deafness, changes permitting processes of summation seem to enter into the condition also, as well as the possibility of various inhibitory processes. Concerning the subjective reactions to both progressive increase and progressive decrease of deafness, whatever the experience was for the subjects they identified it with actual past experience and thus endowed it definitely with a subjective validity.

4. *Impairment of Spatial Localization.* This unexpected finding, for which no suggestions were given, indicates directly a changed character of the auditory stimuli perceived. Whether it derives from failure of perceptual processes or from altered conduction and radiation of auditory nerve impulses is speculative, but its appearance does denote a significant change in hearing.

5. *Impairment of Discrimination of Time-Relationships.* This too, was a spontaneous and unexpected development, and it gives rise to such difficult questions as: What did the subject continue to hear after the sounds ceased? Was the time lag a function of summation processes? Why did the subjective perseveration of hearing of a sound blend into the hearing of a successive and different sound? Speculation is warranted on delayed perceptual processes, threshold changes, and processes of summation.

6. *Failure of Discrimination of Different Sounds.* This finding may be considered as arising at least in part from direct suggestion, but the persistence of some ability to hear and the actual ability to discriminate between immediately successive sounds implies other factors at work. The failure of memory processes indicates definite restriction of perceptual activity and a loss of various sound values for which immediate contrast was necessary. The ability to discriminate between immediately successive sounds of different character suggests no changes in conduction or radiation of nerve impulses, but the tests employed were not sufficiently refined to permit the detection of such changes. Hence conduction or radiation changes could be masked by the crudity of the tests employed. However, the partial or limited perceptual responses made suggest that failure of discrimination may be attributable to a number of factors.

7. “*Selective*” *Deafness.* Somewhat analogous to this finding is the instance of the person who sleeps soundly through a noisy disturbance yet awakens readily at the occurrence of a slight pre-selected sound, or the ability of experienced workmen to converse in natural tones in the overwhelming din of a noisy factory. These instances from normal life, as well as the experimental findings, suggest that it is possible to regulate the perception of sounds to those having certain perceptual values. However, an immediate question is: Is it not necessary to experience all sounds before a “selection” can be made? Hence the process would simply be an inhibition of perceptual responses. Or is the process one of “setting” the auditory thresholds so that it can be sensitive to only certain stimuli? This is suggested by the experimental findings on the subject who could hear a voice in the corridor outside the locked door but could not hear the same voice within the locked room, and hence altered in its secondary auditory qualities. Also, the experimental

situation left the subject free to "select" any sound, but apparently only those sounds having secondary attributes of "expectedness" or "appropriateness" could be "selected." Apparently hearing depended not only upon sound itself, but upon other qualities. Briefly the findings suggest that "selective deafness" or, conversely, "selective hearing" could occur only after the inception of various psychic processes of a nonhearing character, initiated by stimuli arising independently of sound itself and not constituting a part of the experience of hearing. Without such preliminary psychic activity sound stimulation remained subliminal in character. This is indicated also by the summation processes that could be induced. The selective deafness of the subject who objected to being seen in the trance state indicates the effectiveness, subjectively, of the deafness, and his ready response to an alien touch suggests the specificity of the sensory disturbance. The findings on the subject who developed deafness spontaneously despite efforts to train him to hear suggest that hypnosis had effected changes in him which precluded the development of perceptual processes. In brief this disturbance in auditory functioning seems to be one occurring in the states of hearing preceding perceptual activity and not a process of inhibition of perception.

8. *"Hallucinatory" Hearing.* This finding suggests that the auditory disturbance was of such character that actual sounds could not be differentiated from sound images, that reality attributes of sound had been lost, permitting an effective substitution of internal for external stimuli. That there was an actual loss in sound qualities is suggested by the failure of the subject to respond to the restarting of the sounding pendulum following his hallucination of it. Theoretically there should have been a marked contrast of a disturbing character between the sound image arising from inner stimuli and the renewed external sound. That there was no such contrast indicates significant changes in auditory functioning.

9. *Sensory and Motor Changes.* The associated sensory and motor disturbances developing spontaneously, either in association with the deafness or the hypnosis itself, may be regarded as significant confirmatory evidence that hypnotic states do alter psychological and physiological functioning.

10. *Apparently Total Deafness.* The totally negative results from a battery of varied clinical tests on six subjects, confirmed by results of similar character but lesser degree on other subjects, indicate that massive alterations may be induced hypnotically in auditory functioning. That auditory nerve stimulation did occur cannot be doubted, but what disposition was made of those stimulations may be speculated upon in the light of the evidence afforded by the lesser degrees of auditory impairment. That the clinical tests employed, despite their variety and directness or indirectness, were entirely adequate to detect complete absence of response is open to question, but the extensiveness of the auditory changes cannot be questioned. The conclusion is warranted that there was produced a condition not distinguishable from neurological deafness by any of the ordinarily competent tests employed. Essentially the problem revolves about the question raised above, namely: *Is being unconscious of a sound identical with failure to respond to a sound?*

11. *Subjective Reactions.* While confidence cannot be placed extensively in subjective reactions, even those objectively observed, nevertheless the consistency, the unpleasant character, and the intensity of the reactions manifested by the subjects of this investigation are indicative of subjectively tremendous alterations in neuropsychic functioning. They signify changes beyond the normal control of the subjects which had to derive from actual psychosomatic experiences. Accordingly, these subjective reactions may be regarded as constituting significant evidence of neurophysiological changes.

12. *Postexperimental Findings.* Despite full cooperation and earnest, sincere efforts the subjects failed to duplicate in the waking state the performance made possible by hypnosis, and even to realize the possibility of so doing, despite the fact that, unknowingly, they had undergone very clear experiences. One may venture the hypothesis that their failure in the waking state resulted not from incapacity, since capacity had been demonstrated, but from a mental set, contingent upon wakefulness, precluding the initiation of the remote preliminary mental processes leading to the actual performance.

# **A Study of Clinical and Experimental Findings on Hypnotic Deafness: II. Experimental Findings with a Conditioned Response Technique**

Milton H. Erickson

Revised and enlarged from a report given before the American Psychiatric Association at St. Louis, May 6, 1936; reprinted with permission from *The Journal of General Psychology*, 1938, 19, 151-167.

Several weeks after the completion for them of the clinical investigation of hypnotically induced deafness, reported in Section I of this paper, two of the subjects included in Group C, both males, who had manifested total deafness according to clinical tests, were used for further extensive study of the phenomenon by the technique of a conditioned response. These subjects, to avoid the possibility of sophistication, had not been subjected to the preliminary experimentation with conditioned responses reported in Section I, nor had postexperimental attempts been made to secure conscious simulation of deafness. This was done subsequent to the experimental work. Furthermore they were given to understand that the experimenter was now interested in an entirely new problem unrelated to any past work. No new training measures were employed, and the same technique for the induction of the deep sleep, the stupor, and the profound somnambulistic state was employed. Two other subjects were also employed, but for reasons to be given later the findings on them will be reported separately.

## **EXPERIMENTAL PROTOCOL**

The protocol drafted for this part of the study included the following steps:

1. The induction of a profound somnambulistic trance persisting throughout the entire working period.
2. The evocation of a muscular response by an electric shock.
3. The conditioning of this muscular response to an auditory stimulus.
4. The establishment and removal of a state of hypnotic deafness to determine its effect upon the auditorily conditioned muscular response.
5. Control investigations:
  - a. In waking state:
    - (a) Evocation of the established conditioned response.
    - (b) Establishment of another auditorily conditioned response.
    - (c) Subject's attempt to inhibit voluntarily this second conditioned response, followed by similar attempt to inhibit the first conditioned response.
  - b. In a second hypnotic state:

- (a) Establishment of a third auditorily conditioned response with no suggested deafness.
- (b) Evocation of first, second, and third conditioned responses.
- (c) Subject's attempt to inhibit voluntarily all three conditioned responses.
- (d) Attempt to establish a fourth auditorily conditioned response in a continuously deaf state.

## **THE APPARATUS**

The apparatus employed consisted of an electric resistance coil with a source of current, a two-way electric switch, hand electrodes, an electric buzzer, a recording tambour connected with a special closed rubber tube constructed like a pneumograph, a recording apparatus of highly sensitive electromagnetic markers, a long-paper kymograph, and smoked paper. Screens were used to conceal from the subject all apparatus except the electrodes and the closed rubber tube. By means of the two-way switch two circuits were established. With flow of current in the first circuit, the buzzer would sound and the subject would receive a shock in his hands, while the electromagnetic markers would record both the buzzer and the shock. A flow of current in the second circuit would operate the buzzer and its recording electromagnetic marker only. Hence the subject could receive an auditory stimulus without receiving a shock, but every flow of current to the hand electrodes was in conjunction with the sounding of the buzzer. The special rubber tube was wrapped about the right forearm of the subject and connected with the recording tambour so that the change in the volume of the arm occasioned by muscular contractions was graphically portrayed on the smoked paper of the kymograph. Adhesive tape was used to fasten the electrodes in the palms of the subject's hands, with his fingers fastened in a position of light closure over them.

Using this apparatus a conditioned response was developed as follows: By means of the hand electrodes, an electric shock of sufficient intensity to cause a direct contraction of the flexor muscles of the forearm was administered to the subject. The delivery of each shock was preceded immediately by the sounding of an electric buzzer. Thus the auditory stimulus was established as an integral part of the stimulus-complex evoking muscular contractions, thereby acquiring the same property of evoking muscular responses as did the combined stimuli.

## **THE EXPERIMENTAL PROCEDURE AND FINDINGS**

The subject was hypnotized deeply in a side room and led, with his eyes cataleptically closed, into the experimental room and seated comfortably in a chair. Following the completion of all connections with the experimental and recording apparatus, the subject was instructed firmly that "it was absolutely essential" that he "remain deeply, soundly asleep regardless of anything that may happen" until he received definite instructions to the contrary. He was to sleep deeply and restfully, permitting nothing to disturb his sleep, and moreover, as he did so, he was to "dream in very great detail about some one pleasant childhood experience, *repeating this dream over and over as time passes.*" The

purpose of this last suggestion was to establish a pleasant and, if possible, a dominating mental content far removed from the immediate situation.

In subsequent sessions the same general instructions were given, with the added instruction to repeat the previous dream. No other verbal instructions of any sort were given, and the actual experimental work was conducted throughout in silence except for the sound of the buzzer. Immediately after this preparation of the subject the kymograph was started and the first electric circuit, which included both the hand electrodes and the buzzer with their respective markers, was closed and opened at irregularly spaced intervals. Care was taken to have no constant time intervals between stimuli, and these intervals ranged generally from a fraction of a second to 15 or more seconds, although there were occasional intervals of several minutes. Also, any systematic grouping of the stimuli was avoided by grouping rarely and then at irregular intervals. The time required for each session ranged from two to four hours.

Four experimental sessions were held on succeeding days with each subject. The first session was devoted entirely to the giving of the combined stimuli of the buzzer sound and the electric current and to the securing of complete records on the kymograph showing the flow of current, the sounding of the buzzer, and the muscular contractions elicited, a sample record of which is shown in Figure 1.

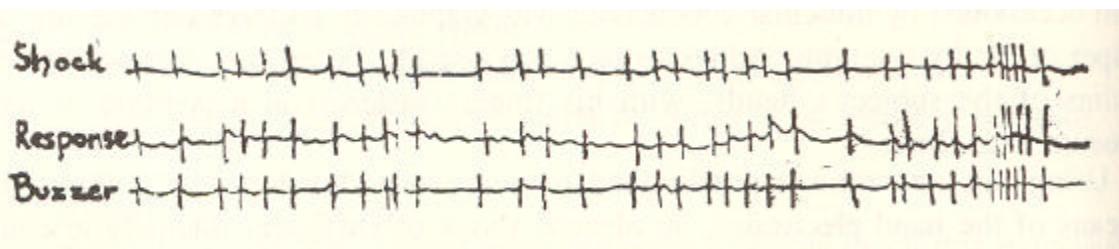


Figure 1. TYPICAL RECORD TO SHOW TRACINGS OBTAINED FOR THE SHOCKS GIVEN. THE MUSCULAR RESPONSE ELICITED, AND THE SOUNDING OF THE BUZZER. ALSO, THE IRREGULARITY OF THE STIMULATION MAY BE NOTED.

During the first session 200 combined stimuli were given, although ordinarily only 15 to 30 are necessary to secure conditioning under similar circumstances. However, it was felt that such long, continued stimulation would serve to establish an exceedingly stable condition response.

On the next day the training of the previous session was repeated to the extent of about 100 combined stimuli for the purpose of reinforcing the learning processes that had been established. The first test was then made for the presence of a conditioned response by operating the second electric circuit whereby the buzzer could be sounded without current being delivered to the electrodes. This auditory stimulus alone was noted to elicit a muscular response. After further reinforcement by combined stimuli, the remainder of the session was spent operating both electrical circuits in an irregularly alternating fashion, and obtaining an adequate record of the presence of the conditioned response. The records obtained disclosed it to be invariably present and sufficiently stable to withstand

20 to 30 successive trials before showing much evidence of experimental extinction processes. Complete restoration followed a rest period or further combined stimulation.

Five combined stimuli were given at the beginning of the third session, followed by a single auditory stimulus to determine the persistence of the conditioned response.

Although it was found present in each subject, a series of 50 combined stimuli was given for reinforcement, and this was followed by further testing. Finally the subject was given a sharp blow on the shoulder to produce deafness, and a long series of combined stimuli was given, after which his wrist was squeezed to restore his hearing while the combined stimulation continued. This procedure was repeated several times initially and frequently throughout the sessions, with no attempt made to test for the conditioned response, as a measure of preventing the subject from possibly associating the shoulder and wrist stimuli with tests for the conditioned response.

Following this, deafness was produced, and hearing was restored during the midst of series of combined stimuli and series of mixed, combined, and single auditory stimuli, produced by the operation of the two electric circuits alternately in a markedly irregular and confused fashion both as to the number, of times and the relationship to the deaf or hearing states established.

The records obtained, illustrated by Figure 2, disclosed the consistent presence of the conditioned response in all hearing states and its equally consistent absence in all hypnotically deaf states.

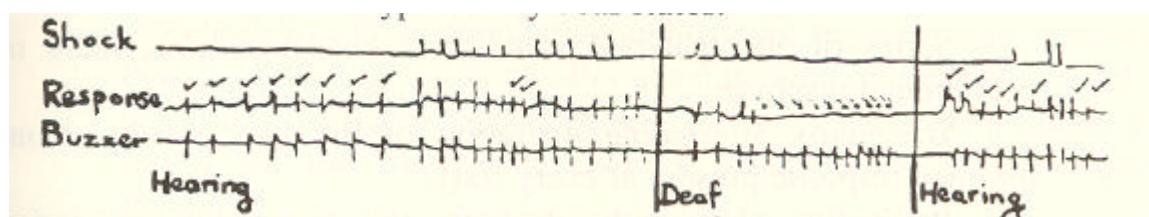


Figure 2. TYPICAL RECORD OBTAINED DURING THE THIRD SESSION SHOWING THE PRESENCE OR THE ABSENCE OF THE CONDITIONED RESPONSE IN ACCORDANCE WITH THE SUBJECT'S AUDITORY STATE.

The small check marks indicate the presence of the conditioned response, the arrows, the absence of the conditioned response.

The fourth session began with five combined stimuli, followed by a test for the conditioned response, which was found present in both subjects. Immediately the subject was rendered deaf by the blow on the shoulder, and a long series of combined stimuli was administered, totally 60 for one subject and over 100 for the other. At the close of the series a single auditory stimulus was interjected in the midst of a group of rapidly given combined stimuli to elicit, if possible, a conditioned response. Since this failed in both instances, the procedure was repeated after an even more extensive series of combined stimuli, but with the same negative results. Records obtained are illustrated in Figure 3.

There followed then a repetition of the procedure of the previous day to secure more records of the presence or absence of the conditioned response in accordance with the hypnotic auditory state. These were found to be consistent with those of the previous session.

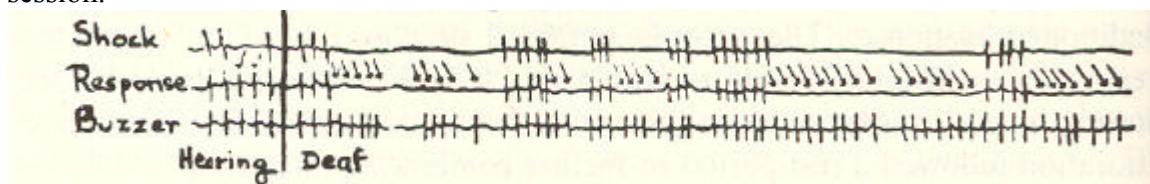


Figure 3. TYPICAL RECORD OBTAINED DURING THE FOURTH SESSION SHOWING THE CONSISTENT ABSENCE, AFTER BEING ELICITED IN THE HEARING STATE, OF THE CONDITIONED RESPONSE DURING THE DEAF STATE, DESPITE LONG, CONTINUED, AND REPEATED COMBINED STIMULATION.

Briefly the actual experimental procedure and results may be summarized as follows:

#### First Session—First Day

1. Series of 200 combined stimuli-shock and buzzer.
2. No test for presence of conditioned response.

#### Second Session—Second Day

1. Series of 100 combined stimuli—shock and buzzer.
2. Test for conditioned response—(found present).
3. Further reinforcement of conditioned response by combined stimuli.
4. Irregularly alternating operation of Circuits One and Two to secure adequate record of presence of conditioned response—(conditioned response present at every test).

#### Third Session—Third Day

1. Series of five combined stimuli.
2. Test for conditioned response—(found present).
3. Series of 50 combined stimuli for further reinforcement of conditioned response.
4. Irregularly alternating operation of the two circuits— (conditioned response present at every test).
5. Production of hypnotic deafness and restoration of hearing several times with administration of only the combined stimuli during these initial deaf states.
6. Production of hypnotic deafness in midst of series of combined or auditory stimuli with continued irregularly alternating operation of the circuits—(conditioned response consistently absent).
7. Restoration of hearing in midst of series of either combined or auditory stimuli with continued irregularly alternating operation of the circuits—(conditioned response consistently present).

#### Fourth Session—Fourth Day

1. Series of five combined stimuli.
2. Test for conditioned response— (found present).
3. Production of hypnotic deafness.
4. Long series of combined stimuli—60 to 100.
5. Test for conditioned response—(found absent).

6. Further repetition of (4) and (5)—(similar result).
7. Further repetition of (6) and (7) of third session—(similar results).

The completion of this actual experimental work was followed by control studies as planned in the protocol, but in combination with clinical investigations directed to the securing of additional significant data before undue sophistication of the subjects developed from the control procedures.

The succession of steps in these combined clinical investigations and control studies was as follows:

1. Extensive questioning of the subjects in the waking state and in an adjacent room by a third person and the experimenter without discovering any awareness of the entire situation or any specific recollections for the separate experimental sessions.
2. Repetition of this questioning in the experimental room both before and after making the connections with the experimental apparatus and giving the instructions to think freely and talk readily about anything that came to mind, without eliciting any further information.
3. Evocation of conditioned response upon closure of second circuit with a spontaneous subjective belief expressed that an unpleasant electric shock had been delivered.
4. Subject's report of a rapid decrease in the intensity of the shock until it was not perceptible, as the conditioned response was elicited repeatedly by proper stimulation and without reinforcement. Restoration of the feeling of a shock after a rest period occurred followed by a more rapid experimental extinction of that feeling upon continued testing for the conditioned response which remained consistently present.
5. Evidence of experimental extinction processes after 20 to 30 successive conditioned responses.
6. Restoration of conditioned response after rest period but followed by more rapid experimental extinction.
7. Restoration of conditioned response by combined stimuli, with spontaneous report from subjects that the current had been "turned on again very strong."
8. Rapid learning by subjects to discriminate the presence or absence of electric current but without effect upon the conditioned response.
9. Disclosure by the subjects of only irrelevant associations for the feeling of the shock and no recollection of any similar experience within the recent past.
10. The use of an associate's apparatus to establish a finger-withdrawal conditioned response based on auditory conditioning.
11. Failure of voluntary inhibition of this second conditioned response.
12. Failure of voluntary inhibition of the original conditioned response.
13. Delay of experimental extinction of both conditioned responses occasioned by attempts to inhibit them voluntarily.
14. Induction of a new hypnotic trance with instruction for a complete amnesia for all previous trance experiences and instructions.

15. Evocation of first as well as second conditioned responses.
16. Establishment in this hypnotic state of a third similar conditioned response based on an auditory stimulus.
17. Evocation of this third conditioned response in the waking state without additional training.
18. Induction of another hypnotic trance during which extensive insistent and emphatic instructions were given to the subjects, commanding them to inhibit both in the trance state and posthypnotically all three conditioned responses.
19. Failure both in the trance state and posthypnotically of all attempts to inhibit the conditioned responses.
20. Failure to evoke any of the conditioned responses after the induction of another deep trance and the production of the hypnotic deafness, but reappearance of the conditioned responses upon restoration of hearing.

Since the questioning done in Steps 1 and 2 of the combined clinical investigations had yielded no information, a deep hypnotic trance was induced, and the subject was instructed to recall in complete detail and in chronological sequence every event of each experimental session.

The recollections obtained in this way were essentially the same for both subjects. A statement was made covering the details of bringing the subject into the experimental room, seating him, putting "things" in his hands and around his arm, and telling him to dream. The subject then summarized the rest by stating that a long series of buzzer sounds and shocks had followed, while he absorbed himself in his dream. Further instruction was given that he must verbalize the events fully no matter how monotonous it became until he had actually completed recounting the entire session. There followed a long series of over 100 utterances of "buzzer-shock" irregularly spaced and grouped in a manner suggestive of the actual experience, after which an account was given of the disconnecting of the apparatus. One observation of note was that from the beginning the subject closed his hands each time he said "shock."

The second session was recounted in essentially the same way, with the continued closing of the subject's hands at the word "shock," an item of behavior that remained consistently present during the recollection of each of the experimental sessions.

In recounting the third session, after about 15 minutes of monotonous utterances of "buzzer-shock," the subject was noted suddenly to say "shock" only. Thereafter, in an irregular fashion, found by reference to the kymograph record to parallel crudely the actual experimental procedure, he continued to alternate the utterances of "buzzer-shock" and "shock."

The fourth session was begun with three utterances for one subject, four for the other, of "buzzer-shock," followed by a long series of "shock" alone, finally concluding with an irregularly alternating series of utterances of "buzzer-shock" and "shock."

As an additional measure adequate instruction was given to the subjects to the effect that a recollection of selected parts only of the experimental sessions would now be required, and at the proper verbal command they were to recall the specified part of any particular session. In this manner repetitions of their recollections were obtained in a systematically random order of the first and second halves of each of the four experimental sessions, and these repetitions were found to resemble closely the original recollections.

During the first recalling of the experimental sessions the experimenter had maintained a complete silence. The repetitions of parts of sessions required interruption of the subject by verbal commands, and this led to an unexpected discovery. By chance in the repetition of part of the third session the experimenter attempted to interrupt the subject while he was saying "shock" alone. No heed was given to the experimenter, and the instructions were repeated without attracting the subject's attention. They were again repeated while the subject was saying "buzzer-shock." An immediate response was obtained from him. Thereafter it was found that the subjects' attention, readily obtainable when they were uttering "buzzer-shock," could not be secured by verbal stimuli when uttering "shock." Observation was also made that as the subject shifted his utterance from "buzzer-shock" to "shock" alone, there occurred a marked change in his appearance, his face becoming more rigid and expressionless, his body tense, and his speech slightly slowed.

In brief the recalling of the experimental sessions was literally a reenactment of them with an actual reliving of the experience.

As a separate task each subject was ordered to narrate in complete detail the content of the dream he had been instructed to have during the course of the experiment and to repeat his narration of it as often as he had redreamed it.

The dream of one subject centered around a boyhood play activity, that of the other around an early visit to a theater, both dreams being pleasant, interesting, and rich in detail.

The narration and renarration of the dreams for the first and second sessions showed essentially no significant variations, occasional details being omitted and new ones included. However, in narrating the dream for the third and fourth sessions, certain significant variations in content occurred. Sometimes a small part of a scene, at other times a whole episode, was omitted, causing the previously fluent account to become patchy and even fragmentary in character. When questioned directly concerning these omissions, the subjects could reply only, "*I don't remember dreaming the next part this time. My dream stopped there, and then it began further on,*" and no explanation could be obtained from them. Study of the kymographic record in relation to the occurrence of the omissions of dream content suggested a direct relationship between the omissions and the periods of deafness, and hence the possibility of a different or deeper level of mental functioning. Accordingly the subjects were given additional emphatic hypnotic instructions to recall fully and completely every item of the dream as it had occurred. Following these instructions the narration of the dream proceeded without any omissions, but with certain new inclusions of an unpleasant character, not in keeping with the dream

content, and actually constituting apparently inexplicable distortions of the dream. Thus at irregular intervals the subject dreaming of his boyhood play activity interjected the statements of "He (one of the dream characters) hit me," or "He jerked me," while the other subject interjected statements about the "*man behind bumping*" him or of his seatmate "*grabbing*" his arm. These interjections were always followed by the change in appearance described above or by the disappearance of those changes. After several manifestations of this behavior an attempt was made to interrupt the subject's narration of the dream by questions. It was found impossible to secure his attention while this change in appearance persisted, but verbal interruption was readily possible at any other time. Careful indirect questioning concerning experimental events disclosed that after such "hitting" or "bumping" the events of the experimental session were consistently recalled as "shock—shock—shock," and that after the "jerking" or "grabbing" they were recalled as "buzzer-shock, buzzer-shock." Also, despite elaborate questioning no mention could be obtained of the wrist or shoulder stimuli as such. Rather, they seemed to have been assimilated into the dream content as "jerking" or "bumping" and not recognized for what they were. Also, indirect questioning concerning the sounding of the buzzer alone failed to disclose any realization of such an occurrence.

## **FINDINGS ON ADDITIONAL SUBJECTS**

The findings obtained from the third subject are given separately, since this subject, although not psychotic, was a patient in a mental hospital, had been given slightly different preliminary training, and had not been accessible for postexperimental investigation. The experimental results obtained were definitely confirmatory but were marked by the following peculiarities:

1. The conditioned response obtained invariably underwent experimental extinction after six to 10 trials, and restoration required a considerable amount of retraining.
2. Hypnotic deafness tended to develop spontaneously, seriously handicapping the development of a conditioned response and frequently accounting for an apparent experimental extinction.
3. An extensive hypnotic anaesthesia tended to develop spontaneously, interfering seriously with perception of the electrical stimulus.
4. Hypnotic deafness could be produced or abolished only by slow measures, one to five minutes being required for the development of deafness after the shoulder stimulus had been given, and similarly for the restoration of hearing after the wrist stimulus.

However, extensive experimentation did disclose:

1. That in a deep hypnotic trance a conditioned response based on an auditory stimulus could be produced, and this conditioned response, after undergoing experimental extinction, could be restored promptly upon additional training.
2. That the development of hypnotic deafness, either spontaneously or responsively, abolished this conditioned response and precluded its reestablishment by long-continued training.

3. That restoration of hearing would result in the reappearance of the conditioned response and would permit its reestablishment after experimental extinction.

The fourth subject had been recommended to the experimenter as capable of readily developing exceedingly stable conditioned responses. He was given the same hypnotic training as the original two subjects and underwent the same experimental procedure for the first two sessions, but without developing any conditioned response. At a third session he was given approximately 500 combined stimuli with periodic tests for the presence of a conditioned response. Since even this extensive training failed to establish a conditioned response, a clinical investigation was made. This soon disclosed that the subject, upon being hypnotized, spontaneously developed a deafness for all sounds except the experimenter's voice and that a period of silence on the part of the experimenter would result in deafness even for this voice. Repeated unsuccessful efforts were made to train the subject to retain his hearing, but apparently the spontaneous deafness constituted an essential element of the deep trance for him.

Following these failures, an attempt was made, while the subject was in a deep hypnotic trance, to elicit the other auditorily conditioned responses he had developed in the waking state for the worker who had recommended him. These could not be elicited.

At another session, in the waking state, the subject was tested for the previously established conditioned responses which were readily elicited, although there had been no intervening training. He was then tested for a conditioned response to the training the experimenter had given him, but none was elicited. After several trials, he was given five combined stimuli, and upon testing, he manifested a conditioned response. Reference to his previous learning records disclosed the appearance of a conditioned response after six combined stimuli, and hence no statement can be made concerning any economy in learning.

After the establishment in the waking state of this conditioned response, the subject was given extensive training for several days. Following this, he was hypnotized and attempts were made to elicit the established conditioned response. These attempts failed as did an attempt to reestablish the conditioned response by further extensive training in the trance state. Tests for the previously established conditioned response also failed. Tests made immediately upon awakening disclosed all of the conditioned responses to be present.

## **SUMMARY OF EXPERIMENTAL RESULTS**

The experimental results obtained may be summarized as follows:

1. After repeated stimulation by a stimulus complex consisting of an electric shock and an auditory stimulus, a muscular response in a hypnotic subject was evoked invariably by the auditory element alone, constituting a conditioned response.
2. This conditioned response was consistently present under ordinary hypnotic conditions and was sufficiently stable to permit 20 to 30 successive evocations before showing much evidence of the process of experimental extinction.

3. The induction of hypnotic deafness invariably abolished this conditioned response.
4. The hypnotic restoration of hearing invariably permitted the reappearance of this conditioned response.
5. Various appropriate control procedures disclosed the following results:
  - a. Similar and consistent results in relation to other auditorily conditioned responses established either in waking or hypnotic states.
  - b. The failure of all attempts to establish an auditorily conditioned response in a susceptible subject rendered hypnotically deaf as a preliminary measure with ready establishment after restoration of hearing
  - c. The failure to inhibit voluntarily in waking or trance states either the experimental conditioned response or those employed in the control studies.
6. Confirmation of experimental results was obtained by further work on two additional subjects, yielding comparable though not identical results.
7. Significant interrelationships were determined between the various auditory states induced during the experimental procedure and the subjects' subsequent hypnotically elicited recollections of the experience.

### **COMMENT ON EXPERIMENTAL FINDINGS**

Comment on the experimental findings, as in the preceding clinical section of this paper, requires the same orientation to the general question of the identity of being unconscious of a sound and failure to respond to a sound. The experimental findings with the conditioned response technique indicate that, in addition to failure of response, there was an actual failure to receive stimuli sufficiently either to establish the neurological process of conditioning or to activate such a neurological process already established.

However, when it is considered that a conditioned response may be established and evoked without there being a conscious awareness of the conditioning stimulus, the question arises: Is conscious awareness itself an essential element in evoking a conditioned response based on a conditioning stimulus for which there was a conscious awareness? Hence, before any conclusion can be drawn from these experimental findings concerning the identity of being unconscious of a sound and failure to respond to a sound, provision must be made for the possible alteration of the stimulus complex by the loss of the secondary attribute of conscious awareness. Such loss might account for an inability to respond to the stimulus complex. On the other hand the control investigations, as well as the failure of attempts in the experimental situation to build up a conditioned response not including the element of conscious awareness, indicate an actual failure to receive stimuli, not attributable to the loss of an element previously present in the stimulation. Accordingly the experimental findings warrant the conclusion that in addition to being unconscious of a sound there was an actual change in the capacity to utilize sound stimuli, if not an actual incapacity to receive them.

Additional comment is warranted by various of the secondary findings made, and these will be mentioned briefly as follows:

1. *Subjective recollections.* No particular significance may be accorded the waking amnesia for trance events, since such amnesia characteristically succeeds deep hypnosis. Likewise, the detailed recollection of the experience in response to hypnotic suggestion is an expected result. Nor is the persistent nonrecollection of the shoulder and wrist stimuli remarkable, since properly they were only a small part of a total experience belonging to the training period and hence were not recognized as belonging to the experimental experience. Likewise, the assimilation of those stimuli as part of their dream content illustrates a well-known phenomenon.

However, the peculiar omission of those parts of their recollections directly related to the periods of deafness, coupled with the marked change in appearance and the spontaneous development of deafness, does constitute an item of interest. One may speculate upon the possibility of different levels of cerebration, with suggested deafness causing functioning at a level different from that serving for ordinary deep hypnotic sleep. Contrary to this, the continuance of the dream without actual interruption suggests only a problem of accessibility rather than different levels of functioning. In brief the findings are suggestive of a type of conditioning in which the accessibility of certain experiences apparently depends upon remotely related but closely associated factors. At all events this peculiar amnesia indicates extensive changes in the subject governing and limiting voluntary responsive behavior.

2. *Other conditioned responses.* Although the experiment was centered primarily around a single conditioned response, various others of a more indirect character became evident. The induction of deafness or the restoration of hearing was in essence a conditioning; the closing of the hands at each utterance of the word "shock" illustrates another type of conditioned response; the physical and psychological changes in recounting completely the experiences of the deaf periods represent another type; and the limitation of utterances to the word "shock" while recounting the events of the deaf period and showing the associated physical changes constitutes still another variety of conditioning. Aside from the interest which each of these possesses, their consistency and invariability in this experiment implies a highly organized pattern of behavior in the subject dependent upon many unrecognized factors.

3. *Subjective experience of shock.* The belief of the subjects that a shock had been delivered when only the buzzer had been sounded during the early control procedures raises a difficult question. That the sensory experiences of the shock were conditioned by the buzzer, with this conditioning showing the characteristic processes of experimental extinction and of restoration after a rest period, is a possible explanation. The rapid development of an ability to discriminate between delivery and nondelivery of shocks after combined stimulation suggests the corrective effect of waking awareness, an effect not possible in the hypnotic trance, as was evidenced by the unfailing recollection in this state of all stimuli as including a shock. The appearance of such a corrective influence in the waking state suggests another difference in the neuropsychic organization between the waking and the hypnotic states.

4. *Ideomotor activity.* Throughout the whole postexperimental investigation, extensive ideomotor processes were consistently present. The entire recollection of the trance experience was given in the form of a reenactment and reliving of the experience. Similarly, the recounting of the dream content as a psychic experience included innumerable complex motor components. The immediate inference to be derived from the spontaneous development of such extensive ideomotor processes is that the entire course of experimental events constituted a valid and vital experience for the subjects. In consequence of this validity there derived extensive ideomotor processes directly attributable to significant changes in the neuropsychic organization.

### **GENERAL SUMMARY AND CONCLUSION**

The findings of this investigation, both clinical and experimental, disclose that the induction of a state of hypnotic deafness results in significant and extensive psychological and neurophysiological changes in auditory functioning comparable in degree and character with those arising from organic deafness. These alterations of hearing are both subjective and objective in character, and range from slight impairment of hearing to total deafness, as evidenced by failure of natural organic responses to auditory stimuli. The findings, although showing differences as well as absolute similarities from subject to subject, are entirely consistent within themselves and with each other, and are illustrative of established psychological and physiological processes.

# **Chemo-Anaesthesia in Relation to Hearing and Memory**

Milton H. Erickson

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What constitutes psychologically the experience of chemo-anaesthesia has been a question of much interest to this author since the summer of 1932. At that time two events occurred within the same period of time.

A fellow research worker and the author were discussing the problem of memory in general. Dr. A, a Ph.D., had undergone four years of intensive psychoanalysis, three of them under one analyst in the United States and a fourth year, since he spoke German most fluently, under Freud. His assertion that in that period of time he had undoubtedly exhausted all of his past memories was challenged, and this led to a decision to undertake a joint exploration of the possibility that he might recall forgotten past memories under circumstances entirely alien to the analytic situations in which he had explored his memories of the past.

As a pilot experiment two separate tasks were outlined. Dr. A was to make lists of a series of questions concerning possible memories of his childhood and about which he had no personal conscious memories and to list briefly but numerously the memories he had for each year of the first eight years of his life. In turn the author, being a licensed physician, was to take special instruction from a qualified anaesthetist who was fully acquainted with the intended experimental purposes, in the administering of ether anaesthesia to a surgical degree and the maintenance of that degree of surgical anaesthesia. Additionally he was also to make lists of a series of questions which he thought might apply to each of the first eight years of Dr. A's life, since both Dr. A and the author had grown up within a distance of 100 miles without knowing each other until they met in 1932. Both the author and Dr. A had had the same general background. Dr. A's lists of questions and memories were made available to the author but not vice versa.

Arrangements were made for a special recording to be made of the experiment by a secretary who had assisted the author repeatedly on other projects and was trained not only in shorthand but in observing and making notes of concurrent verbal and behavioral activities.

The conditions of the experiment included (a) ether anaesthesia of Dr. A to a surgical state as confirmed by a fellow physician whose living quarters were next door (a general precautionary measure), (b) the continuous presence of the recording secretary, (c) Dr. A's numerical lists of questions on possible but not remembered items that appeared as reasonable for a childhood such as his, (d) the author's own numerical lists of questions propounded partly from speculation from his own memories and from what seemed

reasonable for a child with a background similar to the author's and coming from an area of the country the author knew.

The plan also included a trial run of ether anaesthesia only with a close study of Dr. A by the author and the next-door physician to determine the probable duration of experimental sessions and Dr. A's period of recovery from the ether with prolonged maintenance of the surgical level and including the effects the next day, since the experiment had to be done outside the author's working hours. These initial findings were that the experiment could best begin at 6:30 P.M., would, with the questioning, last until 3 or 4 A.M. and that weekends were probably the days of choice for the author and the secretary by force of circumstances and best for Dr. A's postexperimental recovery from prolonged ether anaesthesia.

The experimental plan called for 10 such experimental sessions as a method of performing a pilot study which might later serve to interest others in a comparable experiment.

Six actual sessions, not counting the preliminary test session with the ether alone, were completed, each a most laborious task because of Dr. A's apparent surgical state of anaesthesia which was maintained by continued ether administration and tested by the usual measures and the random asking of the questions from either his lists, or from mine, or from both, this being done sometimes separately, sometimes in a mixed, but always a random fashion.

The questions were always asked at least three times, never more than five, sometimes in succession, sometimes in sporadic order, since there was no apparent way to determine whether or not Dr. A was listening or even hearing the questions. The same general casual tone of voice was used, the author sitting at Dr. A's head, and the secretary sitting so that careful watch could be kept on both Dr. A and the author to insure full recording.

After the anaesthesia had reached a surgical state, this was maintained for about 10 minutes to conform to the similar procedure on the preliminary test under the additional observation of the other physician.

Then 20 to 25 questions were asked in various order and with a varying number of repetitions, all of which was recorded by the secretary, including the number of drops of ether administered and the author's yawns, side remarks to the secretary, and the secretary's remarks and yawns.

After the asking of the questions, it became necessary to wait for Dr. A to begin to come out of the anaesthesia so that he could be asked what had occurred. Always the first manifestation was some restless stirring, then thick, slurring, incomprehensive utterances, which later would become understandable utterances, such as "Let me alone," "Want to sleep," and "Don't both me." Each time he would be reminded patiently that he was undergoing a memory experiment. Sometimes within a few minutes of intelligible speech

he would ask, "Did I remember anything?" At other times he would laugh uproariously and declare he had been asked "foolish questions."

In general summary it was learned that he could spontaneously—that is, without any leading question except "Were you asked something else?" or "What did you remember?" or "What comes to your mind now?"—recall questions asked him in deep surgical anaesthesia; that he recalled "forgotten" memories that had not come forth in his analyses; that he could remember 70 to 80 percent of the questions from his list; 50 to 60 percent of the questions from my lists; feelings of resentment when I mixed questions from both lists, and when I changed (deliberately) the wording of questions he had prepared. He also expressed irritation that I had "willfully" alternated questions from the lists, and had asked them in an order different from the actual order of his lists.

Of particular note was the fact that questions from both his and the author's lists had secured repressed or "forgotten" memories that had not come forth in either analysis and of which he disclaimed any memory until the ether experiences. Unfortunately we soon found that such recovery of memories was often transient. More than once, after he had discussed some of these memories, especially if they were traumatic, with the author and even with one or two other colleagues, he would again develop a complete amnesia for them as well as for the fact of even having discussed such topics.

Further use of ether would lead to the recovery of this again-repressed material and even of the fact that he had discussed it only to forget it, and then to deny that he had ever discussed such material.

One such instance concerned an obscene rhyme common to boyhood in that area, and later discovered by the author to be common elsewhere and in previous generations. The recovery of this rhyme came from the author's list of questions. He had speculatively quoted from the rhyme directly but not revealingly in several different questions. These were asked in different sessions but without eliciting more than a memory of the questions, and without evidence of emotional distress.

In the fourth ether session he was asked simply, "What comes after Johnny?" In the recovery phase of the anaesthesia he recalled this question, was obviously distressed by it, but some time elapsed before he repeated the entire rhyme. No additional information was obtained despite cautious questioning about where, when, and how he had learned it. The next day, late in the afternoon, he discussed this rhyme with the author and several others, disclaimed ever having heard it before, recalled having it flash into his mind "sometime last night." He was obviously intrigued by the rhyme and his previous ignorance of it, and those colleagues who did not know of the experimental work being done were allowed to carry the burden of the discussion. The author and the physician next door discreetly kept silent or made only purely casual remarks. The others insisted that surely he must have known the rhyme in his boyhood and Dr. A cooperatively speculated with them at what age he should have learned it. No evidence of emotional distress or hesitation on the part of Dr. A was noted, and he seemed to be merely amused and intrigued by this lacuna in his general knowledge.

Five days later it was learned that Dr. A had completely repressed all knowledge of the rhyme and even of his discussion of it.

At the next (fifth) ether session the same question was put to him while he was in deep surgical anaesthesia. This time upon reaching the stage of articulate speech after the discontinuance of the ether, he suddenly remembered the question, the rhyme, and even told accurately with whom he had discussed that item of memory. Questions of when and where he had learned it yielded nothing again.

Three days later the amnesia was again present for both the rhyme and any discussion of it.

At the sixth proposed ether session Dr. A declared his wish to intrude a new venture into the program. He explained that for several days he felt that he was repressing something vital to him, but what it could be he had not the slightest notion. He apologized for disrupting the ether program but declared some matter of personal interest of unknown origin or character was troubling him intensely, disturbing his sleep, interfering with his work, causing "jumbled, meaningless dreams" if he dozed, and that he was developing a depression. Therefore, he added, instead of ether he wished that the author would do a little mental and emotional exploration by means of hypnosis and that the ether experiment could be continued later.

He was asked why he should not try ether, and his reply was most informative. "I suspect ether is like alcohol. When you get drunk, there's a lot you don't remember the next day or ever until you again get drunk and reach a similar degree of alcoholic saturation." In support of this argument he reported on some intentional laboratory work and some unintentional experiences he and others had undergone.

After this explanation he again insisted urgently upon the use of hypnosis to discover "whatever is troubling me." Apparently he was strongly motivated and reached a deep stage of hypnosis in a few minutes. In this trance he was asked if he knew its purpose, and he replied irritably that he did and that the author should proceed without delay.

With great care many of the questions previously asked, including those that were direct but nonrevealing quotations, were asked. No particular memories were elicited, since only questions previously negative in results were asked. Finally he was asked the original revealing question of "What comes after Johnny?"

Immediately he sat up, still in a deep trance, and urgently asked in what seemed to be a state of alarm, "That's it, let me remember slowly."

His request was acceded to by silence. After about five minutes of obvious emotional experience on his part he said, "Wake me up now, and I will tell you. I remember everything."

Aroused, he recited the rhyme and related how he, at the age of three years, had been carefully coached by some older boys and encouraged to go home where his mother was entertaining female friends, among them the mothers of some of the boys, and proudly to declaim his newly learned recitation. This he had done to the profound horror of his mother and presumably the embarrassment of the guests. With mingled tears, sobs, and profound amusement he told of his mother's irate fury, the corporal punishment by his father, and of being sent to bed without his supper. He recalled crying in bed and wondering why he had been sent to bed in disgrace as was obvious from his mother's and father's behavior toward him. He now realized that he had developed a profound repression apparently almost immediately after the incident.

The recollection of this memory about the rhyme he later verified, including even the names of the boys he had listed as participating. However, some of them had forgotten the incident but some recalled their prank readily. His mother had forgotten it, but his father remembered it after some stimulation. (This information was received by mail much later, and Dr. A some 15 years later still remembered the rhyme but with much amusement at the reactions of his parents. He also stated that two of his sons had, without assistance from him, learned the rhyme from their fellow playmates.)

The results of this so-called "intrusion" into the procedure led to some extensive plans for research as soon as the ether pilot study under way had been completed.

Unfortunately, just before the next ether session, Dr. A received a most advantageous offer to do research elsewhere, and this author kept the records as transcribed by the secretary.

At the time Dr. A received the offer for a new research position this author developed an acute dental distress. Appropriate examination disclosed two adjacent apical abscesses, and the dental recommendation was that one tooth be extracted because the nerve was dead and the abscess at the tip of the tooth root be curetted. Warning was given that the second tooth might need extraction to permit curettage of the adjacent abscess, but the dentist hoped to do this via the cavity of the first abscess.

A medical colleague acted as the anaesthetist, and ether was the anaesthetic of choice, for the reason that the author wished to seize upon the opportunity to compare in some way his own experiences with those of Dr. A. Hence arrangements were made to have the same secretary present to record in full all activity of behavior and speech.

The operation was done in Massachusetts, and after the first can of ether had been slowly dribbled onto the mask, the dentist asked somewhat anxiously, as verified later by special inquiry and the secretary's record, "Good God, man, isn't he under yet?"

Both the anaesthetist and I replied respectively "Not yet," and, "I'm just beginning to feel it (meaning the ether)."

A second can was systematically emptied onto the mask, eliciting the question from the dentist, "Is he a chronic alcoholic to absorb all that ether?" The anaesthetist assured him that on rare occasions I took a cocktail (he knew nothing about my ether experiment with Dr. A which might have accounted for what was regarded as my unusual tolerance to ether, and naturally the secretary offered no explanation.) When the second can of ether was nearly empty, the anaesthetist requested that a third can be made ready. The dentist declared that two cans of ether was enough for any operation and that he was going to proceed.

The anaesthetist replied "He's ready, all right. Look at his eyes." He looked at the pupils of my eyes, and both agreed that I was deeply anaesthetized. I startled them by saying, so the secretary's notes read, in a slurred voice, "The hell you say," and made a mental note at the time that I could not see light, although apparently my eyes had been opened forcibly, as was indeed the case.

Both the dentist and the anaesthetist laughed at my comment; the anaesthetist proceeded to give some more ether but was interrupted by the dentist, who declared, "Anaesthetized or not, I'm going ahead. With all that ether, he can't feel a thing."

The dentist was right. I could not feel anything. Neither could I move or even open my eyes. But I could hear. I heard the forceps clamped to my tooth, but I could not determine any sense of position. I heard the dentist tell the anaesthetist to hold my head firmer, but I could not feel it being done. I could hear what I reasoned to be the sounds of the tooth being loosened from its socket. I heard the scraping sounds of the curettement. The dentist remarked that the second abscess had ruptured into the first and he could do a curettage without a second extraction. I could hear more bone scraping sounds. Also, I could hear someone breathing hard and spasmodically.

Finally the dentist declared that the task was completed, that there would be no packing done, and that I should be returned to the ward. I heard them comment on the heaviness of my inert body, but I did not sense being placed on the surgical cart. I did hear the wheels squeaking, an item I verified the next day but which my secretary had also recorded.

On the way to the ward he encountered someone who inquired about me. I knew that someone spoke but formed no memory of what was said.

The next thing I heard was the anesthetist telling the nurse to keep me under constant observation, to permit my secretary to remain so long as she wished, and that I would "sleep it off" during the night, that I was already "dead to the world." It seemed to me to be only a short time before I began trying to talk to my secretary, but she recorded the time as nearly an hour. I tried to give her an account of my memories, but my speech was thick and slurred. She patiently waited until my voice cleared sufficiently, so that by repetitiously asking me to repeat what I had tried to say and by repeatedly asking me if I remembered anything more, she eventually got a full account.

The next morning I awakened feeling rested and refreshed and impatient for the arrival of my secretary. Upon her arrival I gave her as full an account as I could remember. As I did this I realized that we had encountered someone in the corridor on the way to the ward, but I had no memory of whose voice I heard or what had been said.

Transcripts were made of each of the three accounts, the operative, the postoperative, and the account given the next morning. They were read by the anaesthetist, the dentist, and myself. In all three instances they agreed. Neither the anaesthetist nor the dentist had noted the squeaking of the surgical cart wheels, but they verified it by actual investigation. The dentist was embarrassed that I had heard his inquiry about my possibly being a chronic alcoholic. Both the anaesthetist and the dentist confirmed that the dentist's breathing had been labored and spasmodic—that such breathing characterized his operative behavior.

The physician who had encountered us in the corridor and had made inquiries at that time visited me and told me what he had said. It awakened no memories within me.

Apparently I had been so set in my interest in the actual experience that I did not include him in the frame of reference. I also learned that the night nurse had asked me about a mouth rinse and had spoken to me several times. She too was not included in my memories. I had overlooked making any provision for her. But for everything for which I had established a mental set on noticing at the levels of hearing, understanding, and remembering, I succeeded. The hearing of the squeaking of the surgical cart's wheels and remembering that, and remembering only that someone spoke whose voice I did not recognize and whose inquiries about me I did not remember both suggest that the squeaking wheels had a highly important personal significance for me, since it meant the undesired operation was concluded. The inquiries of the physician who met us in the corridor at that moment lacked any peculiar personal significance.

My reason for not publishing the above material sooner was simply that neither instance constituted an adequate study. They served merely to indicate that there is an important area for adequately controlled and comprehensive research. However the recent publications that have appeared in this Journal have impelled me to add this account to the literature.

It is also most unfortunate that the original experiment with Dr. A was not completed as a pilot study and a further and a better organized procedure developed. However, it does pose a most fascinating question of why ether could uncover apparently otherwise unreachable memories which the patient could subsequently discuss but fail to integrate into the body of his conscious memories, and how hypnosis could serve to elicit those same memories but in such fashion that they could be integrated.

To summarize very briefly and emphatically, chemo-anaesthesia and mental functioning are as important fields of scientific inquiry as are the fields of chemo-anaesthesia and surgery. Also of equally intriguing interest is the observation that pain as an experience itself and that the knowledge and memory of a painful procedure can be rendered by chemo-anaesthesia into two separate items, only the latter of which is experienced.

# **A Field Investigation by Hypnosis of Sound Loci Importance in Human Behavior**

Milton H. Erickson

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At the Colorado State Psychopathic Hospital in July, 1929, the author listened to an extensive and very detailed account of six days of seasickness suffered by a resident in psychiatry newly arrived from England. This account was the author's first direct knowledge of the subjective aspects of seasickness reported upon by someone trained in medicine and competent to answer questions informatively.

The information received led the author into prolonged private thinking about various aspects of seasickness, possible seemingly unrelated significances, and possible methods of experimental investigation.

The following September that resident questioned the author about hypnosis.<sup>1</sup> Not only did the resident express interest in learning about hypnosis but volunteered to be a hypnotic subject for the reason that the experience itself might enhance didactic learnings.

This offer to be a hypnotic subject presented the author with a most desirable opportunity for an experiment which he had been in the process of formulating for several weeks but without any expectation of an opportunity to put it to test. Accordingly the offer was accepted, and the resident was informed that an interesting experiment had been under contemplation for some time which might entail some possible, but only transient, discomfort, but which would be decidedly convincing and informative. The resident agreed readily to accede to any plans the author might have in mind.

Arrangements were made in the latter part of September to undertake privately the venture the author had in mind in a conference room shortly after the evening meal. That evening the resident was seated in an ordinary chair, while the author took a seat on a low footstool about six feet away, directly in front of the resident, with the author's head level at the subject's chest level. No one else was present in the conference room, and the author spoke in a normal but persuasive tone of voice.

The reasons for the use of a foot-stool at a distance of six feet were the recognitions that when one is seasick aboard ship there is a desire to keep one's distance from others, and that sounds on a ship come predominantly from below.

A trance was quite readily induced by using the hand-levitation technique, which resulted first in a rising of the right hand to the face with instruction that the moment of contact

would be marked by a deep breath, a closing of the eyes, a feeling of great comfort, and the development of a deep trance. After a brief period of contact with the face, the hand would slowly descend and come to rest upon the thigh. Thereupon the left hand would duplicate the performance of the right hand, rising slowly to the face, then lowering to the lap. Upon the left hand touching the face, the right hand would simultaneously levitate, reaching the face at just the same moment as the left came to rest upon the thigh. Then the right hand would slowly descend to the right thigh. Five minutes were allowed to pass with the subject enjoying the comfort and restfulness of a deep trance state, knowing that the next task would be the simultaneous levitation of both hands so slowly that almost two minutes would be required for hands-face contact and another two minutes for their descent to the thigh level. All suggestions were limited to, "Soon, very soon, your (right, left, both) hand(s) will begin to move upward from your thigh(s), perhaps sooner than you expect, lifting upward bit by bit, higher and higher, elbow(s) bending more and more, your eyes closing slowly, your hand(s) getting closer and closer to your face, soon touching it, now touching it, now the (right, left, both) hand(s) beginning to lower slowly, coming to rest on your thigh(s), gently, taking a deep breath and going into deep trance with your eyes remaining closed, becoming increasingly comfortable and enjoying the restfulness of a deep hypnotic trance and remaining in the trance until I tell you otherwise."

As the trance induction began, the subject's eyes slowly closed and were completely shut by the time the right hand was halfway to the face at the first levitation; they remained closed with no further suggestions given about the eyes. The room was quiet, there were no interruptions. The suggestions were all given in a leisurely fashion with no special emphasis, there being only a calm, gently persuasive tone of voice. The subject gave every visual evidence of being a readily responsive subject and of achieving a deep trance state rather rapidly, and that responsiveness made unnecessary a rigid abidance to the stated time intervals. The time of the trance induction was approximately one hour after the evening meal, when both the resident and the author were off duty. All went very well until the simultaneous levitation of both hands was initiated. At this time a new factor was introduced. There was no change in the suggestions or tone of voice, but the author changed his behavior by silently bending his body back and forth, from side to side, and up and down in a jerking fashion so that the locus of his voice changed constantly from one level to another and from one point to another in an arrhythmic fashion. By the time the subject's hands reached a point halfway to the face, a strained and uncomfortable facial expression appeared, and before the hands had actually reached the face, the subject awakened, greatly nauseated, and vomited on the floor. While still retching, the subject explained, "I must have eaten something that disagreed with me. I feel just as sick as I was when I was aboard ship. I'm miserable. I can almost see the waves. I better bathe and go to bed. Maybe we can do this hypnosis bit some other time."

Most reluctantly consent was given for the author "to clean up the mess on the floor," and the resident retired to the hospital living quarters "to bathe and go to bed and get rid of this nausea." The next morning the resident inquired of others if they had experienced gastric distress. Since none, including the author, had, the resident concluded that it was something peculiar to himself.

The following Sunday afternoon, four days later, a “casual conversation” ensued during which there seemed to be no recollection of the previous experience of nausea even though some bananas were consumed. The conversation led gradually to desired comments by the resident. These were, “I had a fine walk this morning, played two sets of tennis, and feel topping. What say we have another go at the hypnosis bit?”

The offer was immediately accepted and a “proper room assuring privacy” was selected. The fact that it also offered a convenient sink did not seem to make any impression upon the resident or to arouse any memories.

Precisely the same procedure as before was employed, with the exception of certain additional suggestions phrased to meet the situation if results comparable to those from the first efforts to induce hypnosis appeared. These were, “At any time this afternoon after your right hand begins to rise toward your face, you will go into a deep, entirely comfortable trance immediately, and any time after that, should I rap on this desk beside which I am sitting, you will go into a deep, sound, comfortable trance. I will now illustrate the rapping (demonstrating) while your hand continues lifting toward your face. If you understand, nod your head in affirmation. If you do not understand, shake your head negatively and I will repeat the instructions.” An affirmative nod was made with no alteration in the continued levitation of the hand, which had already risen a full two inches at the beginning of the instructions.

In this manner a posthypnotic suggestion was inserted into the procedure without altering the process itself. Its meaningfulness would be dependent only upon the development of a need for its use. Such a possibility had occurred previously when the resident aroused from the trance upon the development of physical distress. Should there be a repetition of the arousal it could thus be corrected at once.

The author continued, “You will continue in a deep trance a sufficient period of time to meet your didactic and experiential needs, whereupon I shall awaken you with the understanding that any hypnosis thereafter will be in accord only with your own wishes and in accord with matters not necessarily related to today’s work. When you awaken, you will have a total amnesia for all that has happened since the very first efforts to induce a trance were made. However you will be given a full account of everything and in a manner that will meet your wishes fully. When you feel certain that you understand these suggestions, your right hand will begin to descend to your thigh after it reaches your face. If you do not understand the instructions fully, your right hand will remain in contact with your face, and the instructions will be repeated.”

However, the subject’s hand continued to levitate. When the resident had reached the point of levitating both hands, the author began his erratic body movements. By the time the subject’s hands were less than halfway to the face, there occurred the same results that had occurred the previous Tuesday evening.

Upon awakening, the resident dashed to the sink and vomited; while still retching, he gasped, "What's happening?"

The author immediately rapped sharply three times on the desk, and a trance state became visibly present, with an immediate disappearance of signs of physical stress.

To explain the situation that then existed, it must be recognized that the posthypnotic cue of rapping on the desk had resulted in the development of a third trance state. Since it was a new trance, there was no physical distress or nausea. The nausea and vomiting belonged only to the first two trances. Use was made of this third trance by giving the resident a mouthwash followed by a drink of cold water to remove any sense of physical discomfort or remaining taste of the mouthwash. The instructions were simply, "Use this mouthwash, please. Now drink this glass of ice water, please." No attention was given to the sink, and in accepting the glass of water, the resident had turned his back toward the sink, and was allowed to continue standing there. The author then took a seat at the desk, ignoring the footstool, which no longer served any purpose. Thus, with the resident standing with his back to the sink, not sitting in a chair with a peripheral view of the sink, and the author seated at the desk with the resident looking at him with only a peripheral view of the footstool, a new immediate reality situation was effected, different from those of either of the first two trances.

At this point it must be noted that the first two trance states were terminated by the development of a state of nausea apparently caused by the arrhythmic alteration of the loci of the author's verbalizations. The movements required to alter the loci were not visible to the resident because of eye closure during the trance state. At the arousal of the resident from the second trance state the author discontinued those movements, thus giving the resident no clue for an understanding. The utterance of the bewildered inquiry of "What's happening?" at the termination of the second trance indicated a posthypnotic amnesia for the circumstances of the first two trances and, as it transpired, for nontrance events back to the time just preceding the first trance.

The investigation was continued by the author instructing the resident, "When you arouse from the trance, you may ask any question that might come to your mind. Be curious about anything you wish, and be willing to accept any bewilderment that may occur. I assure you that I will answer all questions and explain everything fully. Is that satisfactory to you? If it is, just nod your head affirmatively." The resident's head nodded slowly." All right, awaken now!"

The resident slowly aroused, taking about a minute, looked around bewilderedly and asked, "What . . . why . . . how did I get here?"

"Yes, you are here in the laboratory and this is the way it happened. We were reading today's Sunday comic papers and there they are on the desk, and that led to a mention of that new catatonic schizophrenic patient you were assigned last Friday, and that led us to the laboratory here."

"I can see that this is the laboratory and I can see last Sunday's comic papers there, but the last patient I was assigned was that very depressed woman, and she came in today."  
[That patient had arrived the preceding Tuesday.]

"Now listen carefully and behave in exact accord with what I say, doing no more than I specifically ask. Agreed?"

"If you wish, but I don't understand what. . . ."

"Just do what I ask and you will understand most agreeably, so hop to it quickly. Don't make any comments. Take a look at what's in the sink, keep your mouth shut, don't speak, read the date on that newspaper, keep silent, pick up the telephone there and ask the operator what day it is, quickly now."

With a most puzzled look the resident did as told, then sat down weakly in a chair and said, "She said it's Sunday. Are you and Jack up to your usual?? [Jack was a colleague with whom the author often enjoyed collaborating in practical jokes.]"

The author stated, "I have certain legitimate purposes in which I am interested and which, I assure you, will be fully approved by you. You can judge them as I present them, and if they are nonoffensive and not objectional, you will do them. Okay?"

"I do not understand, but if you say so, I will do as you ask."

"Now write on that sheet of paper three separate sentences giving the day of the week, the kind of patient that was most recently assigned to you, and your knowledge of why you are in this room. Then sign your name to those statements and leave the paper on the desk in a readable position with a paperweight holding it in place."

The resident, very puzzled, obeyed, writing:

1. Today is Wednesday.
2. The last patient assigned to me was a female, manic-depressive, in a depressed state.
3. I do not know why I am here in this laboratory.

The resident was asked to read aloud what had been written and to state if it were correctly stated. The statements were affirmed and the signature was acknowledged verbally.

"Now, Doctor, both you and I know that you wrote those statements and that you have read them aloud with full conscious conviction that they are true. Right?"

"Quite so!"

“We both know about unconscious slips of tongue and pen-slips that reveal what the unconscious mind knows. So now you may rewrite those statements, doing so quickly, writing them with unconscious knowledge.”

“I do not understand.”

“Your unconscious mind does, so hop to it.”

The first sentence was written, “Today is Sunday.”

The resident noticed this, looked amazed and puzzled, but rapidly wrote the next two sentences without seeming to be aware of what was occurring. They read: “The last patient was assigned to me on Friday and was a male catatonic schizophrenic. We came to this room for hypnosis.” As the signature was appended, the resident exclaimed, “Sunday? Tuesday?” Then, after reading both sets of statements and reading the date on the Sunday newspaper, the resident remarked, “And this is next Sunday’s newspaper, but not today’s date? I am thoroughly confused. What has hypnosis got to do with being seasick in Colorado?”

The resident was systematically reminded of (a) the seasickness discussed in July, (b) the discussion of hypnosis having begun early in September, (c) the volunteering to be a subject the previous week, (d) the depressed female patient assigned on the previous Tuesday, (e) the events of that Tuesday evening, (f) the male schizophrenic patient assigned on Friday, and (g) “Now it is Sunday afternoon, you had a fine walk and played tennis this morning, then earlier this afternoon we chatted, ate some bananas, and then we came here to the laboratory to try hypnosis a second time.”

“A second time? I don’t know what you mean! But that wasn’t here! It was tonight . . . I mean, I got sick on the floor of the conference room but that sink there . . . please let me compose myself. I’m all mixed up.”

The resident was told, “Take all the time you want and recover every memory you need for a complete understanding of this situation.”

Shortly the statement was made, “Well, I think I have everything sorted and put together quite rightly except for some seasickness. Just what happened to make me experience being on deck on a ship crossing the Atlantic and being seasick here in Colorado? Twice, too! I really must apologize for that mess you so kindly cleaned up for me. It’s embarrassing. I better look to that sink right now. I know you have some kind of explanation for me, so while I do the bit with the sink, please hop to that.”

There followed then a detailed discussion of the thinking the author had done following the account of the six-day period of seasickness. The items considered to be of importance and upon which this investigation was based were:

1. One of the basic considerations in the learning of sounds is the identification of the loci of their origin, which includes loci as above, below, in front, in back, to the right, and to the left, as well as every other possible plane which may incorporate combinations of these directional factors.
2. The immediate reality environment on board ship differs in many ways from the immediate reality on land. It requires many and often unrecognized alterations of response to all sensory stimuli.
3. However smooth the ocean may be there is a constant irregular rocking of the ship, necessitating the experiencing of a constant relative shifting of the loci of sound as well as alterations, many unrecognized, of responses to sensory stimuli.
4. Seasickness not only causes physical and emotional distress but in addition alters in some degree established patterns of behavior and causes a sense of loneliness and even an aversion for any contact with others.

The final conclusion reached was that in these two instances in inducing a trance in the resident the slight irregular alteration of the loci of sound appeared to have the effect of a conditioned or conditioning stimulus sufficiently strong to revive the previously experienced seasickness.

Further hypnotic work was done later with the resident, primarily in relation to self-experience and instruction, but only after the author had promised no further investigative work related in any way to the ocean trip. Finally, permission was given for trance induction by simultaneous verbal suggestions and the body movements previously employed from the beginning of the induction, but with the resident's eyes open. This procedure handicapped trance induction, the rationalization being offered by the resident that the body movements resulted in either a sense of amusement or an intellectual challenge to predict the next movements. Thus, whether because of amusement, intellectual interest, or whatever else may have been the actual mental set, the resident's response to the verbal suggestions was diverted or prevented.

This led finally to the resident consenting to trance inductions by the same technique employed in the investigation study. It was also agreed that the tests be made while the resident, eyes closed, facing away from the author, was sitting in a chair and the author was sitting on a footstool, the trance inductions being made in a series. In some of the inductions hand-levitation suggestions only would be used; in some there would be a combination of levitation suggestions and body movements, with the resident kept unaware of the specific methodology employed until the series ended.

The inductions totaled nine, done over a period of nearly a month, no more than one trance induction in one day and at intervals of at least two days. On the fourth and seventh trance inductions the resident interrupted the procedure because of "liverish feelings." A similar interruption occurred during the ninth induction, when the resident again developed "liverish feelings" which were emphatically asserted as caused by a combination of body movements and verbal suggestions. The previous "liverish feelings" of the fourth and seventh inductions were also declared to have been unquestionably caused in the same way. This was a correct statement. The other inductions led only to

uncomplicated trances. The resident refused to permit any further trance inductions in which body movements were used.

When this same procedure was attempted with other naive subjects whose only motivation was a desire to cooperate in hypnotic experimentation, the curiosity aroused by the request that they keep their eyes closed and face away from the author constituted an obstacle to hypnotic response, despite the fact that subsequently they were found able to develop trance states. Even after this they objected to turning their backs to the author for trance induction, since their original curiosity would immediately come to the foreground.

## **SECOND ACCOUNT**

The opportunity for another similar study occurred in 1942. However, it was a very brief, one-time effort permitting the achievement of similar results but no opportunity for adequate discussion.

The occasion was a chance meeting at a social gathering. The man was a university professor with a special interest in any unusual forms of human behavior. The author learned that Dr. X, whose professional interests were related to psychology and human behavior in general, had traveled on board ship many times but invariably had suffered from seasickness no matter how smooth the ocean was. Later in the conversation with him, while discussing various forms of behavioral manifestations in psychoses, the topic of hypnosis arose, since Dr. X knew the author by reputation. He inquired about some of the author's publications which he had read and then asked if it might be possible then and there to induce in him some hypnotic phenomena that could be explained only in terms of the effects of hypnosis and not be subject to interpretation in some other way. After considerable thoughtful study this challenging request was accepted.

During the early part of the conversation with Dr. X seasickness had been a minor topic. This had reminded the author of the experience with the psychiatric resident, but fortunately no mention had been made to that matter. The conversation had first centered on Dr. X's professional field, then turned to the author's professional experience, and finally to the topic of hypnosis. The author assured Dr. X that his wishes could be met, and retirement was made to another room to insure privacy and no intrusion by the other guests present.

In this adjoining room the author positioned Dr. X and himself in the same manner as had been done with the resident in psychiatry. Then it was explained that, to achieve specific results explainable only as attributable to hypnosis, two items of conscious cooperation would be required—namely, closing and keeping shut his eyes, and listening continuously, intensely, and attentively to everything the author said even if irrelevant, redundant, or apparently serving no recognizable purpose. Dr. X was informed that this would insure participation by his "unconscious mind" and cautioned that such intent listening might occasion some fatigue and even some transient discomfort, but that he need not be concerned or distressed by any such developments.

Then the author, seated on a low hassock, speaking in a monotonous tone of voice, and bobbing up and down, back and forth, and from side to side, thereby constantly changing the locus of his voice in an irregular fashion, proceeded to give a general discussion of hypnosis. No suggestions were given. All utterances were descriptive of general hypnotic phenomena, with the statement included that the unconscious mind could and would understand meanings not perceptible to the conscious mind and that the unconscious mind could act and would act upon instruction in accord with its own understandings entirely independently of the conscious mind. This statement was reiterated several times, being interwoven with the general remarks about hypnosis.

After about seven minutes of such discussion Dr. X's face showed the typical placid, immobile faces of the hypnotic trance, but within another two minutes the placid hypnotic faces disappeared, and a look of conscious distress appeared, Dr. X opened his eyes, began gagging, hurriedly secured his handkerchief, and placed it to his mouth, rushing to the lavatory as he did so.

Upon his return from the lavatory he remarked, "I just don't know what happened to me. I was listening attentively to what you were saying when a sudden wave of nausea hit me. If I were on board ship, I'd know what was going on, but here I can't understand. The feeling disappeared as rapidly as it appeared. I have no nausea or discomfort now. It was gone by the time I got into the lavatory. It just disappeared as rapidly as it had appeared."

"Perhaps you developed a trance state in which a state of nausea was engendered which, in turn, aroused you from the hypnotic trance. If such is indeed the case, you will unconsciously place your left hand behind your head with the fingertips touching your right ear."

Without noting what he was doing with his left hand, Dr. X explained very earnestly that he had not developed a hypnotic trance, but had only listened to the author's exposition of hypnosis.

"Then why is your left hand behind your head with your fingers touching your right ear?"

Upon noting this, Dr. X dropped his left hand to his lap and replied simply and with a tone of wonderment, "I must have done that unconsciously."

As Dr. X spoke, the author moved from the hassock to a standing position still in front of Dr. X but very definitely to his right.

"Yes, I think you did it unconsciously to signify that you did develop a hypnotic trance," speaking in a manner to keep Dr. X's attention fully upon the author.

"I assure you that I merely listened attentively, but I did not go into a trance." "Then why is your left hand again behind your head with your fingertips on your right ear again?"

Dr. X turned his face away from the author, glanced first at his left thigh, then at his uplifted elbow, and then slowly lowered his left hand to his left thigh, seeming not to understand the situation.

"Yes, Dr. X, [as he again turned his face toward the author] your left hand by its position indicated and indicates [slowly Dr. X's left hand began to rise toward the back of his head] that a state of hypnosis was induced in you."

"But wouldn't I know it? I certainly don't know it, and you are just assuming that I was hypnotized."

"No, that is not the case. It is simply that you do not know consciously something that you do know unconsciously. Now listen carefully. Do not make any movement until I tell you what to do. Now move slightly the fingers of your left hand and tell me what you feel with them."

The expression of amazement that appeared on his face as he became consciously aware that his left hand was again behind his head and that his fingers were touching his right ear, indicated that he knew that his unconscious mind did know something that he did not know consciously.

Thereupon the author gave Dr. X an explanation comparable to that which had been given to the English psychiatrist. As this explanation was given, the author had carefully chosen a chair to the right of Dr. X. The explanation was given in a casual, conversational tone of voice. Repeatedly, as the author spoke, Dr. X's left hand would levitate to the back of his head. Each time, as his fingertips touched his right ear, he would self-consciously lower his left hand to his lap, only to position it in the same way again. The author continued his explanatory remarks. His final comment was, "It is evident that in some way you induced a trance by some kind of technique by which you did something or said something to me that I don't know about that makes me keep on doing this [again self-consciously lowering his left hand to his lap] without knowing that I am doing it. Will I keep on doing it? Good heavens! I've done it again!" He was assured that as soon as he was fully convinced of the character of his behavior, it would cease.

At this point of time other matters compelled his departure, and as he put on his hat, his left hand again levitated rapidly to the back of his head, and when his fingertips touched his right ear, he ejaculated, "I'll be damned! I am being stubborn about being convinced."

### **THIRD ACCOUNT**

In mid-March, 1968, the author was visited in Phoenix, Arizona, by Dr. Thomas P. Hackett, now teaching psychiatry and hypnosis at Harvard Medical School. The occasion for this visit was Dr. Hackett's interest in the author's hypnotic technique in the treatment of the chronic pain suffered by a patient Dr. Hackett had referred to the author.

However, the author had another chronic pain patient whom he intended to use in initiating a discussion with Dr. Hackett on the use of hypnosis for pain control, especially intractable pain. This patient, Frank, then in his late sixties, had six years previously undergone a right-sided hemipelvectomy. This radical surgery had resulted from a sarcoma of the thigh which had originally been misdiagnosed. When he developed phantom-limb pain, his surgeon, Frank declared, had advised him that he was "old enough and rich enough to live on dope the rest of your life." The phantom-limb pain had been extensively described as an experiencing of a feeling of his toes being severely twisted, his foot being bent double, and his leg being pulled far back behind him and being severely twisted. These feelings occurred irregularly in convulsive episodes and might last from two to three minutes and number from three to 10 times in 24 hours. They often awakened him from sleep. Invariably they were marked by flooding perspiration, particularly of the face, sometimes a fall to the floor even when seated in a chair. Constantly present was a severe aching pain which often became additionally a throbbing pain, sometimes lasting many hours. During the episodic attacks or the periods of severe throbbing pain, there were frequent involuntary outcries which the patient learned finally to subdue usually to a low-pitched moaning. His story was confirmed in all details in separate interviews with his wife.

Treatment of this patient had been limited to pain control and the correction of his drug addiction which had developed within three weeks postsurgically. Various drugs had been prescribed by his surgeon, but it was soon decided that Demerol administered intramuscularly by his wife in amounts ranging from 50 mg. to 100 mg. no oftener than every two hours would probably be the best method of medication.

Frank always carried extra prescriptions with him. His addiction was not a typical addiction. Rather it was a drug dependency. He might take 100 mg. 12 to 16 times in 24 hours for several days in succession, and this period might be followed by several days during which he might take no more than four 50 mg. injections during the night, having been awakened by convulsive episodes. There was no set pattern in his drug dependency. He had an intense fear of "looking or acting like a dope addict-I've seen them all around the world. I am a man, not a freak, I don't want to be torn to pieces by pain and drugs, but I can't last much longer, so do something, anything your conscience allows."

He had tried every possible psychological measure for his pain "from witch doctors, occultism, Zen-Buddhism, stage hypnosis, exotic mysticism, to hypnosis by a competent physician." He was finally instructed by a staff physician at Stanford University Medical Hospital to seek aid "from an experienced internist."

He consulted Dr. T. E. A. von Dedenroth of Tucson, where he was spending the winter. Dr. von Dedenroth, after much effort to induce a trance, referred Frank optimistically to the author.

At the first interview Frank repeatedly apologized for being "a lousy, impossible subject, but I can't help being bossy, stubborn, constantly watchful, and disputatious."

No open or direct hypnosis could be used, since the patient declared himself to be "too disputatious to let anybody take charge of my mind. Any help you give me for my pain and my drug addition you'll have to sneak in when I ain't looking. I've been top-dog so long I can't stop even when it's for my own good. You can knock me out with drugs, anaesthetics, or a baseball bat, but that's no good, I want to enjoy life, but this pain and the drug are interfering. I've read everything I could lay my hands on about phantom-limb pain, and drugs are not the answer. They dull the pain and dull your mind, and that ain't living. After Stanford University Medical Hospital recommended hypnosis, I read up on scientific hypnosis and found that it can permit major operations even though it is a use of psychology. But Dr. von Dedenroth found out that I'm a nut, too hardheaded and too disputatious by nature to be hypnotized. Anyway, he did his best, and I tried my best, too. But he described you as having a hypnotic technique so sneaky that you could keep dry in a heavy rain, and the way he said that, I believed him. So you've got my permission to do anything you can get by with. So you've got a miserable nut on your hands and the light is green, so it's all yours."

While the patient was explaining the situation as he saw it, the conclusion was rapidly reached that the only possible hypnotic approach to him would have to be an interspersal technique (Erickson, 1966) by way of a "casual" conversation.

He was found to be a most charming conversationalist and seemed to know how to make a conversationalist out of anybody he met. He was most sociable and gregarious and, like Will Rogers, had apparently never met anybody he didn't like, including scoundrels. He gave practically no personal information, aside from that of his hemipelvectomy, pain and drug dependency, except that which he disclosed incidentally. Very little of a personal character about him was learned, and this was primarily general in nature. He was a high school drop-out, self-educated by extensive reading covering the fields of art, literature, philosophy, drama, biography, history, science, industry, and business. He owned seven business corporations, two of which were identified as salmon canning and as the importation of many diverse items ranging from rare art objects to the basic needs of industry in general. He had progressed from extreme poverty in his youth to his present status as a multimillionaire. He had endowed orphanages, hospitals, libraries, and museums, had traveled extensively throughout the northern hemisphere, and knew about hunting and fishing in many countries, but he never related any personal experiences. He enjoyed gambling and made repeated trips to Las Vegas, Nevada, but always set the total of his gains or losses at the total of either \$3,000 or \$5,000 for each trip. Whether winning or losing, when the predetermined figure was reached, he abruptly terminated his visit. He was always intensely interested in the personal lives of others, which made possible the author's hypnotic approach. Another item of absolute importance for this report was his neurotic, fetishistic honesty in relation to anything he said or did, the reason for which the author carefully did not seek to learn, thereby winning the patient's trust, since that patient's frequent references to this attitude seemed to be a testing of the author's willingness to restrict himself to the stated problem of pain and drug use.

Two three-hour sessions were held with the patient before any attempt to use an interspersal technique of hypnotic induction. By the close of the third three-hour session

the patient could drift in and out of a trance state without necessarily closing his eyes. It must be added that he developed a full capacity for an amnesia for all matters related to hypnotic procedures and always obeyed any instructions given him readily and unquestioningly, and retained benefits achieved until some uncontrollable condition developed such as illness. He would not accept instruction to foresee such possibilities. While he retained a full conscious memory of the nonhypnotic content of therapeutic sessions, he either chose or was actually unable to be aware of long, unaccountable lapses of time occasioned by prolonged trance states to permit adequate instructions in pain control.

This aspect of his personal behavior was used to devise an investigational approach which might possibly yield results comparable to those reported in the two preceding accounts, while at the same time serving the purpose of demonstrating a technique of indirect hypnotic induction suitable for resistant patients with chronic pain or other problems. The results were quite serendipitous in that, while serving the primary purpose of an indirect trance-induction technique, an unexpected repressed memory was uncovered. Nevertheless, a confirmation of the two preceding accounts resulted in a completely unexpected fashion.

Several times on later occasions the patient observed with what seemed to the author a most probing tone of voice, "I don't know what you are doing, but my problems are decreasing." An evasive reply was made each time, "Maybe I won't have to do anything." After the first three sessions there was no further discussion of the use of hypnosis for his benefit, but this did not preclude discussion of hypnosis as a phenomenon or in relation to other patients. This, as well as discussion of an almost endless variety of other topics, gave the author ample opportunity to use an interspersal technique for reinforcements or reinstements of pain control.

Within two months the patient declared he needed no further help. Since he was indeed "a most disputatious character," it was not considered advisable to explain to him the possibility that some adverse event might cause him to lose his new-found ability to control his pain. However, he did agree to return if "anything else" should happen.

Nine months later he returned following a severe attack of Hong Kong influenza and the near death of his adored wife from the same illness, his pain and drug dependency having recurred, as was expected should a stress situation develop. He stated, "I do not know how in hell you talk me out of pain and Demerol, but you sure do, and that damn flu has put me right back to where I was when I first came, maybe worse."

No real effort was made to help him in the first three two-hour sessions. This discouraged him, and he ceased to be wary and over watchful. He unhappily said that he would "try another couple of sessions, and when they peter out, I'll take your advice about some other drug than this damn Demerol."

At the close of the next session he aroused from a deep trance without awareness of the fact that he had been in a trance, since the author was continuing the casual conversation

at the beginning of the session. Suddenly he became startled, looked at his watch, recognized that three hours had passed, then exclaimed, "You son-of-a-bitch, you sneaked past me again when I wasn't looking," and then recited from Kipling's "The Ballad of East and West," beginning with "Oh, East is East, and West is West" finishing with "though they come from the ends of the earth," adding, "Okay, Milton, I'll see you as many times more as you need to tie things down snug and tight." Reply was made, "Right, you do your business your way, and I will do mine my way."

There was a second recurrence over a year later following surgery for an enlarged prostate gland and a resulting secondary infection which required three months hospitalization in his home state. During this period of time he repeatedly received transient help from the author by way of long-distance telephone calls, but this was not fully satisfactory, never lasted more than a week, and could be negatively affected by necessary medical procedures. When he was released from the hospital, he promptly came to Phoenix for a satisfactory reestablishment of his pain relief and freedom from drug dependency.

However, it should be noted that he never did lose his phantom-limb pain completely. Rather, there would be transient minor recurrences, at which time he "would simmer down, get my head straightened around, and get it under control again." These recurrences he stated, "were nothing like the real thing, but bad enough to worry me. I just have to take a little time out, knowing that I can do without them." Any illness or excessive fatigue could bring on such minor recurrences, but they never constituted a real threat to his peace of mind. (This type of experience is typical in the author's experience with other phantom-limb pain patients, and provision is always so made, since perfection is not a human attribute).

There were two other items of interest of great value in the handling of Frank's problems. The first was, "I swore an inviolate oath when I was 16 to be absolutely honest in all my dealings, and thank God I've kept that oath!" No effort was made to ascertain the reason for this oath, but the age of 16 indicated a possibility of some juvenile indiscretion, and his frequent direct or indirect references to truth and honesty, often in poetic quotations, kept the author alert for possible significances. None was learned.

The second item was Frank's hesitation about accepting an invitation to attend the author's class at Phoenix College, where instruction on hypnosis was being offered to physicians, dentists, and psychologists. He had replied, "Oh, I know you won't say anything to embarrass me. So well, why not go? I might as well. Maybe I might learn something about the way you are handling me!"

No effort had been made to reassure him about the visit to Phoenix College. Additionally the author had observed on many occasions what he considered to be a fetishistic, neurotic striving on Frank's part to be utterly correct in everything he discussed. However, no effort had been made to extract possibly withheld information. In every possible way the author made clear without explicitly saying so that the problems of pain and drug dependence were all that were considered to be in the purview of the author.

In presenting him to the students at Phoenix College no mention was made of his drug dependency-to Frank's obvious relief, since his facial expression of alert wariness disappeared when it became apparent that no such mention would be made. As a result of such restraint and in many other ways Frank had developed an absolute trust in the author. He also developed an open-eyed trance state during the author's lecture at the college, which was most convincing for the students. Some of them made their own tests to be sure of their observations. Frank also, on his own initiative, made a second visit to the class and again developed a trance state which was circumspectly tested by the students.

To meet Dr. Hackett's needs both men were asked separately to meet the author in his office at 9:00 A.M. When they arrived, no explanations were made. They were simply introduced to each other and asked to sit down, which they did promptly but with bewildered expressions on their faces.

Addressing the patient, the author said, "Frank, I want you to close your eyes and to keep them closed until I tell you otherwise. Is that all right?"

He answered, "If you say so, all right. You never do anything without having a damn good reason. It ought to be interesting to find out what you're up to. So here goes," and with that remark Frank closed his eyes. The author was fully aware that Frank would develop a trance state immediately, since he had been so conditioned in the course of his therapy.

Turning to Dr. Hackett the author said slowly, very slowly, in an even tone of voice, repeating the same jerking movements of back and forth, up and down and from side to side described in the two previous accounts, "And Dr. Hackett will observe and listen carefully and silently while I instruct you. He will not understand, but your unconscious mind will understand as I speak. You will recall, Frank, a not too terrible thing, but it will be some specific instance long forgotten by you in which you were dishonest or violated the law in some way, an occasion of which you were ashamed at the time and which is now coming back into your mind, and you will recall it fully. It was an occasion for which there was no real reason and for which you were so ashamed that you forgot it. Now slowly open your eyes and tell us the whole story."

Frank, with a most astonished expression on his face, opened his eyes, saying, "Well, I'll be damned. How in hell you ever dredged that up I'll never know. And I don't want to know! I forgot it once and I'm going to forget it again. I haven't thought about it for at least 15 years, and I still don't want to remember it. I forgot about it as fast as I could, but now that you have pulled it up, I might as well tell you about that damn peccadillo. Then I am going to forget it again."

"I was sitting in a boat facing the Golden Gate Bridge. The bass were biting like hell. As fast as you dropped your hook into the water, you had a bass snagged. Big ones, too! When I had the limit of 15, I was taking my rod apart to put it in its case, when my

friends said, ‘Don’t do that, Frank. You will never again see a run of bass like this. Keep on hooking them until the run stops. We’ll pay the fines if we get caught.’” Well, it wasn’t the offer to pay the fines that made me yield like a weak son-of-a-bitch. I just plain wanted to catch bass that were willing and eager to be caught. I just put my rod back together and pulled in another 24 bass before the run ended. Best fishing I ever did, damn it. But I can’t say I’m proud of it. I just felt as guilty as hell.

“We weren’t caught, but I made damn sure that every fish was properly cleaned and dressed and I personally saw to it that they were delivered to an orphanage. I hope the kids enjoyed those damn fish. I didn’t.”

Frank was dismissed without any explanation being given to him. His parting comment was, “It beats the hell out of me how you dug that personal history out of me, and I sure don’t know why. You’ve only been interested in my pain and the Demerol before, but I suppose you’ve got your reasons. You always do. And if you want anything more, you’ll dig it out in your own style when I ain’t looking, so what the hell? Maybe you’ve got some idea about publishing it. Well I’m going back to the hotel and get busy forgetting about those damn bass. Makes me sick just to think about them. That’s why I never went fishing again.”

Nearly a year later, during a social visit, out of context, Frank remarked, “Telling you about those 39 bass took away some of my guilt. When I got back to the hotel, I started looking through that book of your collected papers to get some clue as to how you dug up that peccadillo, but I just got as confused as that Boston doctor looked when I left your office that morning and I don’t feel that I have to forget again. I still can’t figure out how you dredged it up because I had forgotten it.” He did not seem to be really asking for an explanation. No further reference was ever made to that account or to Dr. Hackett, which was most contradictory to the insatiable hunger for information he had always shown in all other situations.

After Frank’s departure a brief discussion was offered to Dr. Hackett of the two preceding accounts together with a brief discussion of the processes of learning how to define the focal point of origin of sounds and the usual disregard of such learnings in studies of human behavior. The pertinence of the above account to Dr. Hackett’s needs lay only in demonstrating to him convincingly that adequate use of hypnosis is not dependent upon patter, verbiage, what the operator knows, understands, expects, hopes for, wants to do, or the offering of instruction in accord with the operator’s understandings, hopes and desires. On the contrary the proper use of hypnosis lies in the development of a situation favorable to responses reflecting the subject’s own learnings, understandings, capabilities, and experiences. This can then give the operator the opportunity to determine the proper approach for responsive behavior by the subject. These considerations have been increasingly recognized by the author during the past 20 years as basic requisites in the development of hypnotic techniques and of psychotherapy. Subject behavior should reflect only the subject himself and not the teachings, hopes, beliefs, or expectations of the operator.

## **DISCUSSION**

In any evaluation of these investigations, emphasis must be placed upon the special motivation of each of the three subjects. The first subject was a young English psychiatrist very much interested in learning what psychiatry was like as practiced in the United States. The second subject had a lifelong interest in the many aspects and kinds of human behavior. Both he and the resident had an intense intellectual interest in learning. The author merely offered them a special opportunity to learn something of particular interest to them.

The situation with the third subject was entirely different. He had undergone an emergency hemipelvectomy because of a malignant tumor on his right thigh followed by four years of phantom limb pain and narcotic dependency. His therapy related only to those two problems, and he had twice mistakenly assumed that no unforeseen or totally unexpected occurrences might occasion a return of his symptoms. Hence his motivation was based on emotional as well as physical distress. The freedom from pain after four years of physical anguish and relief of his fear of a continuance of drug dependency resulted in an emotional basis that dominated all relationships with the author.

Also to be recognized is that both times after a trance had been induced and the author had introduced a minor arrhythmic alteration of the locus of his voice, the first two subjects had awakened spontaneously with manifested physical distress. Presumably the distress resulted from the randomly altered loci of the author's verbalizations, and it must also be noted that spontaneous amnesias became apparent for the immediately preceding events. However, the amnesia for the first trance of the resident was sufficient to include events of the four days preceding the second trance, even though the memory of the physical distress that had terminated that trance had been retained and proper conscious functioning had remained unimpaired. The amnesia for the resident's second trance became immediately apparent upon arousal from the trance state by the physical distress that had been developed during it, but this amnesia was terminated by the posthypnotic cue which caused the development of a third trance. The amnesia of this third trance state was systematically demonstrated and corrected, at least to a major degree, since no effort was made to discover completely what other items might have been included in that amnesia.

In the first two accounts the random alteration in the loci or origin of the author's voice revivified previous states of physical distress. No thought was given at the time of investigation to the accompanying unpleasant unhappy emotions. In the third account there resulted the recovery of a repressed memory marked by very unhappy emotions, although the associated physical activities were otherwise pleasant. Thus the elements common to all three accounts were the movements transmitted from the ocean, unpleasant emotions, hypnosis, and the irregularly randomly altered loci of the origin of the author's voice.

The first account resulted from the author's association of ideas while reflecting upon the description given him of dizziness during a period of seasickness. The memory of childhood activities with his playmates had come to mind. These activities, so common

among schoolchildren, were: (a) squatting down, hugging the knees tightly, and then suddenly springing upright with the fervent hope, if not of actually fainting, of experiencing various changes in subjective feelings, which sometimes included dizziness and (b) of whirling around rapidly in order to enjoy all of the intriguing subjective sensations of dizziness and general physical discomfort, which tended to vary in accord with the position in which the head was held. A refinement of this latter activity was accomplished by the author's affixing a crossbar to one end of a rope, tying the other end to the hayfork track in the barn, twisting the rope to the greatest possible extent and then "riding it down" to insure the greatest number of subjective experiences. One of the most intriguing discoveries was that sometimes the direction from which a voice was heard seemed to be wrong even though the voice was recognized. When the expedient of a whistle was employed by the participants instead of the recognizable voices, there were more frequent difficulties in recognizing the direction from which the whistling came.

To these memories were added recollections of the author's "listening in all directions" when engaged in mischievous pranks or the evasion of responsibilities. It may be that the "dizziness" experiments led to his childhood conception of "listening in all directions."

As the author reviewed these memories and compared them with the similar experiences and learnings of his children and their playmates, he speculated about the possibility of the rolling movements of the ship affecting unnoticeably the psychiatric resident's perception of sound in the same way as had the play activities of his childhood and those of his children and their playmates. Further mulling over these thoughts led to the realization that, unless necessary for an understanding, little attention is given to a precise recognition of minor changes in the locus of origin of sounds. Certainly this would be true in the matter of seasickness. Further speculation led to the question of how a preliminary investigation might be made by using hypnosis to create a situation in which there could be systematic but random minor alterations in the locus of sound origin not likely to be recognized. Three such individual opportunities became possible and were investigated, with positive results that minor random alterations in the loci of sound origin could be an integral but unrecognized part of a larger experience.

Additional studies with the first subject disclosed that similar results could be obtained after an understanding of the original investigation only after elaborate precautions to render the subject unaware of the changes of loci of sounds. Any precaution to prevent awareness precluded similar results. No satisfactory experiments with other subjects could be set up because of intellectual interest or curiosity about experimental procedure.

It must also be noted that both times after a trance had been effectively induced and the author had, in an unnoticeable way, introduced something that presumably led to unpleasant developments for the subject, there had occurred a spontaneous awakening by the subject characterized by an amnesia for trance events. Parenthetically, mention may be made at this point of the pertinence of these findings to the question, if there is one, of the antisocial use of hypnosis. Also, one might think about contentions that there is no such thing as hypnosis and that anything achieved by the use of hypnosis can also be accomplished by the subject in the waking state. All of the significant results obtained by

the author's investigation developed out of a trance, without any recognizable suggestion of any sort being given. These were spontaneous nausea and vomiting, spontaneous awakening, and a comprehensive amnesia. All that was suggested was merely hand levitation and eye closure.

Efforts were made to replicate this investigation subsequently with those few trained subjects who customarily developed a trance state with the eyes remaining open and who had a history of seasickness. Such subjects would either fail to develop a trance or would arouse while in the trance. There would be only bewilderment at the author's physical behavior. Having them sit with their back toward the author, in addition to adding a new element to the situation, resulted in no trance and the expressed feeling that "the whole thing seems silly." Insistence upon remaining with back toward the author not only added a new element but required repeated instruction "to be relaxed and comfortable and to remain so continuously," thereby negating possible unpleasant spontaneous developments.

One additional fact needs to be mentioned. This is that further trances could be induced in the resident only after emphatic reassurances that nothing unpleasant would happen. Even then prolonged effort was required, but thereafter trance induction was easily achieved.

Another item of suggestive importance is that three experienced subjects had failed to respond when they were used as subjects, because of amusement engendered by the author's body movements, or because of the intellectual challenge the movements presented in the prediction of the direction of the next body movement, or because of bewilderment or curiosity or some other unknown reason when asked to face away from the author when trance induction was attempted. When they were told the possibility of nausea developing as a consequence of the author's body movements during trance induction, they adopted an attitude of introspection and shortly reported an inner sense of discomfort, which they assessed as similar to the first and second accounts. However, none was willing to continue beyond the first recognition of inner somatic discomfort.

The second account was a hopeful effort to determine if there were a possibility of achieving results that might possibly validate the findings of the first account. However, the author was not too hopeful, since the professor's seasickness was less severe than had been that of the psychiatric resident. Also, he had not been at sea for over a year and he was 23 years older than the resident. Fortunately he was sufficiently interested in hypnosis to be fully cooperative as well as uncritical of the author's specious explanation that he could be more fully attentive if he kept his eyes closed so that he would not be visually distracted while the author was speaking.

The third account differed from the first two. Its primary purpose was to meet Dr. Hackett's needs by demonstrating that hypnotic results could be induced effectively in a chronic pain patient by means of a most indirect technique. The author's previous work with Frank made a trance an easy certainty. The hope was that stimuli not recognizable to the hypnotic subject and not even recognizable to Dr. Hackett until explained could result in some responses that could be used informatively for Dr. Hackett.

The secondary consideration was in relation to the author's belief that the patient was exaggeratedly and neurotically honest and that this obsessive-compulsive honesty quite possibly could be based upon some actual incident, possibly some juvenile delinquency during which "listening in all directions" was quite likely to have occurred. Hence the technique was worded to elicit some such memory "long forgotten" and "not too terrible" in the eyes of a man of wide experience in his late sixties and with an extensive history of philanthropy. The patient was protected by defining the possible incident as "not too terrible." The random, irregular changing of the locus of the author's voice was added to the indirect technique for two reasons. The first was that a specific meaningful incident might be elicited, but this was actually a mere hope not based on any factual knowledge. A second reason was that it might possibly affect the trance state in some informative way. In brief there might be something to gain but nothing to lose, and failure could be corrected by another type of approach. The results were delightfully specific, informative, and confirmatory of the first two accounts, even though they were shown in an unexpected way and served to confirm the author's suspicions of "a neurotic honesty" in the third subject.

## **SUMMARY**

Three unexpected occurrences, one in 1929, one in 1942, and the third in 1968, gave the author an opportunity to further a particular type of field investigation. This was initiated as a result of the train of thought engendered by the first event. As the author had listened to the psychiatric resident's account of seasickness marked by nausea, vomiting, and dizziness, he had recalled some of his childhood experiments and those of his playmates and some of the results of the experiences of his children and their playmates. The question arose about the role of the significance of minor changes in the loci of origin of sounds. This led to a field investigation in three separate instances, each involving only one person.

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<sup>1</sup>Quotations appearing in each account are from write-ups made at the time each case was being seen.

Hypnosis was a topic which the author had been most emphatically forbidden by the authorities of the Colorado General Hospital even to mention under threat of dismissal from his internship and the refusal of his application for examination for a state license to practice medicine. Dr. Franklin G. Ebaugh, now deceased, then the Superintendent of the Colorado State Psychopathic Hospital, however, had given the author freedom of speech and thought, and a special residency in psychiatry after he had completed his internship and secured his state license.

# **Hypnotic Investigation of Psychosomatic Phenomena: Psychosomatic Interrelationships Studied by Experimental Hypnosis**

Milton E. Erickson

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The purpose of this paper is to present an account of various psychosomatic interrelationships and interdependencies frequently encountered as coincidental phenomena during the course of hypnotic experimentation on normal subjects. No effort will be made to review the literature for reports on comparable findings made in neurological studies, in research on sensory and physiological psychology, or in other allied fields of investigation. Nor is there any intention of offering an extensive discussion of the possible significances of the observations reported, since this is primarily an initial report upon extremely complex and varied observations requiring further controlled studies. Briefly, then, the purpose is to report certain phenomena from the field of hypnotic research, of which the literature on hypnosis makes little or no mention.

These coincidental phenomena are not those usual and expected changes in psychological, physiological, and somatic behavior that are essentially common to all hypnotic subjects in profound trances, such as alterations in reaction time, sensory thresholds, muscular tonus, and similar items of behavior. Rather, they are distinct from such psychosomatic manifestations of the hypnotic trance, and they are in all probability expressive, not of the state of hypnosis itself, but of the interrelationships of hypnotically induced behavior and conditions within the trance state. That is, after a profound trance state has first been secured, specific hypnotic instructions can then be given to the subject to elicit responses of a particular sort and in a chosen modality of behavior. However, in addition to the behavior that is suggested, there may also be elicited, seemingly as coincidental manifestations, marked changes in one or another apparently unrelated modality of behavior. Or, equally significantly, hypnotic suggestions bearing upon one sphere of behavior may remain ineffective until, as a preliminary measure, definite alterations are first induced hypnotically in an apparently unrelated and independent modality of behavior. Thus, to cite general examples, effective hypnotic suggestions bearing only upon sensory responses would often elicit additional unexpected and apparently unrelated motor responses; or suggestions directed toward a sensory sphere of behavior would remain ineffective until hypnotic alterations in a seemingly unrelated motor sphere had been first induced.

These various interrelationships and interdependencies, however, were found to vary greatly from subject to subject and, to a lesser degree, for the individual subject, depending in large part upon the nature and the character of the experimental work in progress.

The findings included in this report have been collected over a period of years from a large number of normal subjects. In most cases they were made originally as an incidental part of the development of other research projects, and hence could not always be explored adequately. Whenever possible, however, each of the various findings has been confirmed by further experimental work on the same and other subjects.

These findings to be reported are of two general types. The first type consists of specific instances either observed repeatedly in the same subject and confirmed on other subjects or encountered from time to time in a number of subjects. The other type consists of a case report of the psychosomatic interrelationships and interdependencies found to exist between vision, headaches of visual origin, and hypnotically induced psychological states in which the subject was regressed to earlier age levels.

Reporting on the first type of psychosomatic interrelationships and interdependencies is difficult, since they constitute essentially individual manifestations which occur under a wide variety of circumstances and in many different associations. Furthermore they are not constant in their appearance for all subjects in the same situation, nor does the appearance of any one phenomenon necessarily signify the development of other possibly related phenomena in the same subject. However, the findings do tend to remain constant for the specific modality of behavior under investigation in the individual subject, although repeated hypnotic experiences tend to lessen progressively the extent and duration of phenomena likely to cause the subject discomfort.

With this general introduction we may turn to the experimental situations out of which our findings on psychosomatic interrelationships and interdependencies developed. Many of the findings were made originally in relation to experimental studies on hypnotically induced states or conditions of deafness, blindness, color blindness, amnesia, analgesia, anaesthesia, and age regression. (By the latter is meant the hypnotic reorientation of normal subjects to a previous period of life with a revivification of earlier patterns of behavior and response and with an amnesia for all experiences subsequent to the suggested age level.) Some of these studies have been reported in the literature (Erickson, 1933, 1935, 1937, 1938, 1939a, 1939b, 1939c, 1939d, 1941; Erickson & Brickner, 1942; Erickson & Erickson, 1938, 1941; Erickson & Kubie, 1939, 1941; Huston et al, 1934), but at best only brief mention has been made of these special findings which have been further investigated by direct studies. Briefly stated, these findings are that the development of any of these special hypnotically induced conditions or states may lead, in addition to those phenomena properly belonging to it, to any one or more of a great variety of responses and manifestations belonging properly to other modalities of behavior—for example, the development of visual and motor disturbances when only hypnotic deafness is suggested.

For purposes of brevity these phenomena will be listed under general headings, and this listing will be followed by a citing of specific examples to illustrate the coincidental developments that may be seen in relation to various induced hypnotic states. The listing is as follows:

A. Altered visual behavior

1. Decrease in visual acuity with blurring of vision and difficulty in reading
2. Contraction of the visual field
3. Difficulty in focusing gaze
4. Decreased ability in depth and distance perception
5. Subjective sense of colored vision—that is, addition of chromatic values to visual stimuli

B. Altered auditory behavior

1. Decrease in acuity
2. Inaccuracy in localizing sound
3. Distortions in perception of sound qualities

C. Altered motor behavior

1. General muscular incoordination
2. Specific motor disturbances
  - (a) Paresis and paralysis
  - (b) Apraxias
  - (c) Speech disturbances
  - (d) Dysmetria
  - (e) Ocular fixation, pupillary dilation and nystagmoid movements

D. Other types of altered behavior

1. Analgesias and anaesthesias
2. Subjective reactions of nausea and vertigo
3. Anxiety states and phobic reactions with their various physiological concomitants
4. Amnesias, usually circumscribed and specific
5. Revival of forgotten patterns of behavior

To explain the above listing, specific examples will be cited as they were observed in various types of experimental work. However, it must be noted that while some subjects showed many of the phenomena listed above, others showed few or none, depending, apparently, upon the specific type of experimentation. Thus, for example, one subject rendered hypnotically deaf might show many changes in visual, motor, and other forms of behavior, but when rendered color blind might show only one or two disturbances in other fields of behavior, while another subject rendered hypnotically color blind might show many disturbances of motor behavior but no changes in the auditory sphere. Some of these alterations in behavior preceded the development of the hypnotic condition being suggested; some accompanied the process of the development of that intended state; but most frequently they constituted a part of the total picture after the intended hypnotic condition had been established.

In presenting specific examples not all instances will be cited, since this is not intended to be a statistical account. Rather, an effort will be made to select the more typical and informative development. Also, it is to be noted that there was usually a minimum of interference by the experimenter, hence little effort to investigate the unexpected findings. There were two reasons for this—namely, the feeling that more could be learned from simple observation of these spontaneous manifestations which were not readily understood and recognized sufficiently to permit extensive experimental manipulation, and the fact that other experimental work was usually in actual progress.

One of the first instances observed was that of a hypnotically deaf subject polishing and repolishing his glasses and showing peering behavior as if he could not see well. A written inquiry disclosed him unable to read the question, although he examined the paper carefully as if trying to find the writing on it, which actually was somewhat faintly written. Finally he handed it back to the experimenter in puzzled silence. He was handed a book and a paragraph was pointed at. The subject started to ask if he were to read but showed a startle reaction immediately upon speaking. This was followed by a puzzled repetition of his question as if speaking to himself, whereupon he asked the experimenter what was wrong. Again the pantomimed instructions to read were given, but the subject seemed to experience great difficulty, and he explained that the print was blurred, that the lighting of the room was very dim, and he made anxious inquiry about his voice since he could not hear it. Examination of his eyes disclosed his pupils widely dilated. To prevent disruption of the experimental situation the subject was reassured by the measure of large script on a blackboard.

Subsequently the restoration of the subject's ability to hear restored his visual acuity, and his pupils contracted to normal size.

Another hypnotically deaf subject showed a marked loss of peripheral vision and seemed to have preserved only central vision. Other subjects showed various degrees of peripheral loss, but in no instance was an exact determination made. These subjects also showed ocular fixation and seemed to be unable to move their eyeballs freely.

One hypnotically deaf subject was noted to shift his position, to twist his body and head about, and to make strained efforts whenever he attempted to look directly at an object. Inquiry elicited the subjective statement that whenever he tried to look closely at an object it seemed to blur and to move back and forth as if alternately receding and advancing. Examination of his eyes showed a slow, irregular, alternating contraction and dilation of his pupils.

Another subject, a psychologist, spontaneously discovered that he seemed to have lost his ability for depth and distance perception, a topic he was studying at the time. He was permitted to investigate this to some extent with available apparatus, and the results obtained indicated a definite decrease in his ability to judge distances. Similar results were obtained with one other subject untrained in psychology. Somewhat comparable was the behavior of another subject who became distressed by her tendency to overreach or to under-reach when handed objects, and she was most apologetic about her

"clumsiness." The only explanation she could offer was that her body did not "feel right," that her arms and legs seemed numb and stiff, and there were many evidences of general motor incoordination and muscle paresis, but because of her emotional distress extensive investigation could not be carried on without disrupting the general experimental situation.

A subject who had been used repeatedly and successfully in conditioned reflex experiments failed to develop a conditioned response based upon a pain-light stimulus complex, since he invariably developed a generalized anaesthesia when rendered hypnotically deaf. Another conditioned-reflex subject, reported upon briefly in another study (Erickson, 1938), invariably developed a progressive anaesthesia when rendered hypnotically deaf.

Two subjects when hypnotically deaf were found to have a subjective sense of colored vision, explaining respectively that everything seemed to have a reddish or bluish hue, and they suspected the experimenter of secretly employing colored light to achieve this effect.

Subjective feelings of nausea and vertigo invariably developed in one subject whenever a state of hypnotic deafness became well established for her. She rationalized this by explaining that her voice did not "feel right" in her throat, but the measure of keeping silent did not lessen her subjective distress. Additionally, she showed nystagmoid movements and pupillary dilation. Restoration of hearing would immediately correct all of these deviations from the normal, and efforts to alleviate her distress tended to remove the hypnotic deafness.

Another subject, who developed hypnotic deafness satisfactorily, seemed to be unable to respond to instructions to recover his hearing. Much effort and investigation finally disclosed that with the onset of hypnotic deafness there occurred an extensive anaesthesia. Until this anaesthesia was corrected he could not recover his hearing except through the experimentally unsatisfactory measure of awakening from the trance state. Several other subjects have shown a comparable inability to recover from induced behavior changes until the coincidental developments were first corrected, unless resort was had to the measure of awakening them from the trance state, usually an undesirable method since it disrupts the general experimental situation.

A peculiar circumscribed amnesia for anything pertaining to the radio was shown by one subject, a medical student, whenever he became hypnotically deaf. He readily detected the sound vibrations of the radio when he happened to touch it, showed a lively curiosity about it, but seemed incapable of understanding any information given him about it. He regarded the radio as some form of a "vibrator" such as might be used in physiotherapy and was obviously incredulous of the explanations given him by the experimenter. A possibly significant item from his past history related to many reprimands given him by his father for his neglect of his studies in high school because of his excessive interest in the radio. Restoration of hearing always corrected this amnesia. Several other subjects showed somewhat similar circumscribed amnesias in that while in the deaf state they

would be unable to call to mind items of memory otherwise readily accessible to them. Thus one subject could never remember when deaf a certain professor's name, and another invariably forgot a certain street address. Comparable findings are reported in a special study on aphasiclike reactions from hypnotically induced amnesias (Erickson and Brickner, 1942). Yet in the ordinary trance or waking states none of these subjects showed special amnesic reactions.

More common in hypnotic deafness than the above manifestations were states of anxiety and panic, and phobic reactions with their various physiological concomitants of increased pulse and respiratory rates, tremors, and excessive perspiration (Erickson, 1938). Usually these manifestations would be attributed by the subjects to the experience of finding themselves unable to hear, and they would especially comment upon the unpleasantness of not being able to hear their own voice. Occasionally, however, a subject would show only increased perspiration, tremors, or other evidence of a state of tension, which he would not be able to explain and which were apparently not accompanied by any feelings of subjective distress.

In the development of these types of additional behavior disturbances the time of their appearance varied greatly. Thus several subjects given suggestions to develop hypnotic deafness invariably showed a preliminary state of rigidity and immobility with generalized anaesthesia. As the state of deafness became established, these preliminary manifestations slowly disappeared completely. Any attempt to prevent these preliminary manifestations seemed to preclude the development of deafness, but suggestions leading to such immobility and anaesthesia hastened the appearance of deafness. Another subject was found to be resistant to suggestions of deafness until he had first been given suggestions for a generalized amnesia. Following this, deafness could be induced. In large part, however, the additional behavior disturbances seemed to be an essential part of the established state of deafness, and any disruption of them tended to disrupt the state of hypnotic deafness also. These general findings were found to be true for other special hypnotically induced conditions or states.

In brief, the induction of hypnotic deafness in the normal subject may lead to the development of a variety of other behavior disturbances. These additional manifestations seem to constitute a part of the process of developing the suggested auditory disturbance or of maintaining it, or to be an expression of the imbalance of the psychophysiological functioning caused by the induced auditory disturbance.

In studies of hypnotic blindness, color blindness, amnesia, analgesia, anaesthesia, age regression, and posthypnotic behavior, the coincidental phenomena, depending upon the exact nature of the experimental work in progress, were found to be essentially similar to those developing in relation to hypnotic deafness. Hence they will not be reported in full detail; instead, emphasis will be placed upon those instances found specifically in various of these special hypnotic states.

In hypnotic blindness the coincidental phenomena tended to be limited to fear reactions with corresponding physiological concomitants. However, one subject showed a definite

decrease in auditory acuity, another developed a marked increase in muscular tonus with a subjective feeling of stiffness and rigidity, while still another showed an extensive analgesia and anaesthesia of the legs and arms which persisted throughout the state of visual disturbance. In one study (Erickson, 1941) it was found that hypnotic blindness could not be induced except as the culminating feature of an induced acute obsessional hysterical state. In general the feeling of helplessness these subjects experienced and their tendency to become frightened by the situation in which they found themselves made experimental manipulations difficult.

Hypnotic color blindness, like hypnotic deafness, yielded a large variety of unexpected behavior disturbances. Foremost among these were emotional reactions of marked distress accompanied by increased pulse and respiratory rates, tremors, and excessive perspiration. These seemed to derive primarily from the feelings of disorientation and confusion caused by the changed appearance of the experimental setting as a result of the visual disturbance. As was briefly mentioned in another study (Erickson, 1939d), one subject became seriously distressed by her inability to recognize her dress as her own. Reassurances by the experimenter served to allay in large part these manifestations.

In the sphere of auditory behavior two subjects with induced color blindness showed an inability to localize sound correctly, and both commented spontaneously on their subjective feeling that the experimenter's voice did not seem to emanate from him and that his voice had changed markedly in its tonal qualities. Both were observed to turn their heads and listen in the wrong direction to unexpected sounds, ordinarily familiar to them. One subject became greatly interested in investigating the altered character of sounds, periodically interrupting her investigation to ask for reassurances to the effect that the experimenter had full control over the situation. A stopwatch was described as ticking in an unusually muffled way, the tapping of a pencil was regarded as having a "thick, dull" sound, and the squeaking of certain door hinges familiar to her was found to be extremely unpleasant, having a peculiar shrill quality, although in the ordinary trance or waking state she did not react unfavorably to that particular sound.

One special finding in relation to hypnotic color blindness was the unexpected discovery of two instances of synesthesia, the first of which has been reported upon briefly in the study of hypnotic color blindness. This instance was marked by a loss of conceptual values and meanings for the word three and its corresponding numeral upon the development of red color blindness. Restoration of color vision restored conceptual values. The second instance was an association of the color red with the numeral 7. Color blindness resulted in a feeling of unfamiliarity for that number despite its recognition, but there was no actual loss of conceptual values. Nor could the subject explain in what way the numeral 7 had changed. Additionally, this subject was found to show synopsia, in that certain sounds always carried a reddish color significance for her. Upon the induction of color blindness these sounds lost their characteristics of warmth and familiarity and in some instances she failed to recognize them, especially in connection with music. A phonograph record played for her was described as having an "incredible number of mistakes," and she wondered why such a recording should ever have been made. When

these two subjects were rendered hypnotically deaf, however, the numerical concepts retained their chromatic associations.

In relation to posthypnotic behavior and amnesia a not uncommon finding was the development of a headache when the subject was given an unpleasant posthypnotic task to perform or was asked to develop an amnesia. One example is that of a junior medical student who, because of previous experience as a subject, volunteered for a class demonstration. There were no unexpected manifestations until he was asked to develop an amnesia for all hypnotic experiences including the present one and to awaken with a firm conviction that he never had been hypnotized and that in all probability he could not be. The subject performed this task adequately but soon developed a severe headache, which was readily removed by the simple measure of letting him recover his memories. He later explained that he resented being asked to develop an amnesia for his past hypnotic experience and that he felt that this resentment had caused his headache.

With other subjects who have failed to develop hypnotic amnesias readily, experience has disclosed that the measure of suggesting that they forget some unpleasant thing, to which suggestion the significant qualification is added "even though it causes you to have a headache," often enables the subject to develop additional amnesias previously impossible and without experiencing an associated headache. Other subjects react to amnesias by the spontaneous development of a headache, and still others show peculiar anaesthesias upon the induction of amnesic states event of a limited character. Thus one subject instructed to become amnesic for certain trance experiences developed a persistent anaesthesia of her hands. This was discovered when she attempted to do some writing. Correction of her amnesia enabled her to write. However, this hand anaesthesia developed only when she was given instructions to forget specific items, and it did not accompany spontaneous generalized amnesias.

Two female subjects to whom a phobia for cats had been suggested developed olfactory behavior changes in that one of the subjects became hypersensitive to unpleasant and the other inexplicably interested in pleasant odors until the suggested phobia had been removed. However, suggested olfactory sensitivity did not result in phobic reactions.

Another subject to whom a general disorientation for time and place had been suggested developed a very definite speech defect and stammered, although he had no history of previous stammering. Several months later in another setting the same subject was instructed to become equally confident that a certain specific event which had occurred only once had happened on two distinctly different days and to defend these beliefs emphatically. He again developed his serious stammering, and in addition he became disoriented for time, place, and person with the exception of the experimenter. On still another occasion he was asked to forget that a friend of his had been sitting in a certain chair and to be most confident in his assertion that his friend had occupied an entirely different seat. The subject responded to this task by first developing a stammer, but shortly this disappeared and it was replaced by an amnesia for the identity of his friend. He was shortly given a book to read, and after he had read aloud from it, he was told he

would stammer on the next paragraphs. This stammering resulted in the recovery of the friend's identity.

In relation to regression two subjects who are reported in another paper (Erickson, 1943), when reoriented to a period of life antedating the development of certain food intolerances, were enabled to enjoy the otherwise unacceptable food.

Several adult subjects, when regressed to earlier childhood age levels, have shown marked changes in their motor behavior (Erickson, 1939a). Two other such subjects wrote freely and easily with a backhand slant without error, although special inquiry disclosed that they had changed to a forward slope 15 and 18 years ago, respectively. Another subject who habitually wrote with a backhand slope, in the regressed state wrote with a forward slope. An inquiry proved that this change in her handwriting had occurred at the time of puberty. Efforts in the ordinary trance and waking states to secure duplications of their earlier patterns of writing resulted at best in only fair approximation with many errors.

In brief, the hypnotic induction of disturbances in any chosen modality of behavior is likely to be accompanied by disturbances in other modalities. These vary greatly in their nature and variety and in their relationship to the primary induced behavior disturbance.

## **CASE REPORT**

The report of a case history illustrating various psychosomatic interrelationships and interdependencies may be presented by a listing of the pertinent facts.

The subject was a medical intern who suffered from a high degree of myopia. Whenever forced to do without his glasses, he developed severe headaches. Subsequent to his first hypnotic trance it was learned that he had received his first pair of glasses at the age of 10 years upon the recommendation of his school nurse because of his severe headaches from eyestrain. The original prescription for glasses had been changed for one less strong when he was about 14 years old and these he still wore. His mother, fortunately, had kept his first pair of glasses.

For demonstration purposes before a group this subject had been deeply hypnotized and then reoriented to an age of eight years and awakened in that state of regression.

Promptly upon awakening he removed his glasses, refusing to wear them and seeming to be amazed to be wearing them. When he was persuaded to wear the glasses, he complained that they hurt his eyes, and shortly he became resentful because, he explained, they made his head hurt and he could not see well. Accordingly, he was allowed to take off his glasses and he was then interested in a series of tasks all involving eyestrain, such as reading books held at the wrong distance, threading fine needles, and similar tasks. He cooperated readily for about an hour without subjective complaints. He was then reoriented immediately to his current age and awakened, but he was found to be free of subjective discomfort. As a control measure he was subsequently asked to perform

similar tasks in the ordinary waking state without his glasses, but each time he developed a headache after about a half-hour of effort.

A series of trances over a period of weeks then disclosed that the hypnotic regression of this subject to various age levels yielded the following pertinent findings:

I. At 8- and 9-year levels:

- a. Refusal to wear both pairs of glasses and complaints that they hurt his eyes
- b. No subjective symptoms from deliberate eyestrain
- c. Denial of headaches at 8-year age level, but admission of occasional headaches at 9-year age level
- d. No subjective symptoms when awakened from these age levels after eyestrain.

II. At 10- to 13-year levels:

- a. Ready wearing of first but not of second pair of glasses
- b. Prompt development of headaches when induced to dispense with glasses
- c. Complaint of headache when induced to wear the second pair of glasses
- d. Persistence of headaches when awakened from the trance state after eyestrain
- e. Abolishment of headaches when regressed to any previous age level after eyestrain had resulted in headaches
- f. Failure to reestablish headache abolished by reorientation to an earlier age by subsequent reorientation back to the age level at which the headache had been developed unless care was taken to specify the exact date

III. At 14 and subsequent years:

- a. Recognition of first pair of glasses, but subjective complaints when induced to wear them more than an hour, and ready wearing of second pair of glasses with no subjective complaints
- b. Development of headaches upon eyestrain
- c. Persistence of these headaches when awakened from the trance after such eyestrain
- d. Abolishment of headaches immediately upon regression to any earlier age level
- e. Failure to reestablish headache abolished by reorientation to an earlier age by subsequent reorientation back to the age level at which the headache had been developed unless care was taken to specify the exact date

Control tests conducted in the ordinary trance and waking states disclosed the subject to be unable either to dispense with his current pair of glasses or to wear the first pair without soon developing headaches.

When the subject was informed of the experimental results, he was inclined to doubt their validity. He asked that a repetition, while a fellow intern acted as an observer, be made of the various procedures to satisfy him that he could dispense with his glasses without developing a headache when reoriented to an earlier age. The experimental results obtained confirmed the previous results. The subject was much intrigued by the proof offered him that in a certain psychological state he could dispense with his glasses, and he made repeated but unsuccessful efforts on his own initiative in the waking state to achieve comparable results.

These findings are comparable to those reported previously in an account of the apparent development of a state of unconsciousness during the reliving of an amnesic traumatic experience (Erickson, 1937) and in the repeated findings that acquired food intolerances and phobic reactions are not manifested by subjects regressed to a period of life antedating those developments (Erickson, 1943).

In brief, this case report discloses that, contrary to the actual current physical status of the subject, there were positive and striking correlations between the nonwearing and the wearing of glasses and the development of headaches in accord with past chronological physical states and experiences.

## **DISCUSSION**

Discussion of these findings may be summarized by the statement that they constitute an experimental demonstration of unsuspected and unrealized interrelationships and interdependencies that exist between various modalities of behavior, an understanding of which is most important in any effort to deal effectively with the complex symptomatology of psychopathological conditions. Particularly do these findings demonstrate that psychopathological manifestations need not necessarily be considered as expressive of combined or multiple disturbances of several different modalities of behavior. Rather, they disclose that a disturbance in one single modality may actually be expressed in several other spheres of behavior as apparently unrelated coincidental disturbances. Hence, seemingly different symptoms may be but various aspects of a single manifestation for which the modalities of expression may properly be disregarded. Just as the hypnotically deaf subject manifested, as a part of his state of deafness, additional sensory or motor changes, so it may be that psychopathological manifestations involving several modalities of behavior are actually expressive of but a single disturbance in only one modality of behavior. Furthermore, just as the experimental approach to one modality of behavior was often dependent upon another apparently unrelated sphere of behavior, so it may be that the primary task in the therapy of various psychopathological conditions may be dependent upon an approach seemingly unrelated to the actual problem, even as hypnotic deafness was sometimes best achieved by first inducing an anaesthesia.

In brief, these experimental findings suggest that psychopathological phenomena cannot be understood in terms of the modality of their expression and manifestation alone, but

rather that an understanding must be looked for in terms of their fundamental interrelationships and interdependencies.

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# **Hypnotic Investigation of Psychosomatic Phenomena: The Development of Aphasiclike Reactions from Hypnotically Induced Amnesias**

## ***Experimental Observations and a Detailed Case Report***

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From time to time in hypnotic experimentation, either from direct or indirect suggestions, unexpected and unusual manifestations develop which parallel in many regards the aphasias seen in neurological practice. They are usually of a limited, circumscribed character, cause the subject a certain amount of mental distress, and are recovered from either spontaneously, when the hypnotic experimentation from which they derive is concluded, or upon suggestions from the hypnotist.

Unfortunately the experimental hypnotic situation usually does not permit an adequate investigation of the phenomena, or the nature of the development necessitates an interference with the manifestations. Furthermore there seems to be little possibility of doing this type of experimentation directly and intentionally, since such attempts serve only to alter the total experimental response and the results obtained are in accord with the subjects' understanding of the experimental purposes and the precise instructions given. Efforts made to elicit directly aphasiclike reactions secured only amnesias, blocking, or selective restrictions of behavioral responses expressive of the individual's immediate grasp of instructions. To date, despite repeated efforts with subjects who had shown such phenomena spontaneously, direct efforts have failed, except through the measure of having them relive previous spontaneous manifestations.

A number of the spontaneous experimental instances will now be cited, and these will be followed by a case report in which there was opportunity for detailed study of the subject's behavior.

First among these instances is one relating to the induction in a subject of an amnesia for her name. Subsequently she was called upon, while this amnesia still persisted, to demonstrate automatic writing, the primary object being to disclose the juvenile character of automatic script. By chance the subject was told the sentence she would write would read, "This is Eloise Hospital." She performed as requested but without capitalizing the proper letters. This oversight was regarded merely as expressive of the characteristic economy of effort frequently seen in automatic writing.

Since the subject expressed recurring emotional distress over her amnesia for her name, the suggestion was offered that she might list the names of other persons present as a

measure of reestablishing her associations for her own name. She acted upon the suggestion readily, but it was soon noted that no capital letters were used in making her written list. The same observation was made when she was asked to list various cities she had visited. No comment was made to her, but she spontaneously observed that "Something is wrong. Those names don't look right to me. I have a feeling I have misspelled them." She scrutinized the lists and the original sentence uneasily and explained, "Everything seems to be all right. I just have a queer feeling that something is wrong with the spelling." Here she began to spell the various names aloud, shaking her head dubiously each time she did so. In no instance did she seem to be aware of the need for capital letters.

She was interrupted by being asked if she knew the proper, formal, and conventional form for heading a business letter. She replied with amusement that she did. She was then asked to write out in proper fashion and with the proper heading a formal business letter addressed to one of the authors, Dr. Erickson. She did so promptly and correctly with the exception that no capital letters were employed. After writing his middle initial, however, she inquired specifically if it was correct as she had written it. She was given the casual reply that his middle name was "Hyland," and she was asked, "Does that answer your question?" She replied, "Yes, but somehow there seems to be something wrong here the way I have written it. Just like that there (pointing to the other written material). The spelling is all right, the punctuation is correct, and the margin is O.K., but I have a most uncomfortable feeling that it is all wrong and I don't know why." Nor could she verbalize her feelings further.

Unfortunately no further investigation was made. Upon restoration of her memory for her own name she wrote it correctly at the request of a member of the group.

A second example concerns a stenographer to whom an amnesia was suggested for material just dictated and recorded by her in shorthand. Later that day, and before she had transcribed her notes, she was called upon by a colleague to take more dictation. A serious state of emotional distress developed when she discovered that not only could she not write shorthand but that she could not read even the shorthand in her notebook which she was fully aware she had already transcribed. Because of her emotional distress it became necessary to induce a new trance and to readminister the amnesia instructions, limiting them carefully to the content of the material. Indeed, the subject promptly sought out the hypnotist to report her problem and to ask for aid.

Another stenographer was told to forget the names of all her teachers, and she was further told that this amnesia would persist for several days, the purpose being to make a study of amnesia. Upon being awakened from the trance, she was given the task of filing data, and when this job had been completed, she was asked to take dictation. The discovery was made at once that she had a complete amnesia for shorthand. She was so frightened by this loss that it became necessary to rehypnotize her and to give her specific instruction to remember her shorthand ability. (It is to be noted in this case and the preceding instance, as well as in other similar instances, that the immediate availability of the hypnotist, of which there was full awareness on the part of the subjects, served to preclude them from

reacting too unfavorably to their emotional distress and from spontaneously correcting the difficult situation in which they found themselves. Knowledge that the hypnotist was available for prompt intervention helped them to endure their distress until aid was given. Otherwise, as is shown in the detailed case report, when aid was refused, the subject simply made a spontaneous recovery).

The discovery was made that a patient was planning to escape from the mental hospital. Since he was a trained hypnotic subject, he was hypnotized deeply and the entire matter discussed at length with him. This discussion resulted in the patient's abandonment of this plan. The next day, by chance, it was discovered that the patient had lost his ability to recognize keys, did not know how to use them, and showed an extremely lively childish curiosity about them. Unfortunately no systematic investigation was made, and on the following day the patient was found to have recovered fully his understanding of keys.

Another instance, somewhat similar to the detailed case report, relates to a 19-year-old boy with less than normal intelligence who was instructed to forget his age. While this amnesia persisted, it was found that he could neither read nor write the number or the word signifying his age. Nor did he recognize the number when it was spoken to him. Correction of the amnesia caused the immediate disappearance of this manifestation.

### **DETAILED CASE REPORT**

This subject was a 19-year-old boy, C. L., whose I.Q., as determined independently by several psychometrists, was in the lower 80's. Nevertheless he was a remarkably good hypnotic subject and had often been used for demonstration work.

On one such occasion he was told in a series of graduated suggestions, the content of which may be summarized as: "Forget how old you are. Just forget your age and don't remember how old you are until you hear me snap my fingers five times. Understand? You don't know how old you are—you've just forgotten completely." The experimental purpose in mind was merely to demonstrate the possible development of a limited amnesic state.

Later, after he had been awakened from the trance state, but before anything relating to his age had been said, the subject was asked to write automatically a number of dictated sentences, and thus to demonstrate the juvenile character of such handwriting. At the completion of this task he was asked by chance to number the sentences. He manifested immediate willingness but seemed to be inexplicably confused, uncertain, and hesitant. Cautiously, since his behavior was not readily understandable, he was urged "go ahead, go ahead." After a few uncertain, confused movements he seemed to omit from further consideration the first sentence and proceeded to number correctly the next four sentences as 2, 3, 4, and 5. Pausing, and seeming to study the task, he returned to the first sentence and numbered it with a zero. This apparently did not seem to satisfy him entirely, but he resumed the task at the 6<sup>th</sup> sentence and continued numbering correctly until he reached the 9<sup>th</sup> sentence. Thereupon another state of confusion developed, which he finally resolved by numbering it with a 0. At once he seemed to realize he had done

the same for the first sentence. Laboriously he erased the first 0 and replaced it with another, as if correcting an error. Noting then that the 9<sup>th</sup> sentence was marked by a 0, he promptly erased it and replaced it, again as if he were correcting an error.

In looking over his work, he suddenly observed with bewilderment that there were still 0's for the 1st and 9<sup>th</sup> sentences. Promptly he declared, "There's a mistake here, something's wrong" and he seemed rather dismayed. He was told, "Never mind, just go ahead with your job."

Still glancing hesitantly at the 1<sup>st</sup> and 9<sup>th</sup> sentences, he proceeded to number the 10<sup>th</sup> and last sentence with two 0's. As he handed the sheet to the hypnotist, he became aware that the 10<sup>th</sup> sentence was wrongly marked and corrected it by an erasure and a replacement of the two 0's. Then, again glancing over the sheet, he became increasingly puzzled and uncertain, and he repeated his statement that "something's all wrong."

Disregarding his protest, two more sentences were dictated to him and he was asked, "just keep on with the job and number those sentences also." The 11<sup>th</sup> was given two 0's but the 12<sup>th</sup> was correctly numbered. Without giving him any opportunity to pause he was told, "Just keep on writing numbers in the right order until I tell you to stop. Just make neat columns up and down the page, going on from where you left off with the sentences."

In this way it was found that all other numbers could be written correctly with the exception that 19 was omitted entirely, while 29, 39, etc. were written as 20, 30 etc. The number 89, actually written 80, was followed by a figure comprised of three 0's. At this point he was told to stop and was asked, "How far have you gotten?" He replied "one hundred" and then repeated his answer several times, with a very peculiar emphasis on the "one."

Before anything could be said to him, he began looking over his handiwork. In a puzzled fashion he placed his forefinger successively on 81, 71, 61, etc., finally announcing in a dismayed tone of voice the he had discovered "some mistakes." Seizing the eraser, he proceeded to remove all 0's and to replace them energetically with the numeral 1. As he completed this task by changing the three 0's for 100 into 111, he became even more bewildered and explained "That don't seem to work out right. It's still wrong." He was urged, "Just keep on trying and see if you can work it out right. Just take your time. Start at the beginning and don't hurry."

Laboriously he set about the task, muttering "one hundred-one-that's right." Starting with the first sentence, he declared it correctly numbered. The 9<sup>th</sup>, however, he declared was wrong "Because one, that's where you start, it's the first number and this ain't the first sentence." Passing hesitantly on to the 10<sup>th</sup> and 11<sup>th</sup>, he declared them wrong "because they're two numbers like those," pointing to 12 and 13. Continuing he explained "They're both elevens that way, and one should be a ten so you write '10' this way," suiting his action to his words.

He proceeded with his task by running his pencil down the column of numbers, but he failed to observe that 19 had been omitted. Instead he became interested in the two successive 21's, resulting from the alteration of the numeral 20 by the replacement of the 0 with a 1. After making the proper correction, he continued with his inspection of the column. Pausing at 29, actually written now as 21, he compared it visually with the correct 21.

Apparently puzzled by their identity, he began counting rapidly to himself, omitting as he did so 9 and 19, and he followed the numeral 28 with 30. This led to the discovery that, in addition to the 21 written between 28 and 30, the number 30 was actually written as 31. Distracted by this error he embarrassedly corrected it, explaining, "It's just like that 20. I got too busy with the eraser and didn't watch what I was doing."

Returning to the problem constituted by the two 21's, he repeated his count as before and then explained, "I must've been in a hurry and stuck in an extra 21." Thereupon he erased it neatly.

Continuing his checking of the column, he soon discovered 31 in place of 39. Apparently, however, he observed at the same time the two 41's, since immediately he glanced back at the corrected 30 and then the corrected 20, pointing them out to himself with his index finger as he did so.

This apparently suggested a new idea to him, for at once he glanced ahead to note the 51 and the 61 in place of 50 and 60 respectively. Simultaneously he discovered that there was a third 41 representing a 49, adjacent to the 51 and a comparable error in the 50's, 60's, etc.

He commented with marked embarrassment, "That's a funny lot of mistakes to keep making. I sure must be dumb today. I must be going nuts if I can't write numbers right." Slowly, systematically, and with laborious care he proceeded to make erasures and corrections, concluding the task by changing 111 to 100.

Handing the sheet to the hypnotist he declared, "It's O.K. now."

He was asked if he could count. He flushed as he replied earnestly, "It sure don't look it after all those mistakes, but I can."

Accordingly he was asked, "Well, just count for me slowly and carefully and point to each number as you have it written there while you do the counting." Confidently he began this task, but as he reached the numeral 8, he apparently glanced ahead and saw the 1 still in the place of 9.

Interrupting himself, he declared with marked embarrassment, "There's an extra 1 I forgot to erase when I was erasing those other extra numbers. I sure must be nuts." Promptly he erased it and hastily checked through the rest of the numbers, as if to assure

himself that no other errors had been overlooked. Finding none he declared, "It's really O.K. now."

He was asked to continue his counting. He proceeded, omitting 9, 19, and all numerals ending in nine. So far as could be judged, there was no hesitation or faltering in his voice in relation to the omitted numbers. When, however, he followed 88 with 100, he became aware that something was amiss, declaring, "Say, there's something wrong here. You don't say 88, 100, but. . . . Here he interrupted himself to repeat a second and a third time his count, beginning with the numeral 1, ending each time with "88, 100." With many puzzled shakes of his head he repeatedly declared that something was "awful wrong. " What this might be he could not define other than to say "88, 100, that don't sound right, it don't sound natural."

The measure of having him count from 100 to 200 yielded comparable results. However, the sequence of "188, 200" made him declare that perhaps he merely thought he was not counting correctly.

The suggestion was offered that he could prove to his own satisfaction that he could count correctly by enumerating aloud his fingers. To this he replied, "Sure, I got ten fingers—everybody's got ten fingers if he ain't lost them in an accident. I'll count mine if you want me to."

Asked to do so, he began readily, but when he enumerated the ninth finger as number 10, in consequence of the omission of the number, 9, he embarrassedly remarked, "I must've got mixed up when I changed hands there, so I'll start over again." After two further efforts leading to the same results, the subject became more distressed than embarrassed, reiterated his explanation of getting confused when he shifted from the right to the left hand in ticking off his fingers, and glanced repeatedly in a worried fashion at the sheet of paper bearing the marks of many erasures.

To prevent a disruption of the situation through the development of a strong emotional reaction he was reassured by the simple measure of having him count separately the fingers on each hand and then add the totals. This apparently restored his general self-confidence and relieved his emotional distress.

His attention was then called to a wall calendar showing the current month on the upper half and all the months on the lower half.

To avoid detailed description, the various tasks the subject was called upon to perform will be listed below in chronological order. In addition the nature of his performance of each will be indicated. Also it may be added that the subject was deliberately hurried from one task to the next in a most urgent fashion to prevent emotional disturbances or any spontaneous disruption of his existing mental state.

1. State the number of months in a year. (12)

2. Read aloud rapidly, apparently at random, as indicated by the hypnotist, all of the dates in various months on which each of the days of the week fell. (Correctly performed. Care was taken by the hypnotist to avoid any column containing 9's.)
3. State the number of days in a month. (30, 31)
4. Confirm the fact that the lower half of the calendar showed the months arranged in 4 rows of 3 each or 3 rows of 4 each. (He agreed and also declared that 4 times 3 is 12 and that 3 times 4 is 12.)
5. Reaffirm the number of his fingers. (10)
6. Read aloud rapidly the days of the month. (Correctly done, except 9 was regarded as an "upside down 6 and a mistake," 19 as "another 16 with the 6 upside down like that other 6," and 29 as "26 again, upside down too, that is, the six is upside down like those other sixes. There's an awful lot of mistakes. I didn't know they made mistakes on calendars.")
7. Count the months of the year. (13, "what the hell—" repeated count of 13.)
8. Count hypnotist's finger. (11, 11, 11—"That ain't right.")
9. Count days of the current month by counting all the Sundays, then the Mondays, etc., instead of following the numerical sequence. (33 days—"I sure get mixed up in my counting." Care was taken by the hypnotist to obscure each numeral by covering it in large part with his fingers so that it could be seen in part but not really read.)
10. Count days of the next month. (34—"I'm getting worse. I must be' awful dumb today.")
11. Count in numerical order the days of the month ("1, 2, 3, 4, 5, 6, 7, 8, there's that upside down 6 that should be a 10-then this 10 would be 11-that makes all these other days wrong-and this upside-down 16-and this other 26-say, you can't count on this calendar with all these mistakes. No wonder I got 33 days. I thought that was kinda funny, but it wasn't my fault at all. Where did you get a phony calendar like that?")
12. Discover through silent assistance on the part of the hypnotist that all other calendars, even books and newspapers were similarly numbered. (Cumulative, obvious, and troubled distrust of hypnotist and general fearful uneasiness and bewilderment.)
13. Discover that without the "mistakes," each month would have too few days. (Unable apparently to meet the intellectual task involved.)
14. Repeat count of months of year and of hypnotist's fingers. (13-11, and increasing distrust and fear).
15. Arrange paper clips into 3 rows of 6 each, and then alongside of the first row place 4 additional clips, with 3 additional for the second row and 2 additional for the 3rd row, and then to determine the total number of clips in the first and third rows by addition, not by counting. (10-8)
16. Determine number of paper clips in second row. (Bewilderment, hesitation, confusion, with muttering of "it ain't 10 and it ain't 8. 6 and 5 are 11, so it ain't 11, but its got to be something. There's something awful phony here," and he announced his desire to depart without delay.)
17. Place the paper clips from the second row, one at a time on the days of the month as shown on the calendar, beginning with the first of the month, announcing the

total number of clips placed as he laid each down. ("1, 2, 3, 4, 5, 6, that's all of that row, do I use them three too-7, 8, say this last one goes on that upside down 6. What the hell is going on here? And another one makes it even 10. And what are you (the hypnotist) doing all that writing for (taking of notes on his behavior)? I don't like this a bit, and I'm going to get the hell out of here right now." However, he yielded to persuasion to remain when finally assured he had nothing to fear.)

18. Discover "just what you think this whole business that's puzzling you is all about?" ("About counting and all these mistakes in the calendar and the books and what I wrote.")
19. Count the slips in the first row. ("Don't need to, there's 10.")
20. Count the clips in the first row. ("1, 2, 3, 4, 5, 6, 7, 8, 10,-11-there it goes again, just like your fingers and my fingers. I got too many days in the month too. I even counted the months wrong. I don't like it. Are you giving me a brain test like you do the patients here? There's something phony going on here." Reassured again, he consented to stay a while longer.)
21. Discover "just what you think this whole business that's puzzling you is all about?" ("I guess it's this counting business, specially this upside-down 6. It looks like a mistake to me but the calendar's got it, all the books got it, and I sure as hell can't count straight today, so it looks like there's something wrong with me.")
22. Attempt reading. (Failed to recognize the word nine in any form, complained that he did not read well, since many words were too big and he had only gone to the 6th grade. Nor did he recognize "nine" or "nineteen" when these words among others were spelled to him.)
23. Look further into the matter. ("Well, all these upside-down numbers-let's see the numbers I wrote for you-there ain't none there just the places where I made a lot of mistakes." Then, after rapidly checking aloud his written figures, he declared, "Nope, this is all O. K.")

Apparently his intellectual endowment was not sufficient to permit his spontaneous appreciation of the situation. Then, by the measure of letting him count out in groups of five each a total of 100 paper clips and similar such concrete expedients, it became possible to demonstrate systematically to him the falsity of his method of counting. As this procedure continued, the subject became greatly worried and frightened and seemed to have much difficulty in thinking. Accordingly, much to his relief a casual conversation was begun, and after a while he was asked if he knew the date of his birthday.

His reply was, "I sure do. It's December 4th," and he offered various reminiscences.

After still further conversation he was asked, "By the way, what year were you born?"

After a startled pause, he stammered bewilderedly, and in his confusion and uncertainty it became necessary to question him simply and carefully before coherent replies could be obtained. It was learned that he did not know:

1. The year of his birth, although he was certain of the day of his birth.

2. The current year, although he knew the current day and the month. (The calendar had been carefully put aside, but even so, he tried to find it.)
3. He did remember that he had been 17 years old, he was confident that he had also been 18, and he was equally confident that he had not yet been 20. Rather he was "between 18 and 20 years old, and it's June now, and my birthday ain't until December so you might say I'm 18%. But that don't sound right. It's just like that counting business you made me do. It's just all mixed up. All I want to do is go home and sleep and get over all this. It ain't doing me any good, and I'm getting a headache from trying to figure things out, and it don't do a man any good to find out he don't even know when he was born."

Recognizing the underlying request and significances of this remark, the subject was dismissed. When seen the next day, he had apparently spontaneously recovered his memory for his age and all related facts. When an attempt was made to ascertain his recollections of the previous day's work, the subject related that the hypnotic demonstration had left him a bit "dizzy" and suffering from a headache which got him "all muddled up." "All I remember is that I did an awful lot of counting and figuring for you, and it didn't seem to make much sense. It just made my headache worse, and that's about all I remember."

Subsequently in a trance state he was asked to explain. This he did by declaring that he had really forgotten how old he was, but he could offer no explanation regarding the forgetting of the nines and nineteens. This, he stated, he did not understand himself. He recognized that there was a certain relationship between his age and those numbers. He explained that when his age was forgotten, so were those numbers, and that the sight of them had impressed him as nonsense figures, until he had recognized the 9 as a 6 upside down. Thereafter he had continued to think of 9 as an inverted 6.

## **DISCUSSION**

Occasional opportunities present themselves with which to explore further the nature and functions of what has been termed the "neurointellectual system. The observations just described appear to furnish such an opportunity.

The 'neurointellectual' system is thought of as acting in a manner comparable with that of the neuromuscular and neurosensory systems. The implication is that the nerve impulse may affect similarly the neurone beds underlying intellectual, muscular, and other functions. This in turn implies that these functions, although they differ greatly in their outward manifestations largely because of their manifold end organs, are identical from a neural standpoint. All of these systems are thought to operate by the same laws and to be subject to the same physiological and pathological influences. It is thought possible that our greater knowledge of muscular than of intellectual function may be largely due to the fact that muscles and their actions are more concrete than ideas. Hence our comprehension of the physiology and pathology of the neurointellectual system

may gain if we study it in the image of the neuromuscular and neurosensory systems (Brickner, Rosner, et al, 1940).

This concept of a neurointellectual system helps to elucidate phenomena like those shown by the patient C. L., and conversely, his behavior illustrates in a hitherto unexplored way the behavior of that system. Previously neurointellectual functions were studied in two main ways—by observation of patients after lobectomy and lobotomy (Ackerly, 1935; Brickner, 1936, 1939a, 1939b; Freeman & Watts, 1942) and by certain intellectual processes resulting from cortical stimulation and release (Brickner, 1938, 1940; Foerster, 1928). In the cases of stimulation and release the stimulus was usually the epileptic process. It was found that streams of ideas could be elicited by that process which appeared comparable in every basic way to the muscular movements resulting from the action of the epileptic process upon other neurone beds. In other instances phenomena in which intellect played a large but not exclusive part were evoked by electrical and mechanical stimulation (Brickner, 1938, 1940); and in still others by that postencephalitic process which produces oculo-gyric crises (Brickner, Rosner, et al., 1940). All of these observations led to the deduction that the neurointellectual system followed the same laws of reaction to stimulation and release as the rest of the nervous system. These reactions could be traced out in considerable detail.

The present instance gives an example of the throwing out of function of a specific, exquisitely isolated chain of neurones underlying the formation of ideas. It appears comparable to the more readily visualized exclusion from function of neuromuscular or neurosensory chains which can also be produced hypnotically or hysterically. Under those conditions we speak of paralysis or anesthesia. The same terms would be applicable to the present conditions except that the neurointellectual system cannot consistently be called either motor or sensory. Its motor or sensory rank depends upon what it is doing in any given instance. However, the terminology we apply to the superficial appearances is less important than knowledge of the fact that one can manipulate a discrete neurone chain, whose function is the pure production of ideas.

But alignment with muscular and sensory phenomena of the intellectual operations shown by this patient is not all that is revealed. We can also discern the actual, neural reality of some of the ideational components of a total idea. When the neural bed which the patient had to use to think of his age, 19, was thrown out of action, the beds needed to think of the two numbers, 1 and 9, were similarly thrown out. This fact shows, in this particular case, the close anatomical association between the neurone beds for the numbers 1 and 9 and the total concepts "nineteen" and "age nineteen." 1 and 9 rested upon two distinct anatomical settings, because 1 returned to function long before 9 did. Under other circumstances a different thing could have happened to the neurone organizations for 1 and 9; they could each have been still able to function, but not to unite into either of the two total ideas "nineteen," or "age nineteen." This would be comparable to conscious inability to synthesize thought, which has been described in a case of right frontal lobe tumor (Brickner, 1959).

In addition the actuality of processes of thought which never reach consciousness is shown. This has been illustrated in another case (Brickner, Rosner, et al., 1940, Case L). To the patient it was never known that the concepts of the two numbers were indispensable components of the concept of his age, all to be manipulated, preserved, or lost together. Thus it is clear that the individual thoughts which served as components for a total thought were never so perceived by the individual harboring them, but were unconscious thoughts, as far as he was concerned. Nonetheless, these same thoughts were available to his consciousness at other times, when they served as total thoughts in themselves (thoughts of 1 or 9 as such) instead of as components of something else. This point supports the hypothesis that, as thinking develops, individual items which are consciously known at first later lose their conscious identity when they combine with other items to form a more complicated unit. Then, the new, more complicated unit is the thing of which one is conscious. Nonetheless the discrete components can still reach consciousness when activated in their old form as complete units in themselves. In this sense they resemble complex muscular movements such as those required to drive an automobile. Although they are consciously and laboriously learned as individual components at first, all that is conscious later is the total combination of them. Yet any one of them can be selected and perfectly executed at any time as a total unit in itself—for example, in demonstrating a single movement to a novice. But that isolated movement must be serving in a total capacity at the time in order to be successful. If each component of, for example, gear shifting is brought to consciousness as an isolated movement while the total act of setting the car in motion is going on, that total act cannot be carried out successfully. Another comparable example is the difficulty encountered in buttoning or unbuttoning when one isolates any one of the various automatic movements and makes it fully conscious.

If we keep in mind these neural interpretations of the phenomena shown by C.L., some suggestions can be derived from the cases mentioned at the beginning of the text. The patient who lost the concept of capital letters when experiencing amnesia for her name and the one who forgot the number representing his age show a situation very similar indeed to that of C. L. With the two who forgot shorthand, the same identical neurophysiological principles would appear to have been involved; however, the material forgotten was of much larger mass, and apparently very large chains of neurones were thrown out of action. The loss of the concept of keys appears to be of the same category, possibly leading to the domain of the concept of symbols. Such cases as these two are illustrative and instructive, but the very complexity of the material for which there was amnesia would blur the point they illustrate, were it not for the clue supplied by a case like that of C.L.

From a clinical standpoint some additional aspects emerge from these observations. Reference is made to the patient's own response to his symptoms. As with all or most other cortical deficits, this patient was unaware of what was missing; he knew only that something was wrong or missing. This is so well seen in cortical deficits resulting in aphasia, hemianopsia, and other disturbances that it requires little comment.

It is also of interest to observe the genesis of projection (the calendar had mistakes in it, etc.), confusion, and anxiety bordering on panic, all as the result of the recognition by the patient that something was wrong with his mind which he could not identify. Although for the purposes of the experiment an explanation was not given to him, it is obvious that these secondary symptoms would have disappeared immediately, if it had been. Equally clear is the diagnostic puzzle such a patient would have presented, had he appeared in the clinic with his secondary symptoms, the origin of them unknown to the physician as well as the patient.

## **SUMMARY**

1. Cases are described, one in detail, in which amnesia for a specific thought or class of thoughts was induced by hypnosis.
2. In all of the cases amnesia was also developed for certain collateral thoughts. This had not been suggested by the hypnotist.
3. A neural interpretation of these observations is given. The nature and functions of what is thought of as the neurointellectual system are further described in the light of these observations.

# **Hypnotic Investigation of Psychosomatic Phenomena: A Controlled Experimental Use of Hypnotic Regression in the Therapy of an Acquired Food Intolerance**

Milton H. Erickson

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Repeated experiences have often demonstrated that hypnotic regression can be used as an effective procedure in the exploration and also therapy of various psychopathological conditions, such as minor disturbances and maladjustments, phobias, amnesias, and even an hysterical depression of psychotic degree (Erickson, 1937, 1939, 1943c; Erickson & Brickner, 1942; Erickson & Kubie, 1941). By such regression is meant the hypnotic reorientation of the subject to an earlier period of life with a revivification of those patterns of behavior belonging to that period and with an amnesia for all experiences subsequent to the suggested age level.

Usually the utilization of regression constitutes only a single, though perhaps major aspect of the total explorative and therapeutic effort, so that no clear determination can be made of the specific role it had in securing the final results. Nor does the psychotherapeutic situation lend itself readily to a rigid control of variables. In the following case report, however, there was an opportunity to deal with an acute, distressing personality problem by means of a controlled experimental procedure intended to test hypnotic regression as possibly the most significant factor in the handling of that problem. Additionally, the subject was not allowed to become aware of any experimental intentions, nor did she realize that the author was even interested in her problem except at the unsatisfactory superficial level of polite but unwilling attention to her request for therapy. Several instances comparable to the following account, one actually centering about the same food intolerance, have also been observed with similar findings, but none in such full detail as the following example.

## **CASE REPORT**

A subject in her early twenties was inordinately fond of orange juice and drank it at every opportunity. One day, because of gastrointestinal distress, she decided to try self-medication and proceeded to take castor oil, first mixing it with orange juice to disguise its taste. Unfortunately this concoction caused acute gastric distress: She became violently nauseated and she vomited repeatedly. Following this she went to bed. The next morning she felt much better and very hungry. She went to the kitchen to get her customary glass of orange juice. Quite unexpectedly she found that the sight, smell, and taste of orange juice caused immediate nausea and vomiting, and she could not drink it.

Instead of making a spontaneous recovery from this acute violent distaste for oranges, she continued to manifest it until it became almost phobic in character. She could not endure the thought of oranges in the refrigerator, and her family had to cease using them. Even the sight of oranges in fruit markets caused her to develop feelings of nausea.

After about a month of such experiences she related the foregoing facts to me and asked how she might "uncondition" herself, and she suggested that hypnosis be used to free her from this problem.

(Additional material making clear the background for the development of such a violent reaction was also revealed to the author. This additional information concerned a highly charged emotional problem which had resolved itself within a few days but without lessening her distaste for orange juice. Since this data bears primarily upon the causative aspects of her difficulty and is not actually relevant to the experimental procedure employed, it will not be reported. Mention of these facts is made so that there can be a ready understanding that an adequate psychological background to account for such violent reactions had existed at the time of the first developments, and still served to maintain her present problem despite the resolution of the original emotional situation.)

In reply to her requests the unhelpful suggestion was offered that it might be better if she were to try to solve her problem entirely through her own efforts. Reluctantly she agreed.

About two weeks later she reported that she had made many efforts to develop control over her reactions by walking past fruit stores, asking her mother to keep oranges and orange juice in the refrigerator, inducing friends to drink orangeade in her presence while she drank lemonade, and even by forcing herself to sip orange juice. All of these efforts, she found, seemed to intensify her tendency to develop nausea and vomiting.

On one occasion I rubbed my fingers well with orange peel and, at a suitable opportunity, held them under her nose. This caused her to develop acute nausea, which, she declared, should force me to believe her story, and she demanded therapeutic hypnotic intervention. Again she was evasively urged to rely upon her own efforts. She consented, but expressed a feeling of resentment over my refusal, pointing out that, on at least three occasions since she had first asked for help from me, I had not hesitated to call upon her to demonstrate hypnosis for my own purposes. Incidentally, in none of these demonstrations was hypnotic regression induced, nor did the subject have access to the records made of those demonstrations, in which only the more common simple hypnotic phenomena were elicited.

Sometime later she reported that she had attended a dinner party at which a salad containing oranges was served. She had immediately pushed the salad aside, but the sight of other guests eating the salad had slowly caused her to develop a nausea that had forced her to leave the table.

About a week later I learned that she had been invited to a social gathering to which I was also invited. Accordingly, I made arrangements with the host, whom I knew intimately,

to serve no drinks or refreshments or to allow these to be in evidence until I so indicated. I also suggested that during the course of the social conversation he was to watch his opportunity to introduce the topic of hypnosis and, if the guests seemed interested, to ask that I demonstrate hypnosis. I also told him that, should I hypnotize somebody, he was to wait until the demonstration was well under way and then, at a given signal from me, he was to declare, in his customary jovial way, that I deserved to be rewarded for my efforts with a special drink that he had invented. In preparing this drink he was to bring out on a tray a glass half full of any drink he wished. Also on the tray was to be a half-dozen or more oranges, a sharp knife, two other glasses, and an orange squeezer. This tray was to be placed on a stand which I would arrange to have in front of my chair. He was then to expound to the group that the final touch in preparing this special cocktail was the adding of freshly squeezed juice from chilled oranges directly to the already mixed ingredients and that the proper technique in drinking was to sip it slowly and to keep adding a little orange juice from time to time. Since it was well known that he delighted in mixing drinks, this task was entirely in accord with his reputation and would not seem to be unusual. Additionally he was told that, as he squeezed the oranges, he was to stack the peels neatly on the tray and to fill both of the empty glasses with orange juice.

Because of our close acquaintanceship no explanation of this eccentric request was necessary, and the host readily consented.

After the party was well begun, the topic of hypnosis was raised spontaneously by one of those present and with seeming reluctance I consented to demonstrate hypnosis if somebody would volunteer to be hypnotized. My subject, however, was obviously unwilling to volunteer, possibly because of her previously expressed resentment, even though since that outburst she had consented to another group demonstration. However, some of those present knew that she had been my subject previously, and they soon persuaded her, as was fully expected.

A trance was readily induced and the more common hypnotic phenomena demonstrated. Shortly in accord with a previous arrangement, the request was made by one of the group that I demonstrate "age regression."

This I proceeded to do by carefully and systematically reorienting my subject to a period of two years before. (For a discussion of the techniques and problems involved in securing such reorientation, see Erickson & Kubie, 1941.)

After the subject had been in this "regressed state" about 20 minutes, during which time she had been extensively questioned by the group, I signaled my host. He responded by declaring that my efforts warranted a special reward—namely, a drink he had recently invented. He went to the kitchen and returned with the tray previously described, which he placed upon the stand directly in front of us. He then proceeded with elaborate explanations to get everything in readiness, squeezing out two full glasses of orange juice. Everybody including my subject watched him with much interest. Finally the drink was handed to me with proper instruction for drinking, and I was invited to pass

judgment upon it. I approved it, complimented my host upon his ability and continued to sip it slowly, replenishing it from time to time with one of the glasses of orange juice.

While this was going on my subject kept glancing furtively at me and at the second glass of orange juice. Very soon a member of the group protested that she had contributed as much as I had and therefore was fully entitled to a drink too. The host embarrassedly expressed his apologies and immediately offered to get her any drink she wished, naming a variety of choices. She replied that if I did not need the second glass of orange juice, she would greatly prefer that. Immediately our host assured her that he could readily secure more orange juice for me before I could possibly need an additional supply and urged her to take the second glass. She promptly accepted the offer and drank the orange juice with such obvious relish that a second glassful was prepared, which she also drank readily.

For some 15 minutes after the drinking of the orange juice the subject was kept busy by the group, who were still trying to fathom the puzzling psychological problem her "regression" behavior constituted.

Following this she was taken into another room out of range of hearing, and an explanation was given to the group that an experiment had been conducted; that it was most important that the subject not be given any inkling of what had occurred during the trance session; and that it would be most desirable if the members of the group would not discuss the events of the evening among themselves for at least a week. To all of this they agreed.

The subject was then recalled, reoriented while still in the trance state to her current chronological status, and thanked courteously for the work she had done. Then indirect suggestions were given to the effect that after awakening she would have little or no interest in what had occurred while she was in the trance, and that she would have a comprehensive amnesia covering the period of time that she had been in a trance.

She was then awakened, and the host very ably provided adequate distraction at once by serving refreshments, from which oranges in any form were excluded. During the rest of the evening the subject's behavior was somewhat remarkable. Her facial expression was frequently puzzled and reflective, and she kept rolling her tongue about her mouth and passing it gently over her lips as if she were trying to sense some elusive taste. Nothing further developed.

Several days later she was seen, and she related at once that she had attended a dinner the previous day at which a mixed fruit salad had been served. Her immediate reaction had been one of disgust and nausea, but she determined to overcome this by carefully sorting out the orange and eating the rest of the fruit. When she had done so, she realized that she had unquestionably eaten fruit flavored with orange juice, and this realization had led her to conclude that, in some unknown way, she had "spontaneously unconditioned" herself. This conclusion she had put to test immediately after her return home, and she then discovered that she had regained her original liking for orange juice.

Indirect inquiries disclosed her to have no understanding of the possible genesis of her "unconditioning," and no attempt was made to give her any information. The whole incident was allowed to close with her believing that she had made a spontaneous recovery and that the author had probably been wise in letting her assume the responsibility for her problem.

## **SUMMARY**

The pertinent facts of this case report may be summarized briefly as follows:

1. The patient, a hypnotic subject, was exceedingly fond of orange juice.
2. She had an acute, highly charged emotional problem, which resolved itself in a few days.
3. She developed, while this emotional problem still existed, an acute gastrointestinal disturbance for which she treated herself by taking a dose of castor oil mixed with orange juice.
4. This concoction nauseated her, and she vomited repeatedly.
5. The next day and thereafter the sight, smell, or even thought of oranges caused nausea and vomiting and phobic reactions.
6. After a month of such experiences she sought hypnotic therapy, which was refused, and she was told to try to correct her problem herself.
7. She continued to act as a hypnotic subject, but developed resentment over the continued refusal of hypnotic therapy.
8. At a social gathering she was induced by others to act as a hypnotic subject
9. During the demonstration hypnotic regression was induced.
10. While in the "regressed state" a prearranged plan culminated in her drinking orange juice.
11. She was reoriented to her current age, comprehensive instructions were given to cause her to develop an amnesia for all trance events, and she was awakened.
12. The subject showed no knowledge of what had happened, but was observed to roll her tongue about her mouth and to pass it over her lips as if trying to detect some elusive puzzling taste.
13. The next day, in a situation which had previously accentuated her symptomatology, she regained her liking for orange juice. This she reported to the author as a "spontaneous cure," nor did she seem to realize that there might be another explanation.

## **DISCUSSION**

Exactly what occurred to effect a therapeutic result is difficult to define despite the experimental controls employed. The patient's own efforts, the resolution of her other problem, the use of hypnosis itself, the patient's resentment over refusal of therapy, and the effects of a social situation are all ruled out by the procedure as ineffective. The one significant item left of the whole experimental procedure is the hypnotic regression, which permitted the patient to drink the orange juice with that pattern of response

belonging to a previous time. Once the orange juice had been swallowed, time was allowed to elapse, and, perhaps unnecessarily, an amnesia for having drunk it was induced. The only significant bit of behavior shown was the patient's attempt to discover subsequently some elusive taste in her mouth. The speculation may be offered that once the orange juice was swallowed, its absorption resulted in various physiological responses not accompanied by her recently acquired emotional reactions. Thus the original pattern of behavior was reinforced sufficiently to permit her to discover successfully that she had "unconditioned" herself. The conclusion seems warranted that the somatic or physiological components of a total psychopathological manifestation can be of great importance.

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# **Experimentally Elicited Salivary and Related Responses to Hypnotic Visual Hallucinations Confirmed by Personality Reactions**

Milton H. Erickson

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Full reliance cannot be placed readily upon the results of experimental studies obtained under conditions in which the subject is aware of what behavior is desired, if such knowledge can possibly aid in manifesting the desired behavior. Especially is this true in experimental hypnotic work, where the transcendence of ordinary waking capacities and the subject's suggestibility and cooperativeness may contribute greatly to a possible vitiation of the experimental findings. In brief, too much care cannot be exercised to insure that the investigative results derive from the experimental situation itself and not from simple cooperation in manifesting behavior in accord with the knowledge of what is expected.

In the following account a report is given of an experimental study in which the subject's initial responses could easily be attributed to an able demonstration of the behavior obviously called for by the situation, and hence their validity is open to question.

Fortunately the events immediately subsequent to the discontinuance of the experiment led to the development of an entirely nonexperimental personal situation for the subject, that permitted, on this new basis, a duplication of the apparently significant results of the experimental procedure. Thus there were secured further findings, confirmatory of the experimental data, which derived from personal and social reactions to a general situation and which were expressive of the subject's efforts to satisfy her personality needs rather than to cooperate with experimental objectives. Additionally, these further findings serve to demonstrate effectively the reality for the subject of the original experimental situation, which in itself is a most important consideration in this type of experimentation. Thus, the unplanned and unanticipated developments arising from the experimental procedure served to confirm both the results obtained and the validity of the procedure itself.

## CASE REPORT

One evening, during a hypnotic demonstration in the author's home before a group of professionals who had not witnessed hypnosis before, several members of the audience were used as demonstration subjects. One of these was called upon to demonstrate the somnambulistic state, and at the conclusion of her task but while she was still in the trance state she was thanked for her work. A member of the audience remarked humorously that the simple thanks were not enough, that she was entitled to a substantial reward. The author agreed at once and, knowing her great fondness for candy, stated that

as a reward she could have first choice from a platter of homemade candy that had been provided for the evening. The subject was then asked what her favorite homemade candy was, and the polite hope was expressed that it was actually included in the varieties that had been prepared. The subject, still in the somnambulistic state, expressed a marked preference for divinity fudge, and even as she spoke she was noted to salivate freely in anticipation. The salivation was observed independently by several of the medically trained persons present. Stepping into the next room as if to check, the author called back with an expression of satisfaction that there was divinity fudge, and she was told that as her reward she could help herself freely. Then she was asked if she wished the candy served at once or later. She replied smilingly, "So far as divinity fudge is concerned, immediately is scarcely soon enough."

She was taken at her word, and without any attempt to awaken her the author stepped into the room bringing napkins and acting as if he were carrying a platter of candy, explaining with social cheerfulness that he hoped for a variety in appetites since there was a variety of homemade candies. Stepping over to the subject, the author told her that in return for her services she was to be served first, and that properly, as her just due, she was to select the largest pieces of divinity fudge.

With the juvenile directness, earnestness, and simplicity so characteristic of behavior in the somnabulistic state, she replied that she would. After scrutinizing the imaginary platter carefully, she made her choice of a piece and, upon urging, a second and a third, but she explained that she was taking only a small piece for the third.

The imaginary platter was then carefully passed to all of the group, each of whom went through the pretense of taking and eating candy. The medically trained members unobtrusively watched the subject, and all agreed upon her increased salivation and were much amused to see her use the napkin on her fingers after eating, an act that the group duplicated.

When all had been served with the imaginary candy, the act of placing the platter on the table, fortunately on the far side of the room, was carried out, and the subject was allowed to continue in the somnambulistic state.

One of the other subjects mentioned that she would like to be hypnotized and induced to do automatic writing, a task in which she was interested but had previously failed.

Accordingly she was rehypnotized, but when an attempt was made to have her write, she explained that she was having difficulty in writing satisfactorily while holding the paper in her lap. Meanwhile the first subject became disinterested in the proceedings and restless and finally reacted to the situation by offering the use of her chair since it had arms which could be used as a support for the paper. Her offer was accepted and she relinquished the chair, but instead of taking another, she began to wander about the room aimlessly, looking at the books in the bookcases, to some extent repeating the somnabulistic behavior previously asked of her. This soon brought her beside the table where the imaginary platter had been placed. Soon she seated herself in the chair which

happened to be there. In the meantime two of the medically trained members of the group had been instructed to watch her closely but unobtrusively, since the author was busy with the other subject and wished to be kept informed of her behavior.

Shortly she was observed to look at the table and then to turn hesitantly toward the author, whom she found to be absorbed in his work with the other subject.

After some hesitation and in the manner of a small child who wishes another helping of candy, she kept looking furtively and uncertainly first at the author and then at the imaginary platter. Finally, with a slight gesture of resolution she leaned forward, scrutinized the platter carefully, and proceeded to go through a performance of selecting carefully and eating several pieces of candy, now and then glancing in a hesitant, semiembarrassed fashion toward the author, who continued to be busy. The two medically trained observers agreed independently in their observations when questioned about the validity of her performance, and both emphasized the increased salivation and swallowing the subject manifested. Carefully veiled glances by the author made him aware of what was occurring.

At the conclusion of the automatic writing the author expressed his intention of passing the candy again, suiting action to the word. As it was passed to the first subject, she remarked unnecessarily, "I believe I will, but this time I'll take another kind since I like chocolate fudge too." Again she gave what appeared to be a valid performance of eating candy with proper salivation and deglutition.

Shortly the demonstration was concluded. All subjects were awakened and refreshments were served.

## **DISCUSSION**

Since the subject's physiological responses in the experimental situation presented nothing unusual, discussion will be limited to the significances of the subject's post experimental spontaneous behavior.

In the initial situation the subject could conceivably have behaved in simple accord with the experimental demands. When, however, the experiment was concluded and the subject had been displaced from her position of central interest for the group, her reactions of disinterest, boredom, restlessness, and possibly jealousy were quite understandable. Thus there could and obviously did arise within her a need for some form of satisfaction, a need which could be satisfied by something possessing reality values for her. Hence the original choice of candy as an hallucinatory reward had been fortunate, since it was in keeping not only with the preceding experimental situation but actually with her well-established habitual practice of keeping a supply of candy available. Consequently, when she found herself beside the table where the hallucinatory candy had been placed, there was then an opportunity for her to satisfy personality needs in a well-accustomed way if that hallucinatory candy possessed any reality values for her. That it did possess such values and was not an experimental pretense was evident from her

furtive behavior, her guilt reactions, and her overcompensatory remark about chocolate fudge as well as from her salivation and related behavior. Thus in a significant nonexperimental situation the subject confirmed her experimental behavior.

Additionally, these findings suggest the informativeness of clinical developments from an experimental procedure as a possible technique for indirect experimentation in situations where a subject's knowledge of experimental objectives constitutes an important variable, and, likewise they suggest the desirability of so *devising experimental procedures that they fit the personality structure of the subject*.

# **Control of Physiological Functions by Hypnosis**

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My topic for this afternoon is "Control of Physiological Functions by Hypnosis." I am also listed later for "Hypnotic Approaches to Therapy." Actually, I have the feeling that it is rather a difficult separation to make, because in any approach to physiological control one also makes use of therapeutic approaches. I am not therefore going to attempt to make a differentiation or to give you a set lecture on the subject. Both topics involve a question of techniques, and they are both concerned with the adequate functioning of the individual as a personality and his functioning in a desired manner. Therefore the two presentations will be separate but will overlap, although I shall try to place emphasis accordingly.

It must be borne in mind that one's appreciation and understanding of the normal or the usual is requisite for any understanding of the abnormal or the unusual. Just as a knowledge of normal physiology constitutes a background for a knowledge and an understanding of pathological conditions, similarly a knowledge of the approach to an understanding of normal physiology constitutes a means of approaching an understanding of abnormal physiology. Any approach to either must be based upon a knowledge of techniques, perhaps fundamental in character but varying according to the conditions. I want to amplify that. When I say "varying according to the conditions," I mean according to the personality of the individual, the psychological situation at that particular time, and the psychological situation of the hypnotist as well as of the patient or the subject. One simply cannot handle those things without having an understanding of all of them at the time.

Since I am a psychiatrist as well as a psychologist—I am primarily engaged in psychiatric practice—I shall rely chiefly upon my experience as a psychiatrist. I am going to try to avoid, as much as possible, any reference to my previous publications. Those are available to you, and it would only be using up your time to keep referring to them, but I shall occasionally make reference.

First I shall consider the matter of physiological functions and the control of them. I don't think that is a problem that should be taken too lightly. I've seen a person in the laboratory with his hands in the plethysmograph and told in the hypnotic trance, "Make your right hand smaller and your left hand larger," and have seen excellent results in the hypnotic trance because the blood vessels shrank in one hand and dilated in the other. That seems to be an excellent demonstration of the proof of the possibility that hypnotic measures are bringing about physiological changes. When I questioned the subject,

however, his statement was, "I can do that without being in a trance." He very neatly and carefully demonstrated it. What was his way of doing it? The man had a very vivid imagination. He thought about holding ice in one hand and getting his arm very, very cold. He thought of the other hand being in warm water. Naturally vasomotor changes took place, and the hypnosis had nothing to do with it.

I've seen subjects who would dilate the pupil of one eye and contract the pupil of the other in hypnotic trance, when looking at the same light. My question, however, is, "Can this be done at will without the presence of the trance state?" I have seen people who were not in a hypnotic trance who could look at a light and dilate one pupil and contract the other. It was a matter of personal, voluntary control of physiological functions.

The anesthesias that you can develop in hypnosis, I have seen occur in the ordinary state. When I was working my way through college, a workman offered to stick pins into his skin with no pain reactions. I had enough knowledge of psychology at the time to know something about pupillary contractions with pain reaction. He would stick the pins through the skin of his legs, through his cheek, and so on for a package of cigarettes; and the chap didn't need hypnosis to do it. I am always therefore exceedingly suspicious.

I remember one carefully controlled experiment in inducing blisters on the arm by a friend of mine in the army. He wrote me that he kept the subject under absolute observation for 24 hours, and the man produced the blister in the area drawn on his arm—with a pencil. My first question was "Was he kept under observation for 24 hours?"

"He was."

I was extremely specific about it. How many times a day did the man go to the lavatory? Who went with him, and who watched him? The man had some cigarettes concealed, he lit a cigarette, and he produced his blister, but it wasn't hypnotic in origin; 24-hour observation means 24 hours and four minutes per day to be scientifically accurate.

Another item is the question, How do you define normal physiological reactions? How much do you know about them? How can you decide what is normal and what is induced? I think one of the best tests you can set up is the production of perspiration. Place a subject in a nice cool room and talk with your subject about various topics so that you are sure there is no sign of perspiration. For example, last week one of my patients was commenting on how cool my office was and how comfortable he was. We talked about various subjects, and my purpose in talking to him was to see if I could produce a sudden flow of perspiration. He was comfortable, at ease—decidedly at ease—and we were talking about his home town, whom he knew, and so on. I threw in a casual question about a relative of his wife. Immediately he drew out his handkerchief and started wiping the perspiration. I had obtained the name of the relative of the wife from a letter the wife had written me. The patient wiped his brow and said, "What happened? Has the cooler been turned off? It seems awfully warm."

I said "It's probably some reaction that you've had. Never mind."

We continued discussing and talking about a trip that the relative made. I then commented that I had heard his name mentioned at luncheon that day by Dr. Stafford Ackerley. I mentioned Louisville, Kentucky, and that Dr. Stafford Ackerley lives there. Immediately he started perspiring, and he wondered why. I knew why. His wife's letter had given me the information that informed me why he should perspire at the mere mention of Louisville, Kentucky, and the mention of his wife's relative.

I think that kind of physiological control is much more reliable than when you try to have subjects increase their heartbeat or their blood pressure or something of a similar nature. One of my subjects could increase his pulse rate by ten points if requested to do it. I also found out that he could do it in the ordinary waking state at the request of a friend of mine whom he didn't know was a friend of mine. He could increase it 20 points, within a range of error of one to three points. He could increase his blood pressure, and hypnosis had nothing to do with it. He fantasized walking up a certain hill, and that would raise his pulse rate a certain amount. He could fantasy running up that hill-really fantasy it very vividly—and increase it 20 points. He could raise his blood pressure by a very simple mechanism, that of contracting his abdominal muscles, which you didn't notice ordinarily under his clothes. It was beautifully done, but he himself was not aware that he was doing it.

I placed him in a hospital bed, checked on the increase in blood pressure, and had a nurse check on his abdominal musculature at the time. He thought she was giving him a message, but she was actually checking his muscles. He had a skin condition that made the procedure seem appropriate. He could really raise his blood pressure by the very simple means of contracting his abdominal musculature.

You may know that during insurance examinations patients will become terribly tense, their muscles will tighten up, and as a result their blood pressure goes up. Often after the conclusion of a physical examination blood pressure when taken again will be lower by 20 points or even 40 points because the tension has gone. Any physiological manifestation that you can produce in the ordinary waking state should not be credited to hypnotic suggestion.

I have had subjects who would raise their blood pressure and increase their rate of perspiration by thinking about situations that produce anger. Watching Lester Beck's film this afternoon, I thought about subjects who had made use of a similar situation by recalling deliberately a past traumatic experience that put them in a cold sweat and altered their blood pressure. That isn't hypnotic suggestion; that's normal physiological behavior.

I think the most valid physiological changes—that is, changes in physiological function—are those that are brought about by unconscious processes. I think mentioning Louisville, Kentucky, and this chap named Gene from Alabama was a much more valid measure of producing a physiological change than any direct effort. In fact it is my feeling that in hypnotic research one should resort to indirect method as much as possible

to keep the subject from ever cooperating with you intentionally and complacently to give you the desired results.

The following will illustrate the point. A brilliant GI student was failing badly in all courses. One night he leaped downstairs to join a beer party. Two weeks later he came to the Veterans Administration with which I was associated for an examination. He tired much too easily; he was worried about his heart; and examination soon disclosed that he had a "stocking anesthesia," or complete numbness of both feet. I examined his feet and made my own diagnosis: he had fractured bones in both feet. I had another physician check him over, and he also reached the same conclusion. So we looked up the X-ray man and explained to him what we wanted done. I gave this GI student a very nice talk about this skin condition, the swelling of the skin of his feet, and told him that I was going to have the X-ray man give him a skin treatment. The X-ray man was most cooperative, so we obtained an X-ray that verified the fracture of the bones of the feet. But that stocking anesthesia was a very, very important thing. In investigating his past history we found out that he had a personality collapse if he cut his finger or if he nicked himself in shaving. He was practically laid up for a day or so from a razor nick. He was the type of person who just simply collapsed at the slightest physical injury. His discharge from the army was a medical one, based on that, and yet here was a man who had been walking around on badly fractured bones in his feet for two weeks.

Eventually he produced a certain change in himself that enabled him really to attend classes. What I did was to put him in a trance and give him a long, deceptive story about the skin disease and my worry about it, and that the treatment was medicated gauze protected by a cast with iron supports in it so that he could walk around. He attended classes and progressed well. The result was that I accepted that particular physiological condition, didn't try to correct it, but merely gave him a certain type of invalidism from which he didn't have to collapse. He made A's in all of his courses, as he should have done, for he was a brilliant chap.

In discussing the numbness of his feet and the skin condition in the trance state, I gave him an overwhelming urge to want to enjoy it and to preserve it until the medicated gauze had healed it completely, so that as his feet healed and a new sensation in his feet developed, he would not have to drop out of school and become an irascible invalid. Had he been told that he had broken bones, he would have been in bed and thoroughly incapacitated.

Another patient in her thirties with an irregular menstrual cycle presented a similar problem. Each period resulted in daily severe headaches, vomiting, gastrointestinal disturbances, and actual invalidism for five days; no invalidism the first day and no invalidism the last day. She wanted medical help, but she did not want psychotherapy. However, she consented to go into a trance to please me. I was perfectly willing to be pleased. A deep trance was induced in her, and she was instructed that on any Saturday night she chose she would have a dream in which she would telescope time. In the dream she would experience a whole week's menstrual invalidism; that is, the dream would seem to last five whole days. She would be invalidated, she would dream that she was

vomiting, having diarrhea, cramps, and everything else that went with her past history; but that she would sleep soundly and wake up the next morning rested, refreshed, and energetic. Moreover, she would awake with an amnesia for the dream experience, and the dream experience itself would result in a satisfactory menstrual period later.

Two weeks later she was surprised to find herself menstruating without any difficulty, without an invalidism, with no pain, no discomfort. She came to me and asked—me what I had done, what had happened. She had had a lifelong experience of having painful menstruation, and here she was feeling like a queen—perfectly comfortable, perfectly at ease. Why didn't she have cramps? What was wrong? In the trance state she knew exactly what I had done, but consciously she had no awareness whatsoever of it. Since then, and that was several years ago, she has had no painful menstrual periods whatsoever. Everything has gone along perfectly all right. She is regular in her menstruation and has no pain, no discomfort, no distress. I think that she can readily come under the heading of controlled physiological functioning. The measure was indirect, but the history certainly warrants the belief that if I hadn't done that sort of thing, she would have continued to have painful menstrual periods.

Our third example is that of a normal 18-year-old girl who had not shown any evidence of breast development. She was very much distressed. Her father was a physician, and when she was 12 years old he had loaded her up with every kind of hormone imaginable. No breast development of any sort occurred. This was continued for three more years but was then terminated. At 18 she was making an extremely schizoid adjustment, withdrawing completely. She has an extremely disagreeable, unpleasant mother whom she hated thoroughly. Her doctor-father brought her to me and asked "What can you do to keep my daughter from becoming schizophrenic?"

It took about an hour to get the girl to tell me that she didn't have any breast development whatsoever. She did agree, however, to go into a trance. So I spent another couple of hours putting her into a trance, very cautiously and very indirectly, until she was in a deep trance. While she was in that deep trance, I explained to her how ignorant a man is about what a breast feels like; that he can't have any idea how it feels to grow a breast; that he can't know what a breast feels like during the menstrual period; that he cannot know what a woman's nipple feels like during menstruation. I spent a great deal of time stating very repetitiously that since she was a girl somehow or other she must have the right nerves, the right blood vessels. I showed her pictures of anatomy showing the difference between the vascular distribution of the chest of the male and the female, and explained that she did have the background for breast development. I told her what I wanted from her was a complete amnesia for everything I had said to her in the trance state; but when she was alone in the privacy of her room, especially at night, where her mother would not annoy her—because her mother was very rigid about sleeping in a certain part of the house—she would some way, somehow, get a tremendous surging feeling in the breast area; that some way, somehow, the rudimentary nipples would feel warm, and that she would have the feeling that something was happening. I told her very honestly I didn't know what that feeling was, but that she could find out, and that she

would do that and that she would get that tremendous surging feeling, growing feeling—whatever it was—and drift off to sleep very comfortably.

Another thing I added to that was to show her how I put my hand on my shoulder, and then point out that when a woman does it she does not touch her shoulder with her arm in direct contact with her chest but raises it with her elbow slightly about the breast area as she puts her hand to her shoulder. I told her that she would have a tremendous unconscious need to put her hand on her shoulder in that fashion, but she wouldn't be aware of it. Sometime during the course of the day or perhaps the evening, if she happened to get a mosquito bite on her shoulder or an itch, she would unconsciously raise her elbow, and within the course of the next few weeks she would have the thorough conviction that she was growing breasts—really growing breasts.

I saw her once a week. Usually we talked it over and usually I put her in a trance and said "We've discussed this matter before. I'm just reminding you that we have discussed it. Why should we talk about it any more? I just want you to know that we've really discussed it, and that you're really going to try out all my instructions—even though I don't know what I've instructed you to do."

I saw her once a week for two months, at the end of which time she had very well-developed breasts. In the trance state she told me she had them and wanted to know if I wished to examine them to see if they were real. I told her no, it wasn't necessary, that she would do all of that examining and that she could be much more critical of them than I would be; that they belonged to her and that she should reserve to herself the right to criticize her breasts.

I ceased seeing her at the end of two months, but three months later she came back and said "Dr. Erickson, I came to see you quite a while ago. I was awfully withdrawn. I liked to sit in corners and hide behind the piano, and I avoided company. I just wanted to report to you that I don't do that any more. I'm dating regularly."

Her father, the medical man, came to me and asked "What hormones did you use?"

I told him I was a variation of a Christian Scientist, that I healed from a distance.

What did I do to that girl? I think that I brought about a change in physiological functioning. I certainly produced tremendous changes in her. She has well-developed breasts, she is very proud of herself, her schizoid state has been corrected, and I have her father's statement that he himself has examined those breasts and that they are perfectly good breasts. Moreover I have the word of a number of young men who said they would really like to examine the breasts.

How great a part did raising the elbow play in it? How much did the idea of a surging feeling in the chest wall have to do with it? There's nothing more vague, really. Yet she had had hormone therapy, discontinued several years before; she had menstruated regularly since the age of 13. She just hadn't developed breasts. Yet in two-months' time,

I think it is reasonable to assume, my suggestion brought about in her a control of physiological functioning.

Another case that I want to cite concerns a young man who had married an exceedingly attractive girl. His weight was 170 pounds. Nine months later he came in to see me weighing 120 pounds. He said he couldn't stand it any longer and wanted to have a psychiatric interview. His story was very simple. It was to this effect: "Every time I try to consummate my marriage my bride goes into a hysterical panic. It's just driving me crazy, and I can't take it much longer. I lie awake nights wondering how to please her. Every night she promises me, and every night she throws a hysterical panic."

I told him to bring his wife in to see me and to have her bring every bit of information that she could about her menstrual cycle. The astonishing thing was that she had started to menstruate at the age of 11 and that she had kept a diary all those years. She was 19 at the time. She menstruated regularly every 33<sup>rd</sup> day, according to that diary. Usually she began to menstruate between 10:00 and 11:00 A.M. When I looked through her diary, I began to wonder about her personality and to understand more about her panic reactions. I understood how she must have felt when her husband wanted to consummate the marriage. She had a seven-day period.

I had an interview with her husband, and then I had an interview with her in which I made a rather serious mistake. I discussed sex relations with her and I laid down the law to her thoroughly. Both of them were seen together, and they were instructed to consummate the marriage that night as soon as they got home. It was seventeen days before the next period. They lived two miles from my office. Halfway home she started to menstruate.

That kind of reaction medically is not too uncommon. An unexpected early menstruation to avoid consummation of marriage, or the failure of menstruation because of desired pregnancy, takes place fairly often. However, this girl with a long history, verified by her diary that she had kept, had her menstrual period that night about 8:00 P.M., seventeen days ahead of time.

She had a normal period, and when she came back at the end of the period, I apologized very greatly for my error, my mistake, my failure really to understand. I was right in that, because I had failed to understand. I told her that she and her husband should consummate their marriage, that they should do it on

Saturday night, or Sunday night, or Monday, or Tuesday, or Wednesday, or Thursday—I would prefer *Friday*, or Saturday, or Sunday, or Monday; but I would prefer *Friday*. I repeated that several times, just to drive home a point that she couldn't possibly recognize.

Of course, nothing happened Saturday night, or Sunday night, or Monday night, or Tuesday night, or Wednesday night. Thursday is very close to Friday night, and she had already demonstrated that I couldn't dictate anything to her. When I said I preferred

Friday, and it was Wednesday night and nothing happened, she had no choice because I already mentioned Saturday and Sunday too.

They consummated the marriage; they have two nice children, and they are happily married now. Her husband reported that since nothing happened Saturday, Monday, Tuesday, Wednesday—that he was beginning to get sick of me and thought that he should see some other psychiatrist who might be some good. However, on Thursday night he was taken by surprise.

One could make various ribald comments here, but it led to a happy marriage, regular sex relations, and the enjoyment of sex relations. She had taken the initiative, and she had placed so much emphasis upon sex since the age of 11 that she had kept a monthly diary of her menstrual period. So again I think I interfered with, or altered, or changed physiological functioning.

I want to stress the emphasis that I placed upon *my* preference for Friday. I had no right to express any preference whatsoever. I think that in hypnotherapy and in experimental work with subjects you have no right to express a preference; it is a cooperative venture of some sort, and the personality of the subject or the patient is the thing of primary importance. What hypnotists or therapists think, or do, or feel is not the important thing; but what can they do to enable the subject or the patient to accomplish certain things is important. It's the personality involved and the willingness of the therapist or the hypnotist to let the subject's personality play a significant role.

Another area of control of physiological functioning concerns the knee-jerk. A lot of people can inhibit the knee jerk—that we know physiologically—and can do a perfectly beautiful job of it. A naive person who has never studied physiology can control the knee-jerk so that it is not exhibited. However, there's one thing the naive person doesn't know, and that is the item of summation of nerve impulses. I remember a patient of mine to whom I had given anesthesia of the legs! I brought in a professor of physiology to see him because he couldn't walk. The physiologist said that the knee-jerk is a spinal reflex, and you cannot interfere with it. A very careful examination was made and checked by another professor of physiology. The knee-jerk was tested. There was no contraction of the muscles, no apparent inhibition. Then the physiologist said, "Well, apparently there is an inhibition of nerve impulses. There's one other test that should be tried." He tried the phenomenon of summation.

If he timed the blows correctly, 13 or 14 rapid, properly timed blows resulted in a kick; otherwise there was no knee-jerk. In other words the synapses had been separated in some way so that anesthesia was present. I know that Sears has done his work on anesthesia and the psychogalvanometer. What do you do to test anesthesia or a functional loss at a psychological level? You want to produce psychological deafness that's real, so you render a subject hypnotically deaf. But the test isn't the fact that subjects show you that they're deaf and don't hear anything. Do they make any responses to sound that are unexpected? For example, you can ride on a bus, and as you look at the people sitting in the seats ahead of you, you notice that so-and-so doesn't turn his head at the honk of a

horn. Why? You notice further that he still doesn't turn his head at the sound of another car horn. You begin to question his ability to hear.

In psychological deafness hypnotically induced I think one of the neatest and meanest trick of all is to render somebody hypnotically deaf and then tell him a whole series of riddles, stories, jokes; and when the hand is palm up, he hears, and when the palm is down, he can't hear.

I've done that with cases of psychological deafness. I've given them a series of 500 articles, palm up and palm down, and if you try to sort them out in your memory, you find it almost impossible. When you test the subjects indirectly for the items you said when your palm was up and for those you said when your palm was down, they remember the items when your palm was up, but they can't remember those said when your palm was down. Think how very, very difficult it would be for any one of you, listening to several people sitting here conversing, later to be asked what was said in that conversation and who said it. It would be very confusing. Your hypnotically deaf person can actually do that. Selective deafness? Yes. Is it because they select out the things that they are not going to hear, or is it that their hearing depends upon certain other things?

I think one of the best examples I can give of that is my son Robert a couple of years ago. We served a new dish at the table. He took a mouthful, tasted it, was uncertain. He closed his eyes and took another mouthful. He was still uncertain. He held his nose and took another mouthful. He tasted it; then he sat down on the floor and tasted it. It was good, just as he'd suspected in the first place, but he wasn't sure of it. In psychological deafness hypnotically induced how many other things enter into hearing? When a speaker speaks in a low tone of voice, what is the tendency but to close the eyes and listen so as not to be distracted. What does hypnotic deafness do but interfere with certain other functions that interfere with the hearing process?

Another item in the array of physiological controls is the matter of delayed menstruation. One week I had two cases come in to me of delayed menstruation. The patients were frightfully worried about it, terribly distressed, and they wanted to be certain that everything was all right. Hypnotically, what did I do? I avoided the question entirely, and I think I should have because I wanted to relieve the minds of those two women. I suggested to them that it would be very, very nice if they went on a swimming party next Saturday, and I built up that swimming party into a gala event, a wonderful experience. I did everything I could to drag together all of their childhood happy memories about going swimming, all the happy times they ever had swimming. Then I suggested that they would definitely go to a certain swimming pool in Phoenix, go swimming, and recapture all the joys of their childhood, girlhood, and young womanhood that they ever knew when they went swimming. After I had built that up very, very carefully, I put into their minds the fear that they might menstruate that night.

That may have been a mean trick, but what was my problem? It was to correct a rather serious fear. The result was that both girls menstruated before Saturday night. They missed the swimming experience.

Another technique I have used in that same measure: A girl or a woman comes to me and says she's missed her period. She's never done it before in her life, and she's very worried. You get her menstrual history and find she was always regular as clockwork, and you raise the question, "Have you got a Kotex with you? Would you mind going and putting it on—just in case?" Then you have her sit down in the office, and you have her explain to you in detail all the sensations she ever has had about menstruating. She'll tell you how her breasts feel, how the nipples feel, about the ache in her shoulders, the congestion in her back—innumerable things peculiar to the individual. I have had more than one woman start menstruating in the office! Why? Because I had built up that picture of what menstrual feelings really were so strongly that her body had to respond in that particular way.

Now I want to cite another case, that of a young man 30 years old. He came to me as a patient, and he didn't want to be my patient because he didn't want it known or even suspected that he was going to a psychiatrist. In his work he had to enter a certain tall building and had to take the elevator up to the seventh floor. It was a rapidly moving elevator; friends of his got on that elevator. He usually fainted when he entered the building, or he fainted in front of the elevator, or when he got into the elevator he fainted. It was a very distressing thing, and he didn't like it. Could I do something about it? What I did was very simple. He was an excellent hypnotic subject, and I agreed that I wouldn't be a psychiatrist but just an ordinary hypnotist. I put him in a trance, and in the trance state I asked him to describe to me not the feeling of the elevator going up but the feelings he had when the elevator came down. He never fainted, his history disclosed, when the elevator came down—he was so relieved and so thankful that he was going to get out of that building. So he described it to me over and over again, the somatic sensations that he experienced going down. I told him that the next time he entered that building it would be impossible for him to think of anything except the peculiar, pleasant, comfortable feeling of going down in an elevator. He hasn't fainted since. Why should he?

The cause of his fainting, I have since learned—because he finally decided it would be perfectly all right to be the patient of a psychiatrist—was a conflict in his home.

I do not know whether you would put fainting under the heading of controlled physiological functions, but I think it belongs there because it is a failure of function in a certain sense of the word.

Not long ago a dentist called me up and said that he was really distressed. He had hired the perfect assistant—and I think when a dentist finds a perfect assistant he has found something. She had one fault. Every time she saw a bloody tooth she fell flat on her face in a faint, and he became tired of picking her up off the floor and reviving her. His question was "Can you do something about the girl?" I told him I was perfectly willing to try.

The girl came to my office and said, "You're a psychiatrist and you're a hypnotist. I want it distinctly understood that I don't want psychiatric treatment. I want hypnotic treatment, and I want to get control of myself so that I don't fall down flat on my face every time I see a bloody dish or a bloody tooth or something of that kind. Several times I've had a nosebleed as a result, and fainted again."

What did I do for the girl? The treatment I used should be described in my next lecture because it concerns a technique, a therapeutic approach. I merely had the girl describe her problem and then told her to go into a deep trance. She went into a very nice deep somnambulistic trance. I told her that I was tired, and would she mind if I smoked a cigarette. She agreeably told me to go ahead and smoke. I told her while I was smoking the cigarette that I wanted her to review everything that was traumatic or connected with blood or fear of fainting, and to review it in her mind, and to review it without having any awareness of what she was reviewing. It was just to flash through her mind like a thought flashes through your mind. You see a person on the street and the thought flashes, "I know that person," or "Wait a minute. What was that I was going to say?" She was to have that same sort of reaction. She agreed that she would do that. So for the next 20 seconds I smoked a cigarette and let her do that. I awakened her and we chatted about the dentist, Phoenix in general, this and that, and then I told her my bill.

"Well," she said, "you haven't done anything for me. Don't you think that's pretty steep?"

I agreed with her that it was. Well, then, I *should* have done something for her. There was no question about it: if I charged a fee like that, I should have done something for her. We went round and round on that point. I really should have done something for her. Of course, the girl didn't realize that was in itself a posthypnotic suggestion. She left the office rather discontentedly. She hasn't fainted since.

The next morning the dentist handed her a tray full of teeth—she took it, dumped out the teeth, washed out the tray, brought it back to him, and she said "Why I didn't faint! What's the matter with me?"

He said "I don't know, but that's right."

Now what did I accomplish there? Physiologically speaking, in a very short period of time, which I shall take up in my next lecture, I induced a rapid process of thinking concerning blood, trauma, injuries—all those things had passed through her mind while apparently I was smoking. I interrupted that and just emphasized that my fee indicated that I *should* have done something for her. And that was the thing that really convinced her. I *should have!* She walked out in about 10 minutes' time. Nine minutes, about, were spent in inducing the deep trance, then about 10 to 20 seconds in letting her review distressing times, then awakening her and emphasizing by my fee that I should have done something for her. What could the girl do except alter her vasomotor behavior? How I did it, I don't know. Neither does she. We're all very ignorant on that subject.

One of the things in physiological control in which I am tremendously interested is unilateral visual changes and unilateral auditory changes. I haven't done any of that yet; I haven't had the apparatus. I think that would be one of the most interesting and the most startling things that could be done. Using a stethoscope, one side of which has been plugged up but the patient doesn't know it, you could really "go to town on him" in hypnotic deafness in one ear. At the University of Michigan they have an apparatus that I was going to use in which, by the use of mirrors, you can look through and see what you thought you saw with your right eye you were really seeing with your left eye. That would be a wonderful thing to do, and I hope that some day somebody is going to do that. In that sort of experimentation, just to try to induce blindness by telling a subject, "You're getting blinder by the moment"—I don't think that that is the right way of proceeding because it isn't quite fair.

To produce physiological changes one ought to go about it with the realization that those physiological changes occur in the total body and in relationship to the total psychological picture that exists at the time. I don't like to tell a person that he is becoming blind, that he's not going to be able to see, because he too easily and too readily cooperates with me. I'm not going to get a valid picture until a person becomes deaf and can cooperate with me and simply ignore sounds. What I try to do is to build up the picture first. How does a deaf man sit in a chair? Just how? We go into that in great detail, because a deaf man sits differently than one who is in full control of his hearing. You very carefully build up that certain muscular rigidity, that certain lack of response to extraneous sounds. You build that up and built it up, and then you call attention to the fact that certain sounds that are close by, you hear with a certain quality, and sounds more distant you hear with another quality, and sounds remote you hear with still another quality. You get that idea across to them very carefully until they begin to appreciate that deafness isn't just a closing down, but is a matter of circumscribing, circumscribing, bit by bit, until finally the subject begins to look at your face and study your lips.

"You spoke, didn't you? I didn't quite hear you. Do you mind speaking louder?"

You take a deep breath and speak a little bit softer. He looks at you again. "You'll have to speak louder." You merely shift your position, your attitude, and you lean forward. The first thing the subject knows, he is convinced, and he starts leaning forward, and he starts cupping his ear. Why shouldn't he? You want psychological deafness and you want it to be very genuine.

Similarly with blindness, you use the same technique. The direct technique I don't think is very satisfactory, because the subject can fake it so well. What you want to do is give the idea with every action that the light is poor or failing . . . "Will you look please? Because it's come back on again." Just give that suggestion by your total behavior. You test out the switch on the wall to see if the light is really on. You go through all manner of suggestive behavior. You then raise the question "how would you act if you were blind?" What sort of groping movement, for example, should I make if I were blind and reaching for this notebook? I can't do it very well because I'm not blind. I'd have to learn. Serious-minded subjects will take that as a very definite project, and the first thing

they know they have built up a generalized pattern of behavior. How much do your arm movements, your foot movements, your shoulder movements, your head posture, the way you bend your neck enter into your vision, your hearing, your speech?

For example, suppose you are walking behind somebody who has on a brand-new suit. You don't know who it is until he starts talking to somebody in front of him. You recognize the characteristic head movements. You know who it is, not because you heard the voice, but because you unwittingly recognized the characteristic head movements which in the past you learned to relate to that person but never differentiated from his voice.

We use soundproof rooms for that sort of thing. I know at Menninger's Clinic they use soundproof rooms, and that question came up while I was instructing there. They brought in a number of people that I knew, differently dressed, and had cautioned these people to keep their hands beside them. Their heads were very carefully draped, very tightly draped, so that I couldn't even see the color of their hair, or get a look at a profile, or anything of that sort. I had them start talking. All I did was watch for characteristic head movements while they talked, and I identified the people in my soundproof room.

In the control of physiological functioning I think it is tremendously important to pay attention to all of the little things that enter into physiological functioning. Consider the idea that speech comes from the mouth. It doesn't come just from the mouth: the neck is involved, respiration is involved, the shoulder movements are involved, and the tension of the hands is involved. Everything is involved. Once you start that pattern, you can learn a great deal about it. But to isolate it, as so many psychologists do, as a single unitary thing, I think is wrong experimentally; because you're dealing with a human being who is a physical creature and a psychological creature who is a personality responding to you and to the room in which you are. Lecturing in a totally dark room is one thing. Lecturing in a room with windows is an entirely different thing. Your behavior is going to be entirely different, no matter how interested you are in giving the lecture to the group. Hence when I try to induce physiological changes, I try to start at the beginning; that is, as far as I personally can understand the beginning of those things. I try to build it up, to build it up in such a general fashion that my subjects or my patients can translate it into their own experiential life.

# **Hypnotic Alteration of Blood Flow: An Experiment Comparing Waking and Hypnotic Responsiveness**

Milton H. Erickson

Unpublished paper presented at the American Society of Clinical Hypnosis Annual Meeting, 1958.

In medicine, dentistry, or psychology, the primary purpose served in the experimental and clinical use of hypnosis is the communication of ideas and understandings for the purpose of eliciting responsive behavior at both psychological and physiological levels. This responsive behavior differs significantly from seemingly comparable behavior elicited in the ordinary waking state. This difference between hypnotic and waking responsive behavior derives from the actual but easily overlooked dissimilarity between their reality backgrounds and the purposes to be served by them.

In waking responsiveness, the experiential background of learning and conditioning has been one of receiving ideas and understandings out of a *total reality situation* and reacting by placing on the responsive behavior a meaningful significance which, in turn, is to be integrated into the reality situation.

Hypnotic responsiveness is, however, of quite another character. The reality situation in which the hypnosis occurs is, in itself, essentially an “*extrapolated reality*” sometimes deriving only from experiential processes within the subject and having little or no relationship to objective reality. Additionally, this hypnotic reality situation is limited by and restricted to the subject's understandings of what is required in the hypnotic situation with an exclusion of, or unresponsiveness to, objective realities that may be regarded as irrelevant, coincidental, or merely concomitant.

Of even greater significance in differentiating between waking and hypnotic responsiveness is the nature of the purposes and goals achieved. Waking responsiveness tends to be goal-directed towards an integration with objective reality in some form, while hypnotic responsiveness tends to be its own goal, complete in itself and without need for integration into objective reality. For example, the instruction in the ordinary waking state to blush and then to feel cold and develop “goose-flesh” would be most likely to elicit responses only indirectly related to the behavior sought. The same instructions to the same person in a profound trance, however, could easily elicit the requested behavior.

## ***AN EXPERIMENTAL APPROACH***

To illustrate from actual laboratory experimentation, the following is cited: Seven college students—two women and five men—were employed as experimental subjects. One of

the women and three of the men were somnambulistic hypnotic subjects. The other three were unacquainted with hypnosis, but after the first experimental procedure they were also trained to develop profound hypnotic trances.

The entire experiment was conducted separately with each student. The first step involved introducing the subjects to a colleague inexperienced in hypnosis who in turn induced each of them to act as a subject for a physiology experiment involving the simultaneous use of a plethysmograph upon each hand. They were unfamiliar with the apparatus, were given no understanding of the experiment, and the volumetric recordings made were outside their visual range. Once the apparatus was functioning, the subjects were instructed simply: "For five minutes, in silence, you are to watch that clock and, while doing so, you are to make your right hand cold and your left hand hot. Then for another five minutes, you will reverse the procedure by making the right hand hot and the left hand cold."

## **RESULTS**

### **1. Waking State with No Trance Training**

The volumetric recordings obtained disclosed no instance of significant changes. The subjects had shown only puzzled interest.

### **2. Hypnotic State**

The next procedure that followed the hypnotic training of the three originally hypnotically untrained subjects was merely a repetition of the first procedure. This time, however, each subject was in a profound somnambulistic trance with instructions to be able to hear and understand the colleague. The volumetric recordings obtained this time, for all seven subjects, were in accord with vascular dilation and contraction in direct correlation to the instructions given them. The subjects were awakened from the trance state and dismissed with an amnesia for the events of the experiment.

### **3. Waking State After Trance Training**

The third procedure was conducted in the waking state and was a repetition of the first procedure. Significant volumetric recordings were obtained from four of the subjects, but it was also noted that they had developed spontaneous trances. When questioned about this, they explained that the task was "impossible when awake" and hence they had resorted to a trance state in order to obey instructions.

### **4. Awake State with Dissociated Arms**

The fourth procedure was similar to the first except that the colleague urged them to avoid falling asleep. Two subjects positively produced significant volumetric records and, when questioned, explained that they had followed instructions by "carefully keeping

awake while just my arms went asleep". In this way they felt that they had obeyed both the instructions to stay awake and the instructions about their hands.

## **5. Autohypnosis After Trance Training**

The final procedure was to explain the experiment to the subjects and to suggest that they investigate their own abilities. They soon demonstrated their ready abilities to bring about volumetric changes in their hands if they first developed trances. When questioned about how they accomplished these results, they explained with varying degrees of clarity how they withdrew from objective reality and created out of their memories and ideas an "experiential reality" that "resulted" in their hands becoming either hot or cold.

## **DISCUSSION**

Similar experimental findings have been reported over the years, so that these results constitute no new or special development. Judging from these and other experimental findings, as well as from a much greater wealth of clinical observations, the hypnotic state is conducive to a responsive functioning by the person in direct accord with, and relationship to, the stimulus itself. In the ordinary waking state, however, it appears that the responsive functioning occurs in relationship to the stimulus as emerging from, and constituting only a part of, a much greater and seemingly more significant reality background.

For example, the experimental subjects as described in the third and fourth procedures "withdrew" from the reality of the physiology laboratory and its setting. Then, out of their own past experiential learnings and conditionings, they "created a reality" that permitted a responsive functioning in accord with the demands of the experiment. Even against a background of actual physiological achievement they still resorted to the establishment of an "experiential reality" as opposed to objective reality in order to accomplish their tasks.

In other words, the hypnotic state derives from, or results in, an attentiveness and a receptiveness to ideas and understandings as well as a readiness to function responsively to the ideas themselves without a need to establish them as stimuli emerging from and constituting a part of the existing objective reality external to the self. As a result, the reality or validity of ideas and suggestions in hypnosis which act as stimuli to elicit responses based upon experiential learnings transcends in importance and significance the irrelevant, coincidental, or concomitant aspects of objective reality.

# **A Clinical Experimental Approach to Psychogenic Infertility**

Milton H. Erickson

Edited from a presentation made at the American Society of Clinical Hypnosis Annual Meeting, October 4, 1958.

I will present today a clinical experimental approach to psychogenic infertility that evolved out of many years of clinical and experimental observations. I will first outline these clinical and experimental observations and then describe my therapeutic program dealing with psychogenic infertility and my results with 20 cases.

## **CLINICAL OBSERVATIONS**

A clinical observation that has been repeatedly discussed in the literature is the not unusual occurrence of a pregnancy following the adoption of a child after a long period of infertility. In those instances with which this writer is acquainted, the mothers' general attitudes and behavior before the adoption of a child were characterized by marked tension and anxiety related to the fear of infertility. Their descriptions of their sexual behavior also emphasized marked physical tension and anxiety. Following the adoption of a child, especially an infant in arms, there usually occurred in the mothers a marked decrease in tension and anxiety with the emergence of a definitely increased state of physical relaxation. This general improvement was also found to extend into the sexual sphere.

## **EXPERIMENTAL OBSERVATIONS**

All of you are aware of the fact that you can suggest to a patient in the trance state that he is cold, and you can get evidence that he is cold. You can suggest that he is warm, and get evidence that he is warm. You can suggest that he have a muscle spasm, that he have a muscle paralysis; you are aware that you can induce gastrointestinal activity; that you can alter the flow of urine; that you can alter the flow of blood; that you can do any number of things in altering the physiological behavior of the individual. You can make him hungry; you can make him satiated without the benefit of food. You know that the dentist can decrease the capillary flow. The preceding speaker spoke of the decreased flow of blood in the Caesarian operation. In experimental work you can demonstrate with the use of plethysmograph the volumetric changes in blood flow that take place when you ask a subject to make his right hand hot and his left hand cold, and vice versa.

From the background of the above clinical and experimental observations, and the general knowledge available on the interrelationships between tension and anxiety states and spastic reactions, a clinical experimental procedure was devised as a possible

therapeutic approach to selected cases of infertility. Briefly, my basic hypothesis was that the anxiety and tension these infertile women experienced could be manifested as tubal spasms that interfered with the normal transport of the ovum to the uterus; this was the psychosomatic basis of their infertility. My therapeutic approach to their problem was to place these women on a program of hypnotic training designed to increase muscular relaxation and blood flow so that their hypothesized tubal spasms would be reduced.

## Clinical Subjects

Twenty patients were referred to me over a number of years because of infertility. All these patients had been infertile for at least four years, one for fifteen years, another for twelve years (see Table 1). All of these patients had anxiety and tension, fear, distress, and unhappiness. Some of them had been operated on to see if there was anything wrong with their ovaries. They had undergone various medical regimens. They'd been recommended to psychiatrists for psychotherapy, but they didn't want psychotherapy—they wanted a baby.

On the whole these patients, both the successes and the failures, were a homogeneous group. They all complained of being "nervous," "anxious," "worried," "tense," "frustrated," "hopeless," "easily upset," "tired," unable to relax or to sleep well, easily reduced to tears, and always feeling that "things are just too much, too overwhelming." All were either definitely overweight or underweight. Their general health, however, despite complaints, was fairly good.

Of the total group, the two oldest patients, both successful, and three of the other women, were married to men who had fathered children in previous marriages. Three of the successes and four of the others had borne a single child, conceived during the first year of marriage, and followed by periods of infertility ranging from four to eight years. A few had practiced contraception during the first year of marriage only.

## METHOD

The actual methodology employed with these patients is difficult to describe since it was based upon the presentation of ideas, the establishment of good interpersonal relationships and the use of hypnosis to facilitate and ensure adequate responses. Also, each patient was handled separately, and the duration and rapidity of therapy varied from one patient to the next, as did the exact order of procedure. The preliminary step in each case, however, was the same: A slow, carefully worded explanation was offered to each of them; much of their previous medical treatment served to give weight to the ideas presented. To each patient it was emphasized that the failure of conception might derive from tension, particularly muscular, from spasms, particularly tubal, and from faulty blood circulation that in turn would result from the spasms and muscular tension. Because of these significant possibilities, it was proposed that we employ hypnosis as a special aid in dealing with these psychosomatic manifestations. The purpose of this explanation was not a presentation of established scientific facts, but merely a communication of ideas in general to elicit patient cooperation.

The procedure with each patient was as follows:

1. Hypnotic training resulting in trances which varied from light to medium and deep. Sometimes, only a utilization of hypnotic fixation of attention was required to induce trance.
2. A reorientation of the patient concerning the purposes of therapy. They had all been referred for psychotherapy because of tension, anxiety, nervousness, and general maladjustment. The explanation was given carefully and slowly that their need for psychotherapy was a secondary need, that their primary need was maternal satisfaction, and only in the event of absolute failure in this regard would they need psychotherapy.
3. The reaching of an agreement with each of them to the effect that an earnest experimental procedure would be employed with them in an effort to meet their primary needs.
4. A systematic hypnotic training in which each woman was taught what was described as "basic, easy, tensionless physiological functioning ordinarily learned spontaneously but, in your case, requiring special effort and instruction."
5. A systematic progression from commonly known physiological manifestations related to altered blood flow such as blushing to a postulation and suggestion of less familiar but comparable manifestations of altered blood flow and blushing in different parts of the body, particularly the pelvic area.

## **HYPNOTIC TRAINING**

The actual initiation of hypnotic training was essentially the same for each patient. Since they all complained of tension and fatigue, the "beginning step" was to teach them simple relaxation by employing an hypnotic technique of body relaxation. Once this had been learned and their interest well enlisted, the experimental procedure was developed in the following steps, each one being repeated again and again if necessary to meet the patient's learning needs:

1. Relaxation of entire body with feeling of restfulness and comfort.
2. Transformation of that feeling of comfortable relaxation into one of physical heaviness, sluggishness, inertia, and "utter tiredness."
3. Restoration of feeling of comfort and relaxation.
4. Teaching the "partitioning of the body," i.e., simultaneously, "right leg comfortably relaxed," "left leg painfully tired, heavy, sluggish and inert;" "right arm feeling normal," "left arm rested and full of energy."
5. Teaching of rigidities, i.e., simultaneously "right arm stiff and rigid as an iron bar," "left arm relaxed and comfortable;" "left leg fixed and rigid and immovable," and "right leg at ease and comfortable and mobile."

The above training was relatively easily accomplished. Depending upon the patients' capacities to learn, the procedures were repeated until they seemed to comprehend adequately. However, the next step in the hypnotic training was more difficult. Their

capacities for visual, auditory, and tactile imagery were tested and appropriate suggestions were offered to each patient, according to individual abilities, to experience vividly a sense of coldness and "goose bumps," of warmth, hotness, and perspiration, of blushing, shame, and embarrassment, of sunburn, hotness, and pain, of the roughness of sandpaper, and of rasping.

When all of this seemed to have been learned adequately as a general phenomenon, the patients were asked to learn it in the same "partitioned" manner as the relaxation had been learned. Thus, each patient was systematically taught: "Right hand cold, left foot hot, face warm, hands cold, face blushing, body cold, right breast cold, left breast warm, all embarrassed and all cold, all happy and all warm, all embarrassed and all warm," until the patient was ready to accept and act upon any experiential suggestion given.

The patients were then finally allowed to extend whatever manifestations of heightened blood flow they could experience to the pelvic area. Thus some learned to experience warmth, hotness and perspiration in their pelvises while others experienced blushing, embarrassment and sensual warmth. In the next section I will describe in more detail the experiences of Anne as a typical case illustrating the above process.

## **RESULTS AND CASE STUDY**

Table 1 summarizes the pertinent data on the successful patients.

In summary, of the twenty infertile women with whom I worked, the ten who stayed with me all became pregnant within a range of two to thirteen months. Ten of those twenty women had children. Of the ten that did not become pregnant the longest I treated any one of them was five months. These unsuccessful cases terminated their work with me because they became discouraged that hypnotic therapy didn't seem to be working fast enough. They wanted their pregnancies too soon—often expecting success within the first month. The following case study of Anne was typical of the clinical course in the successful cases.

## **ANNE: A CASE STUDY**

Anne had been married twice, the first time to a man who had been divorced from his first wife by whom he had fathered several children. Anne married him and they lived happily for a while, but she desperately wanted a baby. All of their endeavors produced no pregnancy, despite Anne's wandering from one physician to another. She stayed with one good physician for a whole year, and then she sought out another good physician for a whole year. Finally she divorced that first husband because she wanted a baby, and she married another divorced man who had fathered several children by his first wife. Seven years went by with this husband, and there was no baby. So she had spent twelve years in all trying desperately to conceive. Finally, because of the severity of her tension, anxiety, and fear, her physician sent her to me for psychotherapy. Anne stated clearly that she didn't want psychotherapy, she wanted a baby—she had tried plenty of psychotherapy in the past.

TABLE 1  
CHARACTERISTICS OF THE INFERTILE WOMEN SUCCESSFULLY TREATED

Patient Identity	1	2	3	4	5	6	7	8	9	10
Age (in years)	25	28	28	31	31	33	33	34	36	38
Infertile Period (in years)	4	5	6	3	11	7	8	8	12	15
Pervious Children	0	1	1	0	0	0	1	0	0	0
Treatment Period (in months)	7	2	13	3	10	5	6	2	2	9

## Hypnotic Training

So, utilizing all the things that I knew about what you can do to physiological behavior with hypnosis, I trained Anne to go into a nice profound hypnotic trance, telling her that she could think about the various parts of her body separately. I pointed out to her that her right arm could get very very cold, and her left arm very very hot. I taught her that her right arm could get very very tense and her left arm could get very relaxed. Then I taught her to separate the various parts of her body in different fashions . . . left leg being relaxed, right arm being very tense, the left arm being very hot, the right leg being very cold. And I bounced these various physiological reactions around in her body until she really understood. Then I taught her that she could sit quietly in her chair and she could get a feeling of intense blushing in her face. I suggested that she get a feeling of intense warmth in her thighs, which would mean a blushing of her thighs; then a coldness in her chest, and then a warmth in her breast, so that I bounced these various physiological processes around within her. Then I explained to her something about the physiological processes of menstruation. And I suggested that she really learn how to relax her pelvis, and to relax it completely, thoroughly, to get a tremendously warm feeling in her pelvis, then let go of that relaxation, and then re-develop the relaxation and the warm feeling, until Anne had the feeling that she could relax her pelvis completely, and have it feel warm and comfortable.

My motivation for using this technique came from my suspicion that there might possibly be a tubal spasm. So I told Anne that, and I spent quite a number of hours with her during the first month of therapy. For the first time, she had a normal menstrual period without cramps. She was very pleased with this, but she informed me that she wanted that sort of thing to stop (menstruating). And I told her it would, but that she should practice this matter of pelvic relaxation and this feeling of comfort, and that during sexual relations there should be a tremendous feeling of comfort and relaxation throughout her body, and especially in her pelvis.

Anne had first come to me in October at which time she was just completing a period. She had normal periods in November and December. Then she came to see me just after Christmas and said, "I got my Christmas present-you made me pregnant!" Then she flushed and said she didn't mean it the way the words sounded, but that she had had such enjoyable sexual relations, and that it felt so relaxed and so comfortable, that she was absolutely certain that the physiological relaxation that I had taught her had enabled her to become pregnant.

Now I think all of you ought to consider this matter of re-educating the physiological responses of the body. If we can do it in one area, we can do it in another. If we can correct constipation, if we can correct retention of urine, why can't we correct tubal spasm. The point is, we ought to expect to find solutions rather than passively accepting a decree of "uncurable." Such an attitude of expectancy is far more conducive to our task of exploration, discovery and healing.

# **Breast Development Possibly Influenced by Hypnosis: Two Instances and the Psychotherapeutic Results**

Milton H. Erickson

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Common experience has demonstrated repeatedly that unconscious attitudes toward the body can constitute potent factors in many relationships. Learning processes, physical and physiological functioning, and recovery from illness are, among others, examples of areas in which unrecognized body attitudes may be of vital significance to the individual. Hence the question is pertinent: To what extent can specific forms of somatic behavior be influenced purposefully by unconscious forces, and what instances are there of such effects? The two following cases, aside from their hypnotic psychotherapeutic significances, are presented as indicative of a possibly significant problem for future research concerning unconscious purposeful influence upon breast development.

## **CASE 1**

A 20-year-old girl was brought by her older sister for a single hypnotherapeutic interview because of failure of breast development, despite good nipple development. The girl was found to be seriously maladjusted emotionally, had failed some of her college courses, and was afraid to seek employment. She was, and since childhood had been, deeply religious, but her religious understandings and convictions included an undue element of austerity and rejection of the physical body. Additionally, it was learned that she was engaged to be married to a 47-year-old alcoholic welfare recipient, because, as she resentfully declared, with no breasts she was not entitled to more.

She readily developed a medium-to-deep trance and manifested a markedly passive attitude. The suggestion was offered to her that she read carefully and assiduously the Song of Solomon, and that she recognize thoroughly that it glorified the Church, and before the time of the Church, it glorified the human body, particularly the female body in all its parts. She was admonished that such should be her attitude toward her body, and that perhaps an attitude of patient expectancy toward her breasts might aid in some further development. It was further explained to her that as she obeyed instructions she was to feel with very great intensity the goodness of her body, particularly the goodness of her breasts, and to sense them as living structures of promise, and in which she would have an increasing sense of comfort and pride. These suggestions variously phrased were repetitiously presented to her until it was felt that she had accepted them completely.

The outcome almost two years later of this one hypnotherapeutic session may be summarized as follows: (1) The breaking of the engagement to the alcoholic; (2) weekly

reading of the Song of Solomon; (3) return to college and successful completion of the courses previously failed; (4) enlargement of social and recreational life; (5) successful employment; (6) recent engagement to a young man of her own age group whom she had known for several years; (7) independent reports from her and her sister that breast development had occurred to the extent of "one inch thick on one side, about one and one-half inches on the other side."

### **Comment**

That significant therapy was accomplished for this patient cannot be doubted. That her breasts actually enlarged is not a similar certainty, since an objective confirmatory report was not obtainable. But there is a definite possibility that physical processes, comparable in nature and extent to those which occur in "psychosomatic illness," may have resulted in what might, as a parallelism, be termed "psychosomatic health."

### **CASE 2**

A 17-year-old girl was first seen in her home because of her seriously pathological withdrawal responses to the failure of her breasts to develop, despite the adequacy and maturity of her physical development otherwise. She had a history of extensive medical treatment, extending over five years, with much experimental endocrinological therapy. The only results had been an increasing failure of emotional adjustment, and the possibility of a mental hospital was under consideration.

She was found hiding behind the davenport, and upon her being discovered there, she rushed behind the piano. When she learned that "no more medicines or needles" would be employed, superficially good rapport was established, possibly because she regarded the situation as offering a better means of escape or withdrawal. She was found to be a good hypnotic subject, readily developing a light-to-medium trance.

The first interview, after several hours' effort in winning her cooperation, was spent primarily in appraising her personality assets, both in and out of the trance state. During the interview she was found to have a Puckish sense of humor, with dramatic overtones, and this was utilized as the opening gambit for the therapeutic approach. This was initiated by reminding her of the old song about how the toe-bone is connected to the foot-bone, etc. When her interest had been fully aroused, a paraphrase was offered in relationship to the endocrine system, and it was pointed out that, even as the foot-bone is connected to the ankle-bone, so is the "adrenal bone" connected with the "thyroid bone," with each "supporting and helping" the other.

Next she was given suggestions to feel hot, to feel cold, to have her face feel uncomfortably hot, to feel tired, and to feel rested and comfortable. She responded readily and well to these suggestions, whereupon it was suggested effectively that she develop an intolerable itch upon her feet. This itch she was then to consign with dramatic intensity, not to the nethermost depths, but to the "barren nothingness" of her breasts, a fitting destination for so intolerable an itch. However, in further punishment of it, the itch

would become a constantly present, neither pleasant nor unpleasant, noticeable but undefined feeling, rendering her continuously aware of the breast area of her body. This involved series of suggestions was formulated for the multiple purposes of meeting her ambivalences, puzzling and intriguing her, stimulating her sense of humor, meeting her need for self-aggression and self-derogation, and yet doing all this without adding to her distress and in such fashion and so indirectly that there was little for her to do but to accept and to respond to the suggestions.

Then the suggestion was offered that, at each therapeutic interview, she was to visualize herself mentally in the most embarrassing situation that she could possibly imagine. This situation, not necessarily to remain constant in character, would always involve her breasts, and she would feel and sense the embarrassment with great intensity, at first in her face, and then, with a feeling of relief, she would feel that weight of embarrassment move slowly downward and come to rest in her breasts. She was given the additional posthypnotic suggestion that, whenever she was alone, she would regularly take the opportunity to think of her therapeutic sessions, and she would then develop immediately intense feelings of embarrassment, all of which would promptly "settle" in her breasts in a most bewildering but entirely pleasing way.

The rationale of these suggestions is rather simple and direct. It is merely an effort to parallel in relationship to her breasts, but in a pleasant, constructive manner, such unfortunate destructive psychosomatic reactions as "terrible, painful knots in my stomach over just the slightest worries."

The final set of hypnotic instructions was that she was to have a thoroughly good time in college. (By these suggestions all discussion of her withdrawn behavior and college attendance was effectively bypassed.) It was explained that she could, in addition to handling her academic work adequately, entertain herself and mystify her college mates delightfully by the judicious wearing of tight sweaters and the use of different sets of "falsies" of varying sizes, sometimes not in matched pairs. She was also instructed to carry assorted sizes in her handbag in case she decided to make an unexpected change in her appearance, or, should any of her escorts become too venturesome, so that she could offer them a choice with which to play. Thus her Puckish activities would not lead to difficulties.

She was first seen in mid-August and given weekly appointments thereafter. The first few of these were used to reiterate and reinforce the instructions previously given her and to insure her adequate understanding and cooperation.

Henceforth she kept, by permission, three out of four appointments "in absentia." That is, she would seclude herself for at least an hour, develop, in response to posthypnotic suggestions, a medium-to-deep trance state, and in this state, as far as could be learned, she would review systematically and extensively all previous instructions and discussions and whatever "other things" that might come to her mind. No effort was made to determine the nature of those "other things," nor did she seem to be willing to volunteer information, except to the effect that she had thought of a number of other topics. The

other appointments she kept in person, sometimes asking for information, sometimes for trance induction, almost always for instructions to "keep going. " Occasionally she would describe with much merriment the consternation she had caused some of her friends.

She entered college in September, adjusted well, received freshman honors, and became prominent in extracurricular activities. During the last two months of her therapy she kept her visits at the level of social office calls. In May, however, she came in wearing a sweater and stated with extreme embarrassment, "I'm not wearing falsies. I've grown my own. They are large medium size. Now, tell them to stop growing. I'm completely satisfied."

Her college career was successful, and subsequent events are entirely satisfactory. At the writer's request she underwent a complete physical examination, with special reference to her breasts, a report of which was sent this writer. She was physically normal in every regard.

### **Comment**

Whether or not the hypnotherapy had anything to do with her breast development is not known. Quite possibly the development may have been merely the result of a delayed growth process. It may have been the result of all the medication she had received. Or it may have been a combined result of these, favorably influenced by her altered emotional state. But at all events the psychotherapeutic results that derived from getting her to enter college and to enjoy life, instead of a continuing of her previous pattern of psychopathological withdrawal, cannot be denied.

However, in all fairness it must be recognized that there is a significant possibility that the therapy she received, through the mobilization of unconscious forces by hypnosis, may have contributed greatly to her breast development.

# **Psychogenic Alteration of Menstrual Functioning: Three Instances**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, April 1960, 2, 227-231.

That menstruation may be precipitated, delayed, interrupted, or prolonged by strong emotional stress is a common observation. Usually such effects are unexpected and seemingly beyond the volitional control of the individual. Unquestionably, speaking biologically, lack of volitional control is as it should be. Nevertheless, the readiness with which an abnormal alteration of some physiological functioning is effected is often in sharp contrast to the difficulty encountered in attempting medically a purposeful directing of those same processes. Hence any instances indicating an intentional purposeful control, whether conscious or unconscious, of physiological functioning ordinarily beyond volitional influences suggest the possibility of significant research.

Following are three separate clinical accounts of an intentional, purposeful interference with the menstrual cycle. Two of the women deliberately employed hypnotic experience to effect special personal purposes, while the third utilized in a new fashion a psychosomatic pattern of reaction established in other relationships, doing this just after she had been carefully trained hypnotically for a possible correction of this pattern.

## **CASE 1**

A young woman, an experienced hypnotic subject, had many times been much annoyed by the insistent sexual importunities of a certain man. His behavior on one occasion had disclosed to her that he had an extreme olfactory aversion for menstruation and that he invariably detected the odor and would resort to laborious methods to avoid even the slightest physical contact with a menstruating woman. She had also learned that he kept a timetable on his female acquaintances.

She was invited to a physically confining 10-day social function, which happened to be scheduled for the same time as the mid-period of her menstrual cycle. After she had accepted, a letter from the man apprised her of the fact that he, too, was an invited guest, and in this letter he suggested that they see much of each other during the entire social gathering.

She consulted this writer about the possibility of "having an early period." The frequent effects of psychological attitudes and reactions upon menstruation were explained to her, and it was then suggested posthypnotic ally that, throughout the week preceding the social function, she think and feel and sense and function as if it were the week

immediately preceding her menses. She agreed to this, and the posthypnotic suggestions were reinforced by a detailed explanation to her, in a state of ordinary awareness, of what she could expect her body to do.

She accepted the man's invitation after amending it in her reply to include daily afternoon and evening "cheek-to-cheek" dancing, an item that he fervently promised her in the return mail.

At the social affair some hours after she had induced the man to declare boastfully to the guests that he was "really out of circulation" because of a "promise to dance cheek-to-cheek" with Miss, X, her menstrual period began and lingered for 10 days instead of the usual five or six, during which time she thereby thoroughly punished the man for all of his previous affronts.

### **Comment**

That the alteration of her menstrual cycle was simply a coincidence appears improbable. She was well aware of what she wanted to accomplish before she sought professional advice. This was given on an experimental basis. The subsequent events were in actual accord with her wishes and were also a reasonably logical outcome of the suggestions given her. Subsequent inquiry in both the trance and waking states yielded no significant information except that she had accepted the suggestions and her body had "felt the way it always does a week before my period. But I don't know how I did it."

### **CASE 2**

An artist's model with a regular menstrual cycle and a history of profuse flow with the first few days was offered an unexpected assignment in nude posing on the second day of her period. She had had previous unsatisfactory experience with intravaginal tampons and was about to refuse the assignment when she recalled her previous experimental work with a physician interested in hypnosis and psychosomatic medicine. This led her to accept the assignment with the intention of employing autohypnosis, with which she was experienced, to inhibit her menstrual flow. A telephone call to this writer confirmed her in her intention, but no helpful advice could be given to her except that she should rely upon the capacity of her unconscious mind to function competently.

Shortly before reporting for work, she developed an autohypnotic trance and in some manner unknown to her conscious mind she inhibited the flow from 7:00 P. M. until her return home at 11:00 P. M., after 2½ hours of posing in the nude. She employed no precautions; and, as she explained, she "forgot" her period "both psychologically and physiologically." "I didn't remember after I came out of the autohypnotic trance that it was my menstrual period, and I didn't recall that fact until the flow steadily resumed as I was preparing for bed. I just forgot it as completely physiologically as I did psychologically. I still don't know how I did it."

On another occasion, where the values of the situation were significant, this same young woman discovered that her regular menstrual period would intervene and bar her attendance. Again she consulted this writer, who explained that the appearance of the menses was often temporally altered by various physiological forces, and hence, in view of her past experience in inhibiting menses, she might try the experiment of delaying her period. Instead, because she thought it the safer procedure, she induced her period 10 days early.

Subsequently she postponed her period experimentally for 10 days, beginning the period of delay the day before her period was to begin, and after the usual molimina had indicated that the menses were about to begin.

### **Comment**

This second account is essentially an experimental study on the part of the woman. She was interested in her body and what it could do. Her knowledge of psychosomatic medicine and her extensive knowledge of hypnosis provided an ample background for her own personal investigation. How she accomplished her various purposes is not explained by her simple assertion of "forgetting physiologically." Yet one can draw somewhat of a parallel with the "forgetting" of intense hunger that can be effected by a pleasing interest. At all events her findings suggest that experimental investigations of psychosomatic alterations of physiological functioning are feasible.

### **CASE 3**

An out-of-state woman, much in love with her husband, invariably reacted with severe physical symptomatology, prolonged from one to three weeks, whenever she became sufficiently distressed emotionally. Her symptomatology variously included marked hematuria, protracted diarrhea, severe nausea and vomiting with excessive weight loss, and disabling headaches and backaches. These conditions invariably developed suddenly, almost always after a quarrel with her husband because of her unwarranted and unreasonable jealousy. As she explained, "My sickness, no matter what kind, disappears like magic just as soon as I feel punished enough. In an hour's time I'm well, but I'm usually pretty washed out." She sought therapy to free herself from this psychosomatic pattern, and she had arranged to be away from home an indefinite length of time.

In taking her general history, she was found to have a pain-free 30-day menstrual cycle with almost exact regularity, and she carried a small calendar appointment book in which she had marked for the entire year the date of her expected periods with a notation of their actual date of occurrence. Her book was examined from January to September, and in two instances the expected date and the actual date differed by one day only.

She was found to be an excellent somnambulistic hypnotic subject, and the second and third interviews were spent in training her hypnotically for therapeutic work. On the evening of the third interview, in accord with a previous arrangement, she attempted to reach her husband by long-distance telephone and failed. (She had not made allowance

for the difference in time zones.) She developed a furious rage, went out walking, encountered a strange man, and for the first time in her life engaged in illicit sex relations. She reported this to this writer the next morning with much contrition, and added that her period was due in three days and she hoped she would not become pregnant. She postponed further interviews, stating that she would call after the second day of the expected period.

Six days later she came in to declare that she was pregnant and that she was going to seek employment and pay her own expenses throughout the period of her pregnancy. She demanded that she be placed in a deep trance and instructed emphatically that this pregnancy be impressed upon her as the final somatization of her emotional outbursts. She explained that the pregnancy would give her an adequate period of time in which to mend her "habit of always and always taking my mad out on my body." When doubt was expressed about the certainty of the pregnancy, she was emphatic in asserting that her intense awareness of her own physical experience with three previous pregnancies (the last one eight years previously, contraception since then) left no doubt in her mind. The only instruction given her in the trance, in response to her request, was that she meet her situation adequately.

She secured employment that day and was not seen until six weeks later. She brought in letters addressed to the writer from two independent obstetricians, each of whom stated that she gave good physical evidence of pregnancy and both of whom commented, at her request, upon her unusually extensive and unusually early breast engorgement in relation to her pregnancy. After the letters were read, she requested that the writer call each of the obstetricians and verify the letters, but without betraying to either that she had been examined by another physician. The telephone calls merely confirmed the letters, but one obstetrician recommended a laboratory test as "confirmatory alone." The other, when asked about this, stated that he was confident about his examination findings, but would order a laboratory test if desired. Both expressed surprise at the extent of her breast development and stated an interest in following the breast development, which seemed to indicate a pregnancy much further advanced. This was related to the patient, and she listened quietly, then asked that she be hypnotized. In the deep trance she asked that she be instructed to discuss everything on her mind.

This was done, and she launched into a discussion of her wishes and fears concerning an abortion and her aversion to such a procedure. She debated the matter back and forth, then took up the plans she was formulating for giving birth to her child secretly and in some way securing an adoptive home for it. She wanted no advice or instruction from the writer, except in the form of encouraging her to pursue her ideas as freely as she could. She finally asked to be aroused from the trance with an amnesia for what had been discussed. Out of the trance she explained that she would telephone for an appointment "some time."

Eight weeks and four days from the expected date of the missed period, she came in for an interview, bringing letters, again from two different independent physicians. These letters contained the statement and a laboratory report to the effect that physical

examination showed normal menstruation and that this was confirmed by a laboratory report of vaginal smears. She asked that a telephone call be made to each of them, again with the request that no betrayal be made that she had consulted another physician. Each physician confirmed his report and expressed curiosity as to why any woman would want a medical and laboratory examination and a special examination of her breasts to confirm a normal menstrual period. Both mentioned that, since she was an out-of-state patient, the suspicion had arisen that something illegal was involved, and hence the examinations had been most thorough. However, when she requested the letters which were to be addressed to the writer, it was apparent to them that her problem was emotional rather than legal.

The patient explained, "I just wanted you to be certain I hadn't secured an abortion, so that you would listen to me. Four days ago I woke up that morning and I knew I wasn't pregnant. I realized that I had just punished my body the way I always do when I get mad. I felt my breasts. They were smaller, the swelling had gone out of them, and they were just tender around the nipples, the way they always are just before I menstruate. So I called my boss and said I was sick and I couldn't come in, and I just stayed in my room to enjoy menstruating. It started about 11:00 A.M. and in just the usual way. And that afternoon I called doctors for appointments and explained I wanted a laboratory examination made of my vagina. I got the appointments for the next day because I always flow very lightly until after the first night. Then I had to wait until I had the lab reports, and that's why I only got here this afternoon. But now something makes me think you should hypnotize me so I can tell you what's in my unconscious mind."

In the trance state the patient explained that the sexual episode had been seized upon "to teach me a lesson. I just remembered every feeling I ever had in my pregnancies and I just made my body have those feelings, and that made me believe I was pregnant and that helped me to feel all the pregnancy feelings better. I even noticed how I started to walk like I was pregnant. I just got every one of the feelings that I learned when I was really pregnant. And I was so worried about being pregnant and what I would do and how I could stick to my job. Finally, I went to bed one night feeling just completely whipped, knowing I'd have to take my responsibilities absolutely completely. I fell asleep exhausted, and the next morning I woke up feeling wonderful, knowing I wasn't pregnant. Tell me I'm all through punishing my body. I know I am, but I want you to tell me, too." There was some additional discussion, but the above contains the essential communications.

A friendly correspondence has been maintained with this patient at fairly regular intervals for more than four years. She has had no further physical symptomatology in relation to the emotional distress. Her pathological jealousy has disappeared. Her husband's acquaintance has been made, and he also assures the writer that his wife's previous emotional outbursts and physical reactions are past history and that she is remarkably happy and well-adjusted.

## **Comment**

This case report is a definite instance in which a patient adapted an established pattern of severe, prolonged, somatic disturbances of sudden onset and disappearance, in reaction to states of emotional stress, to a new and different personality problem involving a special order of physiological processes. It presents the intriguing problem of how extensively and how elaborately unconscious forces and motivations can be utilized to mobilize physiological functions in a systematically directed fashion. Considerable information exists in the literature about 'laboratory procedures in the conditioning of body behavior, but there is little available information on how the learnings derived from body experiences can be utilized to influence or direct selected physiological processes.

## **SUMMARY**

These three case reports indicate, each in a different way but each in relationship to hypnosis, that somatic learnings derived from body functioning can be utilized meaningfully but in an unknown fashion. Additional such case reports could conceivably serve in the further confirmation of these findings and in the development of more understandings in this important, complex field.

## **Appearance in Three Generations of an Atypical Pattern of the Sneezing Reflex**

Milton H. Erickson

Reprinted with permission from *The Journal of Genetic Psychology*, 1940, 56, 455-459.

*Previous to the submitting of this report inquiry made of the young woman had found her mistakenly confident that no one else in her family showed this peculiar pattern of sneezing behavior. Recently an opportunity for direct inquiry and observation disclosed that the sneezing behavior of the young woman's mother was essentially identical with that of the daughter and the granddaughter. Unfortunately, however, no day-by-day record could be secured. Further direct inquiry disclosed no other instance of such unusual behavior in the family.*

The purpose of this short note is to report the observation in a young woman of an atypical pattern of the sneezing reflex which was originally considered to be strictly a personal mannerism or habit of marked individuality. The error of this assumption, however, was disclosed by the reappearance of this same peculiar pattern of sneezing behavior in her new-born daughter and the subsequent discovery that an essentially identical pattern was exhibited by the young woman's mother. The situation which led to the making of this report was as follows:

Close observation of the young woman over a period of years disclosed her sneezing behavior to be that of always expecting and usually experiencing, generally within one to two seconds, a second sneeze in rapid succession to the first. Inquiry disclosed that this pattern of paired sneezes was of lifelong duration, that she had taken pride in it as a child, and that she could not remember ever having observed similar behavior in others, including her family. In this last recollection, however, she was mistaken, since, after this study had been completed originally, the author discovered by direct observation and inquiry the same peculiarity in her mother's sneezing behavior.

As a consequence of this peculiar pattern of sneezing, the young woman has developed a definite modification of her general behavior, in that on the occasion of a sneeze she arrests her activity to await a second sneeze, and should it fail to occur, she experiences a somewhat distressing sense of incompleteness. This same feeling of expectancy is also described by her mother.

Those fully aware of this young woman's oddity in sneezing tended to regard it purely as an individualism, an acquired habit based upon some chance occurrence in her early childhood, and fostered until it had become an ingrained habit. She herself regarded it as an innate, rather than as an acquired, pattern of behavior over which she had no control, constituting nothing more than an amusing physiological peculiarity and she offered the

explanation that it might be similar in character to the sneezing reflex encountered in relation to bright light or to temperature changes.

Exposure without her knowledge to nasal irritants, particularly substances to which she is allergic, does not alter this sneeze pattern, but serves rather to bring it markedly into relief, as does upper respiratory infection.

In 1938 this young woman became a mother. About three weeks later, upon her return home from the hospital with the baby, the infant was observed to sneeze twice in rapid succession. No particular attention was paid to this except to note it casually. During the next few weeks, probably because of various allergic reactions shown by the baby, many observations were made of paired sneezes in the infant and of the persistence, after the first sneeze, of the general muscular tension and facial grimaces suggestive of an anticipatory response to another sneeze, all very much in duplication of the sneezing behavior of the mother.

When approximately two months old, the baby developed an upper respiratory infection and sneezed frequently and consistently in sets of two, with the time interval between sneezes never longer than a single, usually sharp, inhalation of breath. On relatively rare occasions this inhalation would be spasmodic in character and then, instead of a single sneeze, there would be a series of two to six in rapid succession, a finding also true for the mother.

When interest was first taken in the baby's paired sneezes, both parents began watching for singles. By the time the infant was three months old a total of three single sneezes had been noted, while there had been scores of pairs. During the next few weeks, however, a constantly increasing frequency of single sneezes was noted and led to the making of a belated record of every sneeze heard. This account was begun when the baby was slightly more than four months old. A similar record was kept on the mother, the two records differing only in completeness, since all of the mother's sneezes were listed, while only those heard by either of the parents when with the baby could be recorded. Unfortunately, however, no day-by-day record on the grandmother could be secured, and it was necessary to rely upon careful inquiries. As a control measure, close attention was paid to the sneezing of five other people, two of whom suffer from numerous allergies, to note the occurrence of paired sneezes. In addition the author watched carefully for double or multiple sneezing among his numerous associates, but in no instance was a pattern of double sneezing discovered.

After the record had been kept for a considerable length of time, another peculiarity, not shown by the mother, was noted in the baby's sneezing—specifically, a light reflex sneeze. This type of sneeze tended to occur upon sudden exposure to bright light, such as being taken out-of-doors into the bright sunlight, the turning on of the electric lights at night, or the sudden flashing of a bright light into the child's eyes, and, as far as could be determined, the distribution of single and paired sneezes followed the general pattern. After making this discovery, the parents tended to avoid sudden light stimulation,

reducing somewhat the previous frequency of sneezes. In Table 1 the sneezes listed as light reflexes are known instances only. In all probability the actual total is greater.

Other observations made while keeping the record, which extended over a period of nearly four months, were that for both cases the ratio of paired to single sneezes remained essentially constant from day to day, and that upper respiratory infection and exposure to allergens served only to increase proportionately the frequency of both types of sneezes. It is also of interest to note that previous to the keeping of the record the mother believed that only rarely did she herself sneeze singly. In addition, despite the close watch kept on the sneezing behavior of a large number of people, no similar pattern was found, although a few instances of occasional multiple sneezing were observed.

### **COMMENT**

Frequently in a specific type of behavior involving organic and psychic patterns of response, the differentiation is difficult between the behavior constituting a functioning of innate physiological and neurological processes and the behavior constituting a response of the personality itself to organic processes over which it may have little or no control. Nevertheless the attitude taken by the personality may serve markedly to alter or to distort the strictly somatic aspects of the total behavior process, and particularly is this considered to be the case when some relatively simple form of physiological behavior involving definite psychic responses manifests a striking individuality peculiar to the person.

**TABLE 1**  
DISTRIBUTION OF SNEEZES

	<i>Mother</i>	<i>Daughter</i>
Single sneezes	32	125
Paired sneezes	105	212
Triple sneezes	17	20
Multiple sneezes (more than three)	4	5
Light reflex sneezes	0	20

Hence when some process of physiological or neurological behavior shows apparently purposeless and illogical variations in accord with what could reasonably be expected to result from personality factors, the assumption is made that the personality has seized upon that innate behavior and added to it learned behavior serving other and remoter purposes of the personality, as is often to be noted in psychoneurotic symptomatology.

At first thought this might seem to be the case with the young woman, especially so since her mother's sneezing behavior could furnish an opportunity for an imitative performance. However, the appearance of the same pattern in the granddaughter long before the possibility of imitation clearly indicates either an inheritance or a remarkable coincidence. In this connection references may be made to the recent extensive experimental studies on the startle pattern by Landis and Hunt (1939), who found that, "Complicated bodily responses exist and are exhibited in a pattern-like fashion—startle, Moro reflex, sneezing, coughing, and so on," and that the general pattern of these

responses tends to remain constant regardless of age, sex, and race. To this may be added that variations in the pattern may be inherited.

# An Addendum to a Report of the Appearance in Three Generations of an Atypical Pattern of the Sneezing Reflex

Milton H Erickson

Reprinted with permission from *Perceptual and Motor Skills*, 1964, 18, 309-310.

In the *Journal of Genetic Psychology* in 1940 this author reported the appearance in three successive generations of an atypical pattern of the sneezing reflex. A young mother, her infant daughter, and the grandmother all show a pattern of occasional single sneezes, a large number of paired sneezes, a few triple sneezes, and rare multiple (more than three) sneezes. Respiratory infections, allergens, and the light-reflex sneeze did not alter the character of the sneeze pattern of the infant.

There was available no information on the grandmother's siblings, male or female. The grandfather, the father, and the young mother's two brothers showed only the usual sneeze pattern.

Since the publication of that paper four more children were born to the young mother, two boys, two girls. None of these showed any unusual sneeze pattern. In addition there were three slightly older step-children, two boys and one girl. The publication of the original paper aroused their interest and they spent much time and effort in attempting to learn to sneeze in pairs or triples. None succeeded.

The author employed hypnosis on a variety of Ss to teach them a double or triple sneeze pattern or any other variation from their established pattern. He also attempted by hypnosis to abolish the pattern of light-reflex sneezing shown by some people—that is, sneezing when stepping out of comparatively dim light into bright sunlight, or of responding by sneezing when an electric light is suddenly turned on. All such hypnotic studies resulted in only transient successes eventuating in failure, or else in no alterations at all.

In the years that have passed since the infant's noticeable sneezing pattern led to the publication of the observations, the infant has grown up and become the mother of a baby boy who also manifests his mother's, his grandmother's, and his now deceased great-grandmother's sneezing pattern, which remained in all of them a continued phenomenon. This child's father has a normal sneeze pattern. Obviously then, the pattern is not sex-linked as was originally tentatively suggested.

Since preparing this report a mother and her only daughter have been encountered, both of whom consider their double sneeze pattern as completely normal. The mother's parents and siblings, however, did not sneeze double and neither did the daughter's only

child, a son, nor her husband. The report was validated by the author's own observations and inquiries.

This paper may be concluded with the same final statements as the first study, namely, ". . . references may be made to the recent extensive experimental studies on the startle pattern of Landis and Hunt (1939, *The Startle Pattern*, New York: Farrar & Rinehart) who found that, 'Complicated bodily responses exist and are exhibited in a pattern-like fashion . . . startle, Moro reflex, sneezing, coughing, and so on,' and that the general pattern of these responses tends to remain constant regardless of age, sex, and race. To this may be added that variations in pattern may be inherited." One more statement can now be added, namely, that such variations are not necessarily a sex-linked inheritance.

# **Time Distortion in Hypnosis: I**

Linn F. Cooper

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Despite the fact that time perception is one of the most basic of human experiences, it is subject to wide variations. The commonest of these is observed in the dream, where the subject may experience many hours, or even days, of dream-life in the course of but a few minutes of solar time. Another instance of the distortion of time perception is found in cases where persons in danger have related how the scenes of their life passed slowly before their eyes in a matter of seconds or minutes. Such experiences are encountered by near-drowning persons or those having falls. Time passes more rapidly for the aging than for the young, and certain drugs, notably marijuana, are said to alter time perception. Disorders of time modality as a personal experience are found in organic brain lesions, the psychoses and psychoneuroses, and in delirium and toxic states. Pleasure may shorten the sensation of time, and pain increase it. "Time flies on Love's wings," and yet, "The watched pot never boils."

The following studies were begun in an attempt to determine whether or not time sense could be deliberately distorted in the hypnotized subject, and, if so, whether the subject could utilize "slowed" time by engaging in mental activity. As will be seen, an affirmative answer was obtained in both instances.

## **ABBREVIATIONS AND DEFINITIONS**

W. T.—world time—solar time as measured by watch or metronome.

P. T.—personal time—subjective, experiential, or psychological time.

E. P. T.—estimated personal time-estimate, by the subjects, of the length of an interval of their experiential time.

S. P. T.—suggested personal time—a time interval suggested to the subject under hypnosis, as in, "There will be 10 minutes between the two signals," or, "You will have 10 minutes for this."

A. T.—allotted time—the time, in world time, that is allotted to a test by the operator. It is not told to the subject. Thus it may be suggested to the subject that she will have 10 minutes for a problem, while the actual interval between signals is only 10 seconds.

D. R.—demonstrated rate—in the counting experiments the subject was frequently asked to demonstrate, by counting aloud, the rate at which she counted hallucinated objects. This was done both during trance and posthypnotic ally. In the former instances the subject had finished the test and was presumably not in a phase of response to suggestion.

(D. R.)(E.P.T.)—demonstrated rate multiplied by estimated personal time—a product used in the counting tests. It indicates the count that would be reached if the subject counted at the demonstrated rate for a period equal to the estimated personal time.

A description of a test will illustrate the use of these terms. Example: The following suggestions are given:

“You’re back on the farm and are going to churn some butter.”

“Tell me what you see.” (Subject describes the scene in some detail. She is sitting on the back porch, with a crockery churn half full of milk. She mentions the paddle with the “cross-piece on it,” and the hole in the top of the churn through which the paddle passes.)

She is interrupted at this point by the observer, who continues:

“Now just stay there for a while and listen carefully. You’re going to churn that milk, and it’s going to take you 10 minutes, which will be plenty of time. While churning, you’re going to count the strokes. I shall give you a signal to start and another signal, at the end of 10 minutes, to stop. Here comes the signal-Start.”

Three seconds later, by world time, the “stop” signal is given as follows: “Now stop. The 10 minutes are up.”

“Now make your mind a blank. Your mind is a blank.”

“Now tell me about it. Tell me what you did, how high you counted, and how long you were churning.”

She reports that she counted 114 strokes and churned for 10 minutes. Everything was very real to her. The churning became more difficult toward the end as the butter formed, and this slowed things down. She heard the churning and had plenty of time. At the “stop” signal the entire scene faded from view.

When asked to demonstrate, by counting aloud, the rate at which she operated the churn, she counted to 60 in one minute, adding that toward the end the strokes became slower because of the increased resistance from the butter. Continuing:

“I’m going to wake you up by counting to 10. You will remember all about this experience and tell me about it.”

On waking she is again asked to give a report. Her story is similar to the above, including the number of strokes counted, the time estimate, and the demonstrated rate.

In this example, then, the world time (W. T.) and the allotted time (A. T.) was 3 seconds, the suggested personal time (S. P. T.) 10 minutes, the estimated personal time (E. P. T.) 10 minutes, and the demonstrated rate (D. R.) 60 strokes per minute.

The product of the demonstrated rate times the estimated personal time (D.R.)(E.P.T.) is 600. Yet the subject insists that she took only 114 strokes, that she counted each stroke individually, and that she was occupied for the full 10 minutes. When asked, posthypnotically, about the discrepancy, she has no explanation to offer.

## **METHOD**

In brief an inquiry was made into the relations between the "world time" and the "subjective" or "experiential" time involved in various experiences suggested to the hypnotized subject. The "experiences" were listening to a metronome, counting hallucinated objects, and a diverse group of familiar activities. In some cases a time interval (S. P. T.) was suggested; in others, none. An "allotment of world time" (A. T.) was employed in many of the tests.

The subject was a young woman of 36 years of unimpeachable integrity, known to the writer for 10 years. She had had a high school education and worked as a secretary-stenographer. During the earlier tests she had no idea as to the purpose of the experiment, and accepted the suggested time intervals as real. Later she was told the truth and expressed great surprise. It was her first experience with hypnosis. The experiments were done daily for eight days and were consecutive except for an interval of one day between the first and second session. Hypnosis was induced 33 times, the trances lasting from five minutes to 45 minutes. Induction was very easy, and suggested experiences were clear and "very real." She not only "saw" clearly, but could "hear" conversations and other sounds, and could "feel" things she handled. She was unaware of odors or tastes. Emotions were "felt," sometimes spontaneously, and she was always aware of the passage of time. In comparing her suggested experiences to dreams, she described them as "making more sense," and added that "I lived them, whereas in a dream I'm more of an onlooker." It was noted that the simplest suggestions caused a rich and detailed hallucinatory production on all occasions. For this reason simple suggestions such as "You're standing in the street in Memphis" were generally employed, the subject spontaneously supplying details.

Invariably there was amnesia concerning the trance unless the suggestion was given under hypnosis that recollection would be retained posthypnotic ally. Such a suggestion was frequently given and is to be inferred wherever the subject is reported to have described her trance experiences while awake.

World time was measured by a stopwatch or a metronome.

“Personal time” was determined by asking the subject to estimate it.

Hypnosis was deep enough to produce amnesia, and catalepsy if suggested, but light enough to permit free discussion by the subject.

Because of the very nature of the experiments mathematical analysis cannot be applied to the results. The tabulation of measurements and calculations is done merely to show general trends.

### **METRONOME EXPERIMENT**

A metronome was started at one stroke per second, and the hypnotized subject was told the rate. The suggestion was then made that the metronome was being “slowed down” to one stroke per minute. The subject confirmed this apparent slowing. She was then told that she would be given a signal (tap on the forearm), at which time she would start to review in her “mind’s eye” some of her schooldays during the fifth grade, seeing in her imagination the school, the teacher, and her companions. She would do this for 10 minutes—that is, 10 strokes of the metronome—at the end of which time she would be notified to stop.

The metronome was stopped after 10 beats—10 *seconds*, world time—and the subject was waked up. On questioning, the following significant experiences were recounted:

- a. The metronome was most certainly “slowed down.”
- b. A good 10 minutes had elapsed between signals.
- c. She had “lots of time,” and saw clearly the school and her classmates.
- d. She expressed great surprise when told that the metronome had not changed rate and that actually her experience had taken only 10 seconds.

Observations similar to the above were repeated on numerous occasions, and subsequent studies showed the following:

- a. With the “suggested rate” of the metronome at one stroke per minute the subject, asked to count the strokes aloud, did so at a rate of about one every five seconds rather than one every 60 seconds.
- b. When the “slowed” metronome was stopped without the subject’s knowledge, she continued to “hear” it and count the beats.

From this it was concluded that the “slowing” of the metronome experienced by the subject was an hallucination of hearing, and that during this hallucination the actual striking of the instrument was inaudible.

## **EXPERIMENTS IN COUNTING**

There were two groups—an earlier one, Group A, made up of some 15 tests, and a later one, Group B, consisting of four tests, and which will be considered first. In all, a group of objects was suggested to the subject, and she was directed to count them.

### **Group B**

The technique employed is similar to that illustrated in the example given in the section on abbreviations. Table 2 shows the results of four tests run at one session. The following comments are in order:

- a. It is probably quite impossible for the average waking person to count 137 objects, "one by one," in three seconds of world time, much less 862 objects. Not only did the subject allege just this, but she insists that she did not hurry. For instance, in counting the cows she "walked around the edge of the field. They were very close together." With the cotton—"I used both hands and moved the bag accordingly. I picked only the ripe bolls, leaving the green ones alone. Sometimes I stopped and looked under the leaves to make sure that I had not missed any." We have already mentioned how the churning slowed down as the butter formed. It is quite obvious that the subject truly "lived" these experiences.
- b. The product (D.R.)(E.P.T.) is invariably larger than the count. In other words, if the subject had counted at the demonstrated rate for the estimated time, she would have counted far higher. Yet she insisted that she kept busy throughout. She had no explanation to offer for the discrepancy, nor do we.

### **Group A**

Prior to the above, many tests on counting had been run, but a different form of suggestion was used, and different signals. Table 1 shows the results of four of these. An example follows:

"You now see a bushel basket of potatoes."

"Now tell me what you see." (Subject here describes the scene.)

"When I give you the signal, those potatoes are going to be turned out onto the floor and you're going to count them. Take your time about it."

"I now raise your left arm. It will stay raised until you have finished counting, when it will drop to your side."

"Here's the signal—Start counting." And, as the arm dropped,

"All right, make your mind a blank. Now your mind's a blank." The time between the signals was noted and recorded.

The essential difference in the technique is that here, in Group A, no time interval is either allotted or suggested to the subject. She merely counts until the task is finished. Furthermore, whereas the signal to start is given by the operator in both groups, in Group A there is no true stopping signal, although the subject does indicate when she has finished by dropping her arm.

But why is there such a vast difference in rate of counting? It will be noted that in Group B the allotted time (A. T.) was rather short—three seconds. This figure was chosen because in other tests—i.e., taking walks—with a suggested personal time in one hour the task was completed in an allotted time of five and three seconds. When the allotted time was cut much below three seconds, however, the subject reported that she had been interrupted before her hour was up. Now, it is of great interest to note that in the Group B tests three seconds of allotted time (A. T.) sufficed, whether the suggested time (S. P. T.) was 10 minutes or an hour and 20 minutes. This makes one wonder whether, for a given individual, a suggested experience may not be “lived” within a more or less fixed interval of world time—i.e., three seconds.

We were unable to induce our subject simply to count at a specified rate. In response to the suggestion, “In the 10 minutes following the signal, you will count to 800. I’ll let you know when time is up,” the subject counted merely to 29 in 10 seconds, world time.

Group A included a number of counting tests. Objects counted other than those mentioned were books in bookcases, persons passing in a crowded street, sheep, houses passed while walking or driving, freight cars, sewing machine stitches, etc. There was almost always a marked discrepancy between the estimated personal time and the number of objects counted in that time. When asked about this, the subject not infrequently explained her slow counting by reporting that “I had to move the potatoes in the top layer before I could count the ones below,” or, “The cattle got in each other’s way at the gate,” or, “I had to get down on my knees to count the books on the lower shelves,” or “I had to lift the chicks out of the incubator and set them down on the floor as I counted, and that took time.” These reports were all obtained while the subject was awake. Special precautions were taken, incidentally, in all the reporting to make certain that the subject was not unconsciously adding new “experiences” to those she was supposed to be recalling from her trance. On repeated occasions reports taken during the trance were compared with those taken posthypnotically, and there were never any appreciable differences.

Notes concerning the counting tests:

- a. Where there was no allotted time or suggested personal time, that is, in Group A (Table 1) the counting rate in world time was slower than in Group B (Table 2), where there was an allotted time of only three seconds.
- b. As shown by the demonstrated rates, 36 to 76 for Group A and 60 to 80 for Group B, the subject thought that she was counting fairly slowly. Yet actually she was

- often "counting" very rapidly, the average rates being 204 and 6120 per minute for Group A and B, respectively.
- c. She "lived" these experiences, and they were, to her, very real. At no time was she aware of hurrying.
  - d. On posthypnotic interview she stated that the "counting" and the "thinking" she did during trance differed in no way from normal counting and thinking.

## **PROBLEMS**

In these tests the subject was presented with a problem to consider, and given both an allotted time (10 seconds, world time) and a suggested personal time (10 minutes) for its completion. The following example will illustrate the technique:

"I'm going to give you a problem to solve in 10 minutes. After I tell you the problem, you will receive a signal, at which you will start working on it. At the end of 10 minutes I shall give you the signal to stop. You will have plenty of time."

**TABLE 1**

<i>Group A</i>	<i>W.T.</i>	<i>S.P.T.</i>	<i>Count</i>	<i>E.P.T.</i>	<i>D.R.</i>	<i>(D.R)x (E.P.T.)</i>
Counting cows	65 sec.	—	664	30 min.	36/min.	1080
Counting soldiers	82 sec.	—	90	10 min.	72/min.	720
Counting churn strokes	100 sec.	—	115	10 min.	76/min.	760
Counting cotton bolls	<u>217 sec.</u>	—	<u>719</u>	<u>80 min.</u>	<u>56/min.</u>	<u>4480</u>
	464		1588	130	240	7040

Average rate of counting (world time)—count/W.T., 3.4/sec., 204/min.

Average rate of counting (subject's time)—count/E.P.T., 12/min.

Average demonstration rate (world time)—60/min.

See Table 2 for explanation of abbreviations.

**TABLE 2**

<i>Group B</i>	<i>A.T.</i>	<i>S.P.T.</i>	<i>Count</i>	<i>E.P.T.</i>	<i>D.R.</i>	<i>(D.R)x (E.P.T.)</i>
Counting cows	3 sec.	30 min.	137	30 min.	60/min.	1800
Counting soldiers	3 sec.	10 min.	112	10 min.	80/min.	800
Counting churn strokes	3 sec.	10 min.	114	10 min.	60/min.	600
Counting cotton bolls	<u>3 sec.</u>	<u>80 min.</u>	<u>862</u>	<u>80 min.</u>	<u>68/min.</u>	<u>5440</u>
	12	130	1588	130	268	8640

Average rate of counting (world time)—count/W.T., 120/sec., 6120/min.

Average rate of counting (subject's time)—count/E.P.T., 9.4/min.

Average demonstration rate (world time)—67/min.

W.T. – World Time

A.T. – Allotted Time

S.P.T. – Suggested Personal Time

E.P.T. – Estimated Personal Time

D.R. – Demonstrated Time

"Now here is the problem. A young girl is in love with a young man who wants to marry her. However, the girl has an invalid mother who is dependent upon her and to whom she feels obligated. She hesitates to marry because she does not wish to burden her fiancée with her mother, and yet she is very anxious to get married and does not wish to sacrifice her entire life to her mother. These young people want your advice."

"When I give you the signal, you're going to think this situation over from all points of view and afterward tell me what conclusion you came to." "Here comes the signal—Start."

Ten seconds, world time, later she was told, "Time is up. Now tell me about the problem."

The subject reported that she saw and talked to a young man and a girl about this, their problem. She discussed the matter at length with them, asking the girl various questions and receiving answers. She suggested that the girl work after marriage in order to support her mother, who, she felt, should not live with the young people but rather with some friend her own age. She did not think that the girl should give up her life to her mother, but on the other hand she shouldn't shirk her responsibility. She should marry by all means. She talked mostly to the girl. "The boy didn't have much to say."

Her account of this experience was amazing in the fullness of detail and the amount of reflection that it apparently indicated. This was especially surprising in view of the fact that in waking life the subject is not prone to speculate on matters. When told that she had thought the problem through, not in 10 minutes but rather in 10 seconds, she was astounded.

Numerous other problems were presented from time to time, among them the following:

- Should a young girl, daughter of well-to-do parents, seek a job?
- What are the relative merits of government and private industry employment?
- Are you in favor of compulsory military training?
- What do you think about segregation of the Negro in the South?

TABLE 3

<i>Activity</i>	<i>W.T.</i>	<i>S.P.T.</i>	<i>E.P.T.</i>
Walking	65 sec.	30 min.	30 min.
Picnic	130 sec.	"all day"	9 hrs.
Day's activities	115 sec.	day	9½ hrs.
Walking	10 sec.	none	30 min

See Table 2 for explanation of abbreviations.

**TABLE 4**

<i>Activity</i>	<i>S.P.T.</i>	<i>A.T.</i>	<i>E.P.T.</i>
Walk a.	1 hr.	5 sec.	1 hr.
Walk b.	1 hr.	3 sec.	1 hr.
Walk c.	1 hr.	1 sec.	"30 or 40 mins."

See Table 2 for explanation of abbreviations.

In every case the reports gave evidence of careful and thorough consideration, and the estimated personal time interval was always the same as the suggested one. She didn't have to hurry. She always "saw" something—that is, she saw and talked to the young couple; she saw the girl who was discussing the job; she saw a government office building and a factory; in considering the segregation problem she was watching a group of poor and shabby blacks in a small southern town. A fishbowl with names in it appeared while she was considering compulsory military training.

The last test done was given a suggested personal time of 10 minutes but an allotted time of only three seconds. The subject reported that she seemed to be working on it for 10 minutes, and gave a very complete account of her "thoughts."

### **OTHER EXPERIENCES**

All sorts of activities were suggested to the subject, among them the following: Reviewing previous periods of her life in her "mind's eye." Listening to a band. Taking walks. Going on picnics. "Reliving" periods of her life. Dreaming.

Sometimes she would be told to engage in a given activity for a suggested length of time, and to signal by dropping her raised arm when the time was up. Table 3 shows the relation between suggested personal time and world time in some of these cases.

Usually there was both an allotted time (A. T.) and a suggested personal time (S. P. T.), the interval being designated by signals. Almost without exception the subject's estimate of the interval was the one that had been suggested to her. However, where the A. T. was too short, the estimated personal time would be less than the suggested one "because you interrupted me before the hour was up." This led to a series of "one-hour walks" with gradually decreasing allotted times. "The walks," incidentally, were over the same "route" each time. Table 4 shows the results.

In one test the subject was simply told that a band was playing and that she was to listen to it. She was interrupted after 30 seconds and reported that she had been listening for nine minutes. No time had been suggested to her.

On several occasions dreams were experienced as the result of suggestion. Time in these dreams showed the same sort of distortion that is seen in normal ones. Their duration was indicated by the subject dropping her arm when the dream was over.

## **DISCUSSION**

We do not feel qualified to say what the nature of hypnotically induced experience is. What, if any, relation does the "counting," and the "thinking" of this subject, under hypnosis, bear to such activities carried out by her while awake? What is this amazing state of affairs that permitted this subject—"in her mind," of course, but with complete sense of participating—to pick and count 862 cotton bolls in three seconds, carefully selecting each one and occasionally looking beneath the leaves "to make sure that I had not missed any"? We do not know.

We are certain, however, that our subject's sense of time was altered, more or less at the will of the operator, and that in this altered time which he bestowed upon her she had experiences that were very real to her. These, while occurring at a normal rate as far as she was concerned, actually moved incredibly fast according to world time. Furthermore they were experiences that, to a considerable degree at least, "made sense." This in itself is indeed intriguing and causes one to wonder if, under hypnosis, judgments may not be made, and decisions arrived at, in a mere fraction of the world time ordinarily required. Also, it makes one wish that ideas could somehow be introduced into the human mind with a speed proportional to that of the mental activity of this hypnotized subject.

# **Time Distortion in Hypnosis: II**

Linn F. Cooper and Milton H. Erickson

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## **GENERAL INTRODUCTION**

In a previous communication (Cooper, 1948) findings were presented which indicated that time sense can be deliberately altered by hypnotic suggestion. Thus a 10-second interval by the clock might seem to be one of 10 minutes to the hypnotized subject. Furthermore the individual concerned might report that he had had an amount of subjective experience in the form of hallucinated activities, thought, feeling, and the like—all proceeding at a normal rate—that was more nearly appropriate to the subjective 10 minutes than to the brief 10 seconds recorded by the clock. One of the inferences from these results is that mental activity, under the conditions described, can take place at extremely rapid rates while appearing, to the subject, to progress at customary speeds. In the present paper a further inquiry is made into this phenomenon. After a brief consideration of time it proceeds to the presentation of experimental results, followed by an analysis of the findings and a discussion of their significance.

## **Notes on Time and the Concept of Time Distortion**

Einstein has made the following statement: The experiences of an individual appear to us arranged in a series of events; in this series the single events which we remember appear to be ordered according to the criterion of "earlier" and "later." There exists, therefore, for the individual, an I-time, or subjective time. This in itself is not measurable. I can, indeed, associate numbers with the events, in such a way that a greater number is associated with the later event than with an earlier one. This association I can define by means of a clock by comparing the order of events furnished by the clock with the order of the given series of events. We understand by a clock something which provides a series of events which can be counted. (Barnett, 1950).

While the hands of a clock move from one position to another, an infinite number of other changes take place in the cosmos. And wherever that phenomenon which we call awareness exists, there is probably a sense of the passage of time, and a sense of sequence. In other words subjective experience seems to be inseparably interwoven with time sense, which, as is true of other primary experiences, is indefinable. Yet we all know what it is, and we apparently conceive of it as a magnitude, for we speak of a long or a short time, and readily compare intervals one with another. And our perception of it as a magnitude differs from that of another magnitude—space—in a strange way. Time seems to be of us, and inseparable from our very existence. Furthermore one is tempted to think

of subjective time as extending from future to past in a direction at right angles, so to speak, to all other experience.

Although we cannot at present measure subjective time, we can gain some idea of the seeming duration of an event or interval by asking a person, "How long did it seem?" He may then reply, "It seemed like 10 minutes," meaning, of course, that his sense of the passage of time was approximately that which he generally experiences when the clock hands advance a certain distance—i.e., 10 minutes. Were we to inform him that actually the clock had advanced by only five minutes, he might reply, "It seemed longer than it was [by the clock]." Thus we all come to associate a certain quantity of subjective time with a given amount of movement of the clock hands. Exactly how we do this is not known, but certainly we are aided by observed changes in the physical world. At any rate it is common experience that a given world time interval may seem longer or shorter, depending upon the circumstances. When the difference between the seeming duration of an interval and its actual duration is great, we say that time distortion is present.

Time distortion is most commonly seen in the dream, where many hours of dream—life may be experienced in but a few minutes by physical time. Furthermore, the phenomenon is not infrequently encountered in times of danger or narrow escape, where intervals of but a few seconds may seem to be greatly prolonged. In such cases the long subjective interval may be filled with thoughts and images proceeding at an apparently normal rate, and movement in the physical world, actually often very rapid, may appear to be in "slow motion." It is by no means rare for the individual involved to report that in the emergency his performance was improved because he seemed to have more time for decisions.

There are numerous other conditions under which time distortion occurs. Thus a given interval may seem to be prolonged in the presence of pain, discomfort, anxiety, anticipation, or boredom. On the other hand it may seem shortened during pleasure, amusement, or interest.

The perception of time may be altered also by organic brain lesions, certain drugs, the psychoses and psychoneuroses, delirium, and toxic states. In general time seems to pass more rapidly for the aging than for the young.

Welch (1935-1936) has made a study of time distortion in hypnotically induced dreams, and Erickson (1937) has reported the phenomenon in a hypnotized subject who was reliving past events. Inglis had a subject who claimed to be able to bring about an apparent slowing of observed physical phenomena at will, and to have employed this ability to advantage while boxing, when it aided him in placing blows.

Finally, time sense can be deliberately altered by hypnotic suggestion and a predetermined degree of distortion thus effected, as reported in an earlier communication.

Finally, time sense can be deliberately altered by hypnotic suggestion and a predetermined degree of distortion thus effected, as reported in an earlier communication.

Depending upon the circumstances, certain changes in subjective experience may accompany time distortion. The following outline present some of the more important of these:

**The Narrow Escape:**

A given world time interval seems prolonged.

**Sensory experience:**

All sensory experience may seem to be slowed down, action appearing to occur in "slow motion." Actually, high speeds in the physical world are often involved.

**Non-sensory experience:**

Thought, imagery, etc., are often much increased in amount per unit of world time. As far as the person involved is concerned, the activity seems to proceed at a normal rate.

**The Dream:**

A given world time interval may seem much prolonged.

**Sensory experience:**

Physical stimuli are usually not experienced as such.

**Nonsensory experience:**

Much dream activity may take place in a short world time interval. This activity appears, to the dreamer, to proceed at the normal rate.

**Hypnosis (with "slowed" time):**

A given world time interval may seem much prolonged.

**Sensory experience:**

In the few cases where sounds have been "injected" into hallucinatory experiences, their apparent duration was increased.

**Nonsensory experience:**

Much activity may take place in a very short world time interval. This activity appears, to the subject, to proceed at a normal rate.

**Boredom:**

A given interval seems prolonged.

**Sensory experience:**

No change.

**Nonsensory experience:**

No change.

## **DEFINITIONS AND ABBREVIATIONS**

P.T. —personal time—I-time-subjective, experiential, or psychological time.

E.P.T. —estimated personal time—estimate, by subjects, of the length of an interval of their experiential time.

S.P.T. —suggested personal time—a time interval suggested to the subject under hypnosis. In these experiments the subjects came to think of this as "special

time." Hence such expressions as "You're going to spend 20 minutes of your special time . . ." were frequently used.

A.T.—allotted time—the time, in world time, that is allotted to a test by the operator. It is not told to the subject. Thus it may be suggested to the subjects that they will have 10 minutes for a problem, while the actual interval between signals is only 10 seconds.

D.R.—demonstrated rate—in the counting experiments the subjects were frequently asked to demonstrate, by counting aloud, the rate at which they counted hallucinated objects. This was done both during trance and posthypnotically. In the former instances the subject had finished the test and was presumably not in a phase of response to suggestion.

(D.R.) (E. P. T.)—demonstrated rate multiplied by estimated personal time—a product used in the counting tests. It indicates the count that would be reached if the subject counted at the demonstrated rate for a period equal to the estimated personal time.

(D.R.) (W.T.)—demonstrated rate multiplied by world time—the count that would be reached if the subject counted at the demonstrated rate for a period equal to the world time.

Time Distortion—a marked difference between the seeming duration of a time interval and its actual duration as measured by the clock.

A description of a test will illustrate the use of these terms:

"You now see a large bag full of jelly-beans on a table. . . . Now tell me what you see." The subject describes the scene.

"Stay there, please, and listen to me. When I give you the starting signal by saying 'Now,' you're going to spend at least 10 minutes (of your special time) taking them out of the bag one at a time, counting them as you do so, and placing them on the table in piles according to color. Please don't hurry. At the end of 10 minutes I'll give you the signal to stop." "Here comes the starting signal. 'Now.'"

Ten seconds later—"Now make your mind a blank please. Your mind is now a blank. Tell me about it, please."

The subject reports that he counted 401 candies and gives the approximate number in the black, white, and red piles. Others were blue, yellow, green, and pink. He tells how the piles were located, and notes that some of the black ones fell on the floor. He tells of wondering whether the spotted white ones, which he used to know as "bird's eggs," are still flavored with banana. He counted "one by one," without hurrying, counting for what

seemed to be about eight minutes. There were no omissions. When asked to demonstrate, by counting aloud, the rate at which he worked, he counts to 59 in one minute.

In this example, then, the world time (W.T.) and the allotted time (A.T.) was 10 seconds, the suggested personal time (S.P.T.) 10 minutes, the estimated personal time (E.P.T.) 8 minutes, and the demonstrated rate (D.R.) 59 per minute.

## SUBJECTS

The subjects were divided into two groups, an earlier one of four, which worked for a period of seven weeks, and a later one of two, which worked a little over a week. All except one had had a college education. All were much interested in the experiments, cooperative, and eager to improve their performance. They were paid by the hour.

Subjects A, B, C, D were not informed concerning the nature of the problem until the end. With subjects E and F, on the other hand, this was discussed at the start.

Table 1 gives further information about them.

## METHODS

In essence the experiments consisted in suggesting to the hypnotized subjects that they perform certain hallucinated activities and in studying the relationship between the experiential and the physical time involved. In the majority of tests an allotted time (A.T.) was used. In a few instances the hallucinated activity was explored by means of injected sound signals.

TABLE 1

Subject	Age	Sex	Marital	Education	Occupation	Interest	Number of tests	Experimental hrs.	Prev. hypnosis
A	25	M	M	College	Student	Psychology	213	39½	Some
B	23	F	M	College	Student	Psychology	202	31	None
C	23	F	S	College	Student	Psychology	184	32	5 hrs.
D	32	F	M	College	Teacher	Music	139	35	None
E	18	F	M	High School	Housewife		41	12	None
F	28	M	M	College	Student	Psychology	29	7	Some

There follows a partial list of the activities used:

- Buying various things
- Counseling
- Counting various objects
- Dancing
- Dreaming
- Free association
- Group discussion
- Housework
- Listening to a metronome
- Listening to music

Making decisions  
Mathematics  
Painting  
Sewing  
Seeing movies and plays  
Thinking  
Walking and riding  
Watching games  
Writing letters

Induction of a simple trance state was effected by suggestions of sleep. Posthypnotic amnesia was routinely suggested with the earlier group of subjects, but was only partially successful. The later group was told that they could remember the trance experiences if they so desired.

As a rule the suggestions were read from cards to insure uniformity. Timing was done with a stopwatch. There were two kinds of sound signals used, one the striking of a (damped) tumbler with a metal knife; the other a note on a pitch instrument.

The work was done in the afternoon, the usual session lasting an hour. During trance the subjects lay supine on a bed with their eyes closed.

### **Notes on Suggestions**

In the following discussion a completed activity is one which progresses to the fulfillment of certain stipulated or implied conditions (none of them concerning the duration), at which point it reaches completion. Examples are drawing a picture, making some toast, counting a given number of objects, walking a certain distance, etc. Incomplete, or continuous, activities are those which do not progress to such a limit.

It will be noted that we have defined the completed activity as being limited by considerations other than duration. This is done in order to permit a special treatment of the time factor.

The degree of time distortion and the amount of subjective experience occurring within the experiential time interval depend upon various factors. Important among these are the absence of presence of an allotted time (A.T.) and its duration, the assigning of an incomplete or a completed activity, and the absence or presence of a suggested personal time (S.P.T.) and its magnitude. A classification of suggestions according to these considerations will be given below.

Suggestions were introduced by the expression, "Now give me your attention please. When I give you the starting signal by saying 'Now,' you are going to . . ." The activity itself was then suggested. If it was felt advisable to "clear" the subjects' minds of residual scenes before the above introductory statement, they were told, "Now any scenes that

you've been witnessing are disappearing from view. They have now disappeared, and your minds are now a blank."

The method of termination of an activity depended upon the absence or presence of an allotted time.

(a) In the absence of an allotted time (A.T.), and when the suggested activity was a completed one, the subjects were instructed to notify the operator when they had finished the assignment. They were told, "When you've finished, you'll let me know by saying 'Now.'" This was also done with incomplete activities without an allotted time (A.T.), which were always given a suggested personal time (S.P.T.) in these experiments.

(b) In the presence of an allotted time (A.T.) the termination of the activity was, of course, brought about by the operator. It was our practice to say nothing to the subjects concerning the fact that they would be told when to stop. One may, if one wishes, say, "After a while I'll tell you to stop." Or, in those cases where a suggested personal time (S.P.T.) is used, "At the end of so many minutes [constituting the S.P.T.], I shall tell you to stop." The actual terminating suggestion, given when the allotted time (A.T.) had expired, was "Now make your mind a blank. Your mind is now a blank." No mention of the allotted time (A.T.) as such was ever made to the subjects while in trance.

In assigning a suggested personal time (S.P.T.) to an activity the following form was used: "—you're going to spend (at least) 10 minutes (of your special time) watching a baseball game." The phrases in parentheses were used frequently in the later experiments. The "at least" gives a certain leeway to the subject, and the "special time" gives expression to the uniqueness of distorted personal time, a concept which the subjects came to appreciate of themselves.

In the classification of activity suggestions, code designations are built upon the following symbols:

- A.T.0—no allotted time was used.
- A.T.+—an allotted time was used.
- A—an incomplete activity.
- B—a completed activity.
- 1—no mention is made concerning the duration of the activity.
- 2—subject is told, "You'll have plenty of time," or, "There'll be plenty of time."
- 3—a definite suggested personal time (S.P.T.) is assigned.

Thus A.T.0, Al means that no allotted time was used, that the activity was incomplete, and that no stipulation was made concerning its duration.

## **Classification of Suggestion Types**

- I. Without Allotted Time.
  - Incomplete Activity.

Without suggested personal time. (Code A.T.0,A1.)

“—you’re going to go walking.”

With suggested personal time (Code A.T.0,A3.)

“—you’re going to walk for 10 minutes.”

Completed Activity.

Without suggested personal time. (Code A.T.0,B1.)

“—you’re going to draw a picture.”

With suggested personal time. (Code A.T.0,B3.)

“—you’re going to spend ten minutes drawing a picture.”

## II. With Allotted Time.

Incomplete Activity.

Without suggested personal time.

(Code A.T.+,A1.)

“—you’re going to go walking.”

With suggested personal time. (Code A.T. +,Ae).

“—you’re going to spend 10 minutes walking.”

Completed Activity.

Without suggested personal time. (Code A.T.+B1.)

“—you’re going to draw a picture.”

With suggested personal time. (Code A.T. +,B3.)

“—you’re going to spend ten minutes drawing a picture.”

Termination suggestions.

I—as in paragraph (a) above.

II—as in paragraph (b) above.

After a test activity was finished, the subjects were asked to report on their experience. The following form of request was used: “Now tell me about it please,” or, “Now tell me what you did.”

Other questions were then asked, such as the following:

“Was it real?”

“Were there any omissions or gaps?”

“Did you hurry?”

“How long was it?” —“How long did it take?” —“How long did it seem?”

“Were you aware of the sound signal?”

“How high did you count?”

“Did you enjoy it?”

# RESULTS

## Introduction

In these experiments the results consist of the reports of our subjects plus the actual time observations by the experimenter. The reports in turn are descriptions of subjective experiences while responding to suggestions in hypnosis. So amazing are they, when their time relations are considered, that the opinion has been expressed in connection with

previous, similar work that the subjects, in reporting, probably resort to retrospective falsification, elaborating on a very meager original experience in order to please the operator.

Thus we are faced at the start with the question—"Did these subjects really have the experiences they say they had?" The question is one of the utmost importance and is, by its very nature, most difficult to answer. The difficulty arises from the fact that purely subjective phenomena cannot be shown to another person and thus proven to exist by demonstration. It is true that, because we all claim to have such experiences as dreams, emotion, thought, sensation, and the like, we readily grant that our neighbors also have them. Consequently these phenomena have come to be accepted as realities that are experienced by mankind as a whole. However, the sort of experience reported in this and in a previous paper has been had by too small a group to attain acceptance in this manner. Moreover we cannot at present know these alleged phenomena "by their fruits," for they have not yet been correlated sufficiently with behavior, nor has "operational" mental activity yet been demonstrated to occur more rapidly in "prolonged" time than normally.

The best we can do under the circumstances is to give an account of our subjects' reports, which are fairly numerous and uniform, and to hope that the reader will find them interesting and will speculate upon their significance. Indeed, our ignorance of the nature of subjective phenomena *per se* is abysmal. Yet in a sense these are the most "real" part of existence. Our relatively great knowledge of the physical world has been won largely as the result of our ability to apply to it the process of measurement. This process, unfortunately, can be used only indirectly in the study of the subjective time to be in the nature of a magnitude—which won't stand still long enough to be measured. It is obvious that we need some other tool for our work, possibly a tool of new and strange design.

Table 2 gives some of the significant data on certain tests. These were selected because they show the performance of the subjects at their maximum proficiency after adequate training.

## **Generalizations from Results**

The following generalizations can be made on the basis of our results.

There is a marked difference between subjects as regards their ability to produce the various phenomena under study. This is to be expected, and it is mentioned here in order to call attention to the fact that the amount of training required is variable within wide limits. Thus one subject may require only three hours training while another may require 20.

In all cases the reports were simple narrative accounts of a recent experience, given in much the same way as any waking person might go about answering the request, "Tell me what you did this morning?" The amount of detail varied with the individual. Because of the time required for complete reporting, the subjects were usually asked to be brief.

All subjects showed the phenomenon of time distortion, and all were able to engage in mental activity during the prolonged subjective time intervals. This activity proceeded at a rate considered normal or usual so far as the subject was concerned, yet its amount was greatly in excess of what the world time interval would ordinarily permit.

**TABLE 2**

Subject	Code	Activity	W.T.	A.T.	S.P.T.	E.P.T.	Count	D.R.
A	A.T.0 B1	Walking one mile	59"			13'		
A	A.T.0 B1	Watching movie short	1'35"			12'		
A	A.T.0 B1	Walking to school	1'			20'		
B	A.T.0 B1	Walking to school	6"			20'		
B	A.T.0 B2	Painting a picture	1'			15'		
B	A.T.0 B1	Counting 200 flowers	53"			15'	200	
C	A.T.0 B1	Listening to music (piece)	43"			10'		
C	A.T.0 B1	Walking to school	3'26"			30'		
A	A.T.+ A1	Group discussion		1'		13'		
A	A.T.+ A1	Reliving		1'		1 hr. 35'		
A	A.T.+ A1	Reliving		20"		15'		
B	A.T.+ A1	Group discussion		1"		10'		
B	A.T.+ A1	Free association		1'		15'		
B	A.T.+ A1	Picnic		2'		20'		
C	A.T.+ A1	Group discussion		20"		14'		
C	A.T.+ A1	Shopping		20"		10'		
D	A.T.+ A1	Watching races		10"		5'		
A	A.T.+ B1	Considering problem		1'		20'		
A	A.T.+ B1	Counseling		10"		12'		
B	A.T.+ B1	Morning routine		10"		10'		
B	A.T.+ B1	Making a pie		1'		15'		
B	A.T.+ B2	Swim		1'		25'		
C	A.T.+ B1	Counseling		20"		10'		
C	A.T.+ B1	Counseling		10"		10'		
D	A.T.+ B1	Listening to music (piece)		20"		5'		
D	A.T.+ B1	Watching ballet (scene)		20"		10'		
D	A.T.+ B1	Problem		1'		15'		
A	A.T.+ A3	Watching football game		10"	10'	10'		
A	A.T.+ A3	Counting candies		10"	10'	8'	402	60
B	A.T.+ A3	Visiting friends		10"	10'	5-10'		
C	A.T.+ A3	Counting candies		10"	10'	10'	127	
D	A.T.+ A3	Watching races		10"	10'	10'		
D	A.T.+ A3	Swimming		10"	10'	8'		
D	A.T.+ A3	Dancing		10"	10'	10'		
A	A.T.+ B3	Counting pennies (50)*		10"	10'	3'	28	19
A	A.T.+ B3	Considering a decision		30"	1 hr.	1 hr.		
C	A.T.+ B3	Counting flowers (150)*		10"	10'	10'	145	
C	A.T.+ B3	Counting pearls (200)*		10"	10'	10'	100	

W.T.—world time.

E.P.T.—estimated personal time.

A.T.—allotted time.

D.R.—demonstrated rate, in terms of items counted per minute

S.P.T.—suggested personal time.

\*—subject to count at least this number.

In all cases performance improved with practice.

All four subjects who worked with the metronome were able to effect marked slowing of the instrument. With two of these, practice was required.

Four out of the five subjects who practiced counting activities during time distortion achieved satisfactory results. The fifth had difficulty but showed progressive improvement, and there is reason to believe that she would succeed with further training.

All subjects were astonished by the things they did, some of them strikingly so, when informed of the facts.

Sound signals could be introduced into hallucinated experiences in all cases in which this was tried with sufficient care. Their position in the experiential time interval corresponded fairly well to that in the world time interval.

## **Individual Reports**

The following two case reports are presented:

(1) "What would you like to do now?"

"My husband molds bullets for his gun. I could be counting them as he makes them."

"For how long do you want to do this?"

"For 10 minutes."

The following suggestions were then given:

"When I give you the starting signal by saying 'Now,' you're going to spend at least 10 minutes of your special time counting bullets as your husband makes them."

"If the sound signal is given, you will be aware of it."

"Here comes the starting signal—'Now.'"

The pitch instrument was sounded from the fourth to the seventh second.

At the end of 10 seconds—"Now make your mind a blank. Your mind is now a blank."

"Now tell me about it."

"It was at a molding party of the club. There was quite a crowd there. I counted for maybe six minutes and ran out of bullets, so I waited for more. I didn't count the full 10 minutes. While I was counting them, this other boy walked up—he was talking and

waving his arms. The pot of lead tipped over. It burned his foot rather badly. I got up but then sat down again and continued counting. The others were running all over the place. The remainder of the lead we put back on the stove. I counted 493. That's when I stopped and waited. Then later I got up to 546. “

“Did you hurry?”

“I didn’t hurry too much as I was counting, but I kept busy.”

“Was it real?”

“Yes.”

“When I give you the signal to start, please show me, by counting aloud, how you counted the bullets. Now.”

Subject counted at a rate of 54 per minute. “Were you aware of the sound signal?”

“When they spilled the lead, it sizzled a lot.”

“How long was the sizzling?”

“It seemed like three or four minutes.”

(This interpolation of the sound signal into the hallucinated activity will be discussed later.)

(2) “What would you like to do now?”

“To package some cookies. I used to do this.”

“For how long?”

“Twenty minutes.”

The following suggestions were then given.

“When I give you the starting signal by saying ‘Now,’ you’re going to spend at least 20 minutes of your special time packaging cookies. As you do this, you’ll count them. If the sound signal is given, you will be aware of it. Here comes the starting signal—‘Now’.”

The pitch instrument was sounded from the fifth to the eighth second.

At the end of 10 seconds—“Now make your mind a blank. Your mind is now a blank.”

“Now tell me about it please.”

"I was down in the basement. There were worktables. I was counting. I counted them as I put them in the smaller sacks. I counted 1,003. That was all I got. In the middle the telephone outside rang on and on. Just after that there was so much cookie dust all over that I started to sneeze. I sneezed 10 or 12 times. I just couldn't stop. I dropped one package. I didn't answer the phone."

"When I give you the signal to start, please show me, by counting aloud, how you counted the cookies. 'Now'."

Subject counted at a rate of 60 per minute. "How long did the telephone ring?"

"It must have been five or six minutes. No one answered it outside." "When I say 'now,' please recall parts of the scene and see if you can tell me what the count was when the phone started ringing and when it stopped."

"It was about 498 when it started, and 889 when it stopped."

"Was it real?"

"Yes."

"Were there any omissions?"

"None."

"How long was it?"

"Probably 23 minutes."

The code designation for the two above tests, and for the one below, is A.T. +,A3.

The following account gives one an idea of the richness of these subjective experiences:

Having said that she would like to spend a half hour riding in an automobile, the subject told how she and her sister, both children at the time, sat on the back seat of the car and counted cows seen along the way. Her sister won the game, counting 45 to her 42. Then they decided to count license numbers bearing the letter C. This was slow, for there was but little traffic. They both saw the same ones, 14 in all. Then they stopped at a roadside stand to buy lemonade from a little girl with pigtails and several missing teeth because they "felt sorry for her." The experience was continuous, without omissions of any kind, and seemed to last "a half hour easy." Asked if she enjoyed it, she replied, "Oh yes!" Actually this elaborate response to the simple suggestion "You're going to spend at least a half-hour of your special time riding in an automobile, and it's going to be a nice ride," took place in an allotted time of 10 seconds.

## **Counting**

By far the most dramatic results were those obtained in the counting experiments. These were usually run as incomplete activities, with a short allotted time (A.T.) and a moderately long suggested personal time (S.P.T.) In a few instances, however, the suggestion was put in the completed form by saying,

“Since you can easily count 30 in a minute, you will have no difficulty counting at least 300 in 10 minutes. Please take your time and don’t hurry.” This was generally done during training in an attempt to utilize the performance-increasing value of the completed activity.

Generally the subjects were given a “preview” of their surroundings in the following manner:

“You now see several large bags of gum drops on a table. Please tell me what you see.”

Then, after a brief description by the subject, “Stay there now, and listen to me.”

The activity suggestion was then given.

Table 3 shows the more important data on the counting tests done after proficiency had been attained.

It will be noted that the count, although much greater than the product (D.R.) (W.T.), is almost invariably less than (D.R.) (E.P.T.). Sometimes the subjects had no explanation for this. At other times they ascribed the discrepancy to the fact that part of the time was occupied otherwise than by counting.

TABLE 3

Subject	Code	Counting	A.T.	S.P.T.	E.P.T.	Count	D.R.	D.R x E.P.T.
A	A.T.+ A3	Flowers	10"	10'	8'	140		
A	A.T.+ A3	Flowers	10"	10'	7'	41	48	336
A	A.T.+ A3	Flowers	10"	10'	1-'	35	42	420
A	A.T.+ A3	Pennies (50)*	10"	10'	3'	28	19	57
A	A.T.+ A3	Potatoes	10"	10'	5'	165	60	300
A	A.T.+ A3	Candies	10"	10'	5'	140	60	300
A	A.T.+ A3	Candies	10"	10'	8'	402	60	480
A	A.T.+ A3	Candies	10"	10'	3'	75	60	180
C	A.T.+ B3	Flowers (150)*	10"	10'+	10'	145		
C	A.T.+ B3	Pearls (200) *	10"	10'	10'	100		
C	A.T.+ As	Candies	10"	10'	10'	127		
C	A.T.+ A3	Candies	10"	10'	8'	49		
C	A.T.+ A3	Candies	10"	10'	10'	127		
E	A.T.+ A3	Flowers	20"	20'+	20'	115	54	1080
E	A.T.+ A3	Flowers	20"	20'+	20'	40	35	700
E	A.T.+ A3	Strawberries	20"	60'+	50'	600		
E	A.T.+ A3	Tomatoes	20"	60'+	40'	225		
E	A.T.+ A3	Bullets	10"	10'+	10'	546	54	540
E	A.T.+ A3	Flowers	10"	15'+	15'	973	60	900
E	A.T.+ A3	Cookies	10"	20'+	23'	1003	60	1380
F	A.T.+ A3	Nuts	20"	20'+	20'	400	66	1320
F	A.T.+ B3	Candies (200)*	10"	10'+	60'	2500	72	4320
F	A.T.+ A3	Flowers	10"	10'+	10'	60		

W.T. —world time.

E.P.T. —estimated personal time.

A.T. —allotted time.

D.R. —demonstrated rate, in terms of items counted per minute

S.P.T. —suggested personal time.

\*—subject to count at least this number.

+—time suggestion was preceded by the phrase “at least.”

## Sound Signals

The idea of exploring hallucinatory activities by means of injected sound signals was suggested to us by Dr. J. B. Rhine.

In one group of tests the subjects were told to take a familiar walk—from house to school. No allotted time (A.T.) or suggested personal time (S.P.T.) was used. Thus the code designation is A.T.0, Bl. A single short sound signal, produced by striking a damped glass with a metal knife, was employed at various intervals from the start. The subjects were then asked to estimate, at the end of the test, the personal time of the entire experience and the approximate location of the sound signal. The latter they usually did by considering where, in their walk, they were when they heard the signal. The accompanying figure shows the relation of the signal to world and experiential times. In other cases a pitch instrument was sounded for a known length of time during an activity with an allotted time. The subject was later asked to estimate its duration. Some of the results are shown in Table 4.

The pairs of lines represent the world time interval (a) and the personal time interval (b) for a given test. The markers show where the sound signal actually occurred in relation to the world time interval (on lines a), and its location in the personal time interval (on lines b), as determined by asking the subject how long it seemed from the beginning of the activity to the signal. Note that the subject locates the signals with fair accuracy. The chart above is based on the following data:

	World Time (secs.)		Estimated Personal Time (min.)	
	Signal	Total	Signal	Total
Subject A				
(1)	60	155	5	12
(2)	20	105	1.5	10
(3)	60	164	3.5	12
(4)	90	192	5	12
(5)	120	252	5	12
Subject B				
(1)	60	133	10	20
(2)	90	135	14	20
(3)	110	133	17	20
(4)	30	107	4	20
Subject C				
(1)	30	163	3	30
(2)	120	137	28.5	30
(3)	60	159	13	30
(4)	90	210	17	37
(5)	46	196	4	30

TABLE 4

Subject	Activity	Code	A.T	S.P.T	E.P.T	Sound Signal		
						Time	Appearance Form	Est. Duration
E	Baking cake	A.T. + B3	15"	15'	10'	5 <sup>th</sup> to 10 <sup>th</sup> sec.	Auto horn stuck	3' or 4'
E	Mowing lawn	A.T. + A3	10"	10'	10'	3rd to 5 <sup>th</sup> sec.	Squeaking	2'
E	Counting bullets	A.T. + A3	10"	10'	10'	4 <sup>th</sup> to 7 <sup>th</sup> sec.	Sizzling lead	3' or 4'
E	Picking flowers	A.T. + A3	10"	15'	15'	5 <sup>th</sup> to 8 <sup>th</sup> sec.	Bird singing	5'
E	Embroidering	A.T. + A3	10"	15'	15'	4 <sup>th</sup> to 7 <sup>th</sup> sec.	Radio static	3' or 4'
E	Counting cookies	A.T. + A3	10"	23'	23'	5 <sup>th</sup> to 8 <sup>th</sup> sec.	Telephone ring	5 or 6'
F	Watching basketball	A.T. + A3	10"	5'	5'	5 <sup>th</sup> to 6 <sup>th</sup> sec.	"Funny noise"	1'
F	Picnic	A.T. + A1	20"	20'	10'	10 <sup>th</sup> to 15 <sup>th</sup> sec.	"Like a train"	'Quite a while'

The subjects, even though forewarned, were not always aware of the sound signal, and when they were, it was experienced in various forms.

Striking the glass, to some subjects, sounded exactly as it does normally and did not take on any significance in the hypnotic scene. More often, however, it was heard, as a somewhat similar sound, such as a tumbler dropping on the floor, one striking the side of the pitcher, an object falling on a hard surface, etc. Sometimes, however, the actual sound signal acquired an entirely different significance, e.g., the sizzling of the lead and the ringing of the telephone noted above.

Since the subjects had been led to expect a sound signal, they quite possibly anticipated it and included appropriate "properties" in their hallucination. Thus in three successive counseling scenes glass was present either as a tumbler or a pitcher.

Even so there is much food for thought here, for an object must fall before it can strike the floor and make a noise, and there must be some cause for the fall. Somehow or other all this is arranged in a most skillful way. Interestingly enough, to one subject the sound signal came just as he struck a pole with a stick. After telling about it he added, "I had anticipated hitting the pole, for I saw it in the distance." It may be that there is a definite lag between the communication of the signal to the brain and its entry into the hallucinated world as an appropriate part of the picture.

Similarly with the pitch instrument, at times it was unchanged, but more often it was altered.

The presence in our group of two musicians, one with "absolute pitch," gave us the opportunity of determining whether a sound, coming into the hallucinated world of altered time sense, would itself be altered in tone, i.e., lowered, by virtue of the new time relations. (Suggested by P. F. Cooper, Jr.). The answer apparently depends upon the degree to which the sound is disguised. In hallucinations where it was heard as a horn and an air-raid "all clear," the pitch was recognized as C. Usually, however, there was little resemblance to the original, the pitch instrument being heard variously as a bird, a fan, a squeaky lawnmower, the buzzing of a crowd of people, etc.

Of considerable significance is the fact that almost always the duration of the sound seemed much longer than it actually was. This is what we would expect in the presence of time distortion and in a way confirms the reports of the subjects. Here too we have the awareness of a physical phenomenon during time distortion, and the event seems to be slowed. Compare this with reports from persons following a narrow escape, who may say that world events appeared to be in "slow motion."

Not always was the intruder welcome, for on several occasions the hallucination was completely destroyed. On others the subject would become "nervous," irritated, or apprehensive.

In fact one subject reported that in subsequent walks, whenever he passed the spot at which he had previously been "jolted" by the sound signal, he had a sense of impending trouble. Here apparently we have an instance of conditioning to a hallucinated environment. This is evidence of the subjective reality of the experience.

## **Metronome**

Initially a metronome was started at 60 strokes per minute, and the following suggestion then given: "You now hear a special variable speed electric metronome striking at 60

strokes per minute. Please listen to it. - - - I'm soon going to slow it down gradually. When it's going very slowly, please let me know by saying 'Now.'"

At varying intervals thereafter this suggestion might be given—"It's going slower and slower, slower and slower—."

The metronome, of course, continued at its initial rate of 60. Three of the four subjects who were thus tested reported marked slowing. However, for one of these, the slowing did not always occur.

Next four subjects were trained to "imagine" that they were listening to a metronome. This was accomplished with little difficulty. The following suggestions were then used:

"When I give you the starting signal by saying 'Now,' you're going to imagine that you hear that metronome beating at 60 strokes a minute. As you listen, it will go slower and slower. It will slow down fairly rapidly. When it's going very slowly, you'll let me know by saying 'Now.' As you listen, you will count the strokes to yourself."

All four subjects reported marked slowing, usually after an interval of less than two minutes. Along with this they almost always had visual hallucinations, generally involving a metronome. In the case of some subjects these were bizarre and elaborate and included pendulums with sliding weights, large and small hammers striking in counterpoint, flexible and adjustable shafts, men swinging hammers or beams, airplanes looping, etc. The subjects were asked to state the count and to demonstrate the initial rate and the rate during the last five or ten beats. The count generally averaged much less than 60 per minute.

Finally all four subjects were again allowed to listen to the real metronome and were given the suggestion noted in the first paragraph of this section, plus instructions to count the strokes to themselves. No further "slowing" suggestions were given. All reported slowing, and there was usually an appropriately low count. Actually the rate was unchanged.

There were, however, occasional reports in the last two exercises described above where the subject reported marked slowing although the count was not proportionately reduced. In view of the fact that these subjects could very closely approximate a rate of 60 per minute, the conclusion is inescapable that there was a purely subjective lengthening of the interval between sounds, whether real or hallucinated. Two of the subjects studied in previous experiments, incidentally, showed the same phenomenon.

## **Review and Practice**

A few pilot experiments were run in an effort to learn whether our subjects could review for a history examination in distorted time. The results were inconclusive, but it led one of them, a professional violinist, to attempt to review certain pieces and to practice these

while in a self-induced trance, using her “special time” for this purpose. Her own account of the procedure follows.

I put myself into a trance and then practiced in several different ways. I might see the music before me and mark the spots that needed extra practice. I would then play the different spots over and over until I got them—which helped my finger memory because I was actually playing in the trance. [This was hallucinated activity only. In other words she was “actually playing” only in the hallucinated world and did not in the physical world.]

I did “passage practice”—picking hard passages and playing them in several ways to facilitate speed and accuracy.

Then I went through the whole composition for continuity. In doing this in “special time” I seemed to get an immediate grasp of the composition as a whole.

Thus she was able to practice and review long pieces over and over in very brief world time periods, and she found that not only did her memory improve strikingly, but also her technical performance. This remarkable result is attested to by her husband, himself a musician. In other words she felt that hallucinated practice of these pieces, learned years ago, improved her subsequent performance.

It is impossible at present to evaluate these reports which, if confirmed, carry important implications for facilitation of the learning process. They suggest at least two possibilities for making use of distorted time in the hypnotized subject.

The first is that the memorizing of new material might be speeded up by hallucinating the frequent repetition, either in visual or auditory form, of whatever is to be learned. The second, of course, is that hallucinated practice and review be used to aid in the acquiring of new motor skills. So important are these considerations that we feel obliged to mention them, however far-fetched they may be, for their experimental investigation is fairly simple.

## Coincidental Happenings

Not infrequently certain fortuitous and sometimes unwelcome things occurred and were reported. They are listed here because they so convincingly bespeak the reality of these experiences, all of which occurred during time distortion. While rowing a boat, the subject lost an oarlock.

While picking up shells, he stepped on a jellyfish.

While getting out of the way of an automobile, he tripped over the curb. “Mother helped me on with my coat. It wouldn’t button. Dad buttoned the vest.”

In changing a tire he found only three lugs in place. Later he found the fourth one in the hubcap.

“I hurried to get past a hayfield which was irritating my nose.”

In changing electric light bulbs, the one he threw into the scrap-basket broke.

While drilling, the man next to him “passed out” from heat prostration.

Asked to sing a hymn in church, “I stood on the platform and announced to the Baptists that I was going to sing a Jewish chant. I sang it all the way through.” (In an allotted time of 10 seconds!)

While burning trash, he watched the match burn down, after striking it on his pants.

“I shaved but I didn’t wash my face afterward. I didn’t have authority to do that.”  
(Suggestion: “You’re going to shave.” A.T., 10 seconds.)

“The barn door stuck because it had been raining.”

“While getting shaved, the barber spent so much time talking to the other barber that the lather began to set.”

While pulling up and counting iris, “the reason it took so long was because I had to get the dirt off them.”

While watching a football game, his attention was drawn away from the play by a fight in the stands.

In counting potatoes, as he removed them from a basket and placed them in a sack, some fell back into the basket and hit the rim. “I had to count them over again.”

While counting candies as he removed them from a box, “there was a strawberry cream that had mashed and cracked and had run a little bit. What to do with it passed through my mind.”

In counting gum-drops, he noticed that some were stuck together. “I pulled out the whole bunch and broke them off and put them in separate piles.” While picking berries, the carton got so full that they kept falling out. While riding the waves during a swim, she hit the bottom.

While washing the baby, she spilled all the water.

In making sandwiches, she cut her finger with the knife, and it bled.

In counting chickens, she noticed that one had started sprouting wing feathers, and one was sick.

In playing truth or consequences, "they blindfolded me and a fellow kissed me and embarrassed me."

"The Victrola started slowly. I had to wind it again."

While roller-skating, she fell down.

While crocheting, the thread broke.

In buying shoes, she tried on four pairs first.

A student who came for counseling said, "I want you to know that I'm not here because I'm crazy."

While counting chickens, the first one defecated in his hand. Asked what he then did, he replied, "I wiped it off on the second chicken."

### **SPECIAL INQUIRY**

After a subject had completed his or her report, various questions were asked of them, designed to clarify certain aspects of their experiences. The following section is devoted to a presentation of the knowledge thus acquired.

### **Falsification**

One who hears a number of these accounts soon becomes intuitively convinced of their truth and of the actual existence, for the subject, of the alleged experiences. The subjects were honest individuals, interested in the research, and their waking reports agreed with those given under hypnosis. They all insisted that the reporting was an entirely different event from the original experience, and that they did not elaborate. They repeatedly resented the implications of questions directed to the discovery of possible retrospective falsification. Incidentally, during the reporting they saw scenes from the activity, but they were generally "stills." Questions directed to the "subconscious" concerning the presence of falsification were invariably answered in the negative. Finally, the locating of the sound signals, the coincidental happenings, the apparent conditioning, the spontaneous expression of emotion during reporting, and the subsequent amazement on learning the true time relations, all render retrospective falsification unlikely.

### **Realness**

In the accomplished subject the hallucinations possess a high degree of "realness," which is fairly consistent. At times, however, reports will mention a lack of clearness in the imagery. Such instances are on the whole infrequent. Often, however, the definition and

clarity will be confined to those things which occupy the immediate attention, the background remaining vague.

As training develops the ability to hallucinate, so also it aids in the production of scenes that are real and true to life. Thus, with practice, there comes an increase in detail and in color. To encourage this, we daily gave our subjects the following suggestion— “In this trance any scenes you see will be very clear and any experiences you have will be very real, so that you will actually live them.”

One very striking evidence of the realness of the activities is the frequent reporting of accidental or coincidental happenings. For instance, the subject who is crocheting breaks her thread, and later cuts her finger while making sandwiches or spills the water in which she is bathing her child. Another one, asked to burn some rubbish, strikes the match on his pants and watches it as it burns, or while walking past a hayfield begins to sneeze. The chalk that the angry teacher throws strikes the blackboard and breaks, and the little boy whose ears stand out so far scratches his head as he strives to find the answer to his problem. Such telltale details were frequently mentioned, and a partial list of them is given elsewhere.

It was not uncommon for the subjects to say how much they enjoyed an activity and how much they regretted its termination. At other times they would get tired or become bored. In one case a subject who had been waked was telling about an activity in which he seemed to be quite young. After telling how rough the ground was over which he had been dragging a bushel basket of apples, he asked, “Did I breathe hard?” When answered in the negative, he replied, “Then I guess I must have just imagined it.” Thus the subjective reality of the experience was so great that even in the waking state he expected physical manifestations of it.

## **Continuity**

Action was continuous in all but a very few hypnotically suggested experiences. This was ascertained by frequent questioning. In fact the subjects themselves would usually volunteer information concerning an omission or a skip. When these occurred, there was generally a shifting of scene without apparent transit from one location to the other. Another form would be a “floating” from one place to another instead of walking. One subject did this when she became bored.

In several instances a shift of scene apparently represented an amnesia, for on being asked to relive the action, the subject reported the missing experience.

The hearing of rather long pieces of music without omission by musicians is most suggestive of true continuity. One of our subjects was a skilled professional violinist, and another an accomplished amateur. They frequently reported that there were no omissions in the familiar pieces they heard or played in trance. Other subjects gave similar testimony concerning familiar popular music.

Another point that bespeaks continuity is that injected sound signals invariably arrived during hallucinatory action. In other words this type of exploration revealed no action-free intervals.

The counting experiments also support the view that continuity is present.

## Time Sense

For successful "utilization" of experiential time by increased mental activity it is probably mandatory that the subjects be totally unaware of their surroundings and of world time. With some subjects this is difficult at first; with others it is easy. Three of our subjects were apparently helped by a brief talk on the relation between subjective and physical time, the dream being cited as the most familiar example of the variability of the former. The transition period which preceded the full acceptance of "special time" in these subjects was most interesting, as the following accounts will show.

The efforts of these subjects to get away from world time are worthy of note. One of them, who said she seemed always to be aware of world time, would hallucinate a weird cellophane covering for herself, into which to "escape." With this pulled down over her, she was able to hear several minutes of music, in normal tempo, during but a few seconds of world time. Her difficulties disappeared one day, and with them the necessity for these odd creations, while she was counting silently the strokes of an hallucinated metronome. She counted 27 metronome strokes in 55 seconds, and as she did so, found herself watching 3 "sky-writing" pilot in the air. She was much impressed with what she saw. "Here I am counting by myself in one kind of time and watching an airplane do fancy loops, and it seemed to me that he had so much time to kill between strokes. He had time to do all kinds of fancy loops and things, and it didn't seem strange at all. If he had been writing a word, which he wasn't, there were enough loops to take care of a six- or seven-letter word." Later she said, "I think the thing that convinced me most [of the reality of another sort of time] was seeing the airplane and noting how easily, effortlessly, or unhurriedly it was looping in between strokes. He seemed to have so much time to kill. Now I really realize that the thing to do is to relax and accept the fact that there is more than one kind of time."

Another remark that is worthy of record was made by a subject who, while in trance, refused to demonstrate the rate at which she picked flowers. When asked why she couldn't do so, she said, "I'll try, but I tell you I picked 145 in 10 minutes and I can't repeat it now because I don't have a time limit right now—neither a time limit nor a limit on the flowers I might pick. It doesn't coincide. But there I'm in a certain frame of mind and it can't be repeated here. I can't do it incomplete—in a fragment. It's impossible. I can do it again too!"

Then, after waking, she said, "Well, I consider this a unique experience with a certain time limit and a certain amount of work to be accomplished. If the time limit or the

amount of work or both are eliminated, it is not the same experience anymore, so I can't show you in a fragment how it went, or how it was."

Some weeks later she was crystal-gazing in a trance and was asked to see herself picking the same flowers, and to count them aloud as she did so. Under these circumstances she readily complied. The demonstrated rate was 42 per minute.

Another subject, in the transition period, once tried to escape world time by "going off from the main shaft of a mine." His difficulties were further revealed in the following remarks: "Here's a funny thing now. I was conscious that the physical time was perhaps 11 seconds, but the hallucinated time seemed to be about two minutes."

"And I was able to move these marbles, one at a time, without taking a handful or anything like that and without hurrying."

"Were you aware then of two time factors?"

"Yes—I was aware of the consciousness of physical time and also of hallucinated time."

"Would it be fair to say that you weren't completely lost in the hallucinated experience?"

"No—I was engrossed in the hallucinated experience, but yet some other factor seemed to indicate that it was merely 10 or 11 seconds."

"Were you aware of that while you were counting marbles?"

"No but when I said [while reporting] 'two minutes,' the other factor came into play and gave a quiver—a physical shock—to my body, and then the idea of 11 or 10 seconds came."

In some of the tests the subjects spontaneously hallucinated a watch or a clock. In others, these instruments were suggested to them. Usually, but not always, the time indicated by the hallucinated timepieces was appropriate to the subjects' experiences.

## Thought

All our subjects felt that the thought processes they employed in their hallucinations were comparable to those of the waking state. In fact some of them felt that they were possibly of a superior type, there being an increased ability to consider situations as a whole. One said, "Considerations are weighed out mentally instead of verbally." We were, unfortunately, unable to give this matter the attention it deserved.

We feel that this is true thought. If such indeed be the case, then it is obvious that this all-important mental activity, at least a form of it, can take place at very rapid rates, while appearing to proceed normally. It is obvious also that such thought can deal only with concepts available through memory. Yet it is possible that the increased accessibility of

material from the unconscious might be advantageous under certain circumstances. Creative thinking likewise might be aided.

To date the ability to perform mathematical thought more rapidly while time sense is distorted under hypnosis has not been demonstrated.

## **Hallucinations and Dreams**

We do not consider these hypnotically induced experiences to be identical with dreams, and we have never used the word "dream" in a suggestion unless we wish to produce such an entity. That our subjects were in most cases aware of a difference is evidenced by the fact that they occasionally, while resting, would say, "I went to sleep and had a dream." However, these dreams had no connection with the experimental work. Between assignments it was customary to give the suggestion, "Now let your mind wander whither it will-to pleasant scenes," in response to which they usually engaged in desultory hallucinated activity, which they did not consider the same as dreaming.

Five of our subjects were asked to compare these two types of activity, and all felt that there were differences. Their remarks follow.

Concerning hallucinated activities in hypnosis:

- Hallucinations are,
  - “better organized.”
  - “more real than dreams.”
  - “directed dreams.”
  - “very true to life, and the experiences carry on as if they were really happening.”
  - “You are conscious of what you are doing and can control the situation better.”
  - “They make sense, whereas dreams are often silly and impossible.”

Concerning dreams:

- Dreams are,
  - “less meaningful.”
  - “often far-fetched.”
  - “They contain nonsense and extraneous things.”
  - “They show less continuity.”
  - “They contain something impossible or unreal.”
  - “In dreams the mind jumps from one subject to another, and it is as if the dreamer were looking on instead of participating in it.”
  - “Most dreams are next to impossible.”

## **Awareness of Surroundings**

The subjects with the best performance all reported that while engaged in an assignment they were completely unaware of their surroundings. The ones who were unable to lose touch completely with the physical world had difficulties with time distortion.

## **Miscellaneous**

The subjects all said that the hallucinated activity never started before the starting signal and that it invariably ended abruptly at the termination signal.

As an example of the sudden cessation of action, one subject told how the signal came as he was reaching for something, and his hand was in midair as the hallucination disappeared.

Aside from their intrinsic significance, these findings speak against retrospective falsification.

## **ANALYSIS OF RESULTS**

### **Experiential Time**

If we simply assign a completed type of activity to subjects and ask them to let us know when they have finished it, we shall find the following to be true:

- a) They will complete the activity
- b) It will appear to proceed at the usual rate.
- c) It will probably take less than three minutes by world time
- d) It will seem to the subjects to take much longer.

In other words there will be definite time distortion even though the suggestion made no stipulation whatever concerning time.

These relations are shown in an analysis of 55 tests in which the activity was a completed one, and in which there was no allotted time (A.T.) or suggested personal time (S.P.T.).

#### World Time.

Average	127 secs.
Maximum	270 secs.
Minimum	35 secs.

#### E.P.T.

Average	17 min.
Maximum	45 min.
Minimum	3 min.

E.P.T. was invariably longer than W.T.,

It is thus seen that in hallucinatory activity in hypnosis there is apparently an inherent tendency for time distortion to occur.

Another basic consideration is the fact that the subjects will try their best to carry out whatever is suggested-to "obey orders," in other words. Thus if, with a given activity, we

use an allotted time and gradually decrease this in repeated tests, assuring the subjects that they will not have to hurry and will have plenty of time, they will learn somehow to adjust their hallucinated action to the short world time interval. They will "fit it in," so to speak. Yet they will continue to complete the assignment without hurrying, it will appear to be real in every way, and the experiential time will be appropriate. Use is made of this in training subjects, and it is of considerable importance for this reason.

A little reflection will reveal that in assigning a completed activity we assign not only a definite amount of action, but also in effect an appropriate amount of experiential time. This is especially true if we tell the subject not to hurry. The reason for this, of course, is that the awareness of action or change is invariably accompanied by a sense of the passage of time.

On the other hand, time sense itself may be prolonged without the awareness of an equivalent amount of action. This is seen in the dream, where there is often a relative poverty of action. It is also true in those hypnotically induced hallucinations where, on occasions generally involving a suggested personal time (S.P.T.), the amount of activity, though large, is still much less than would be expected when one considers the estimated personal time (E.P.T.).

We can see from the above that, in hypnotically induced hallucinations, the experiential time is influenced by some inherent factor and by the assigned activity itself.

A third consideration, and a most effective one, is the direct suggestion of a subjective time interval—the use of a suggested personal time (S.P.T.).

### **Amount of Action**

Where an incomplete activity is used, and there is no suggested personal time (S.P.T.), the accomplishment depends upon the rate at which the subjects choose to carry out their hallucinated action and the allotted time (A.T.) or world time (W.T.).

On the other hand, where an incomplete activity is used and a suggested personal time (S.P.T.) given, the subjects will strive to fill up their suggested interval with action. Most of our counting experiments are of this type and are indeed remarkable.

With a completed activity the most important factor determining the amount of action is of course the assignment itself. Within undetermined limits, a proficient subject will complete activities as requested.

### **Summary**

The essential points in the above discussion of the relation between type of activity, S.P.T., amount of activity, and E.P.T. are recapitulated below.

- I. Incomplete activity.

1. Without S.P.T.

Amount of action depends upon subject's chosen speed of hallucinatory action, and upon A.T. or W.T.

E.P.T. will be appropriate to the action.

2. With S.P.T.

Amount of action will be consistent with S.P.T. where the subject is proficient.

E.P.T. will equal S.P.T.

II. Completed Activity.

1. Without S.P.T.

Amount of action is determined by the suggested activity.

E.P.T. is appropriate to the suggested activity.

2. With S.P.T.

Amount of action is determined by the suggested activity.

E.P.T. equals S.P.T.

It is understood of course that the subjects have had enough training to have become proficient. Thus in a sense the above statements apply to the "ideal" subject. The commonest shortcoming is an inability to accept fully a suggested personal time (S.P.T.). It is important to note, furthermore, that in these experiments the allotted time (A.T.) was never less than 10 seconds, and only rarely was the suggested personal time (S.P.T.) over 30 minutes. No attempt was made to explore the limits of performance.

It is clear from the above that hallucinated action and subjective time are to a certain degree interrelated.

Time distortion as effected in these experiments is accompanied by a marked increase in the ratio E.P.T./W.T. It is usually accompanied by an appropriate increase in hallucinated activity. In order to produce these results, then, the following conditions should be fulfilled:

For an incomplete activity:

A familiar activity

S.P.T. —long

A.T. —short

For a completed activity:

A familiar activity the completion of which requires a relatively long period of time

S.P.T. —not of primary importance. If used, it should be appropriate.

A.T. —short

In general:

Subjects often find that the suggestion "Please don't hurry, you'll have plenty of time," reassures them and helps them to relax.

## **TRAINING**

The following suggestions may be helpful in the training of new subjects. Keep concurrent reporting—that is, reporting while an hallucination is actually in progress—to a minimum. This will give the subjects an opportunity to become accustomed to dissociating themselves from their physical surroundings and becoming wholly engrossed in the hallucinated world. Without the ability to do this, satisfactory time distortion cannot be obtained. We used concurrent reporting only in the “previews” to the counting experiments.

In teaching a subject to hallucinate, a good expression to use is, “I now want you to imagine that you’re in such and such a place.” After a brief interval—“Now make your mind a blank. Your mind is now a blank. Now tell me what you saw.”

After the ability to hallucinate has been acquired, it is best to start with either simple incomplete or continuous activities, such as looking in shop windows, with a long allotted time (A.T.) or with a simple completed activity without A.T. By a long allotted time (A.T.) we mean one or two minutes. An estimated personal time (E.P.T.) should be asked for after each activity. It will almost invariably show distortion fairly early during training. It might help to point out this distortion to the subject, who will then realize that there is nothing amiss in experiencing a subjective time interval that is out of proportion to world time.

We have usually postponed the suggestion of a personal time until subjects have acquired some proficiency with simpler procedures, on the theory that failure might discourage them.

Throughout the training, advantage is taken of the following:

- a. The inherent tendency toward spontaneous time distortion in hallucinated activities.
- b. The effort and the need on the part of the hypnotized subject to carry out suggestions, especially to finish a completed activity.
- c. The fact that, at the beginning at least, familiar activities are more readily hallucinated than unfamiliar ones.
- d. The fact that the interest and curiosity of the subjects, and their feeling of being productive, tend to improve cooperation and performance. Advantage can be taken of this by giving them sufficient understanding of what they are doing so that they accept and do not reject it.
- e. The tendency to improve with practice.

As training progresses, a series of tests is run with completed activities, and a gradually decreasing allotted time (A.T.), but without a suggested personal time (S.P.T.). As mentioned elsewhere, it is not necessary, and is possibly not desirable, to give the subjects any notice to the effect that the operator is going to tell when to stop. We generally began with an allotted time of one or two minutes and cut it down by 10 to 30 seconds at each step. The subjects, “caught short” at first, will soon learn to adjust to the shorter allotted time (A.T.), and will fit their hallucinatory experiences into the interval

allowed them, without hurrying or compromising in any way. In this way they learn to work with short allotted times. How far this process can be carried is not known at present. The next step is the giving of a suggested personal time (S.P.T.). This is of special importance with incomplete activities. Some subjects readily accept this early in their training; others have difficulty doing so. The difficulty seems to arise from at least two factors—a residual awareness of surroundings and consequently of world time, and a deep conviction that it “just ain’t so.” Practice, and use of a deeper trance, will help overcome the first difficulty. With the second it may help to point out to the subjects that they have on many occasions during their training experienced the variability of subjective time in relation to world time. The results of some of their earlier tests will convince them of this, when shown to them. In addition, it may help to give them some such explanation as the following, which proved to be of definite assistance with some of our subjects.

There are two kinds of time, one, the time the clock tells us, the other, our own sense of the passage of time. The first of these is known as physical, or solar, or world time. It is the time used by the physicists and the astronomers in their measurements, and by all of us in our workaday life. The second is called personal, or subjective time. Einstein refers to this as “I-time.”

It is this subjective time that we are most interested in here. One of the most important things about it is that it is very variable. Thus, if several persons are asked to judge the length of a five-minute interval as measured by a clock, they may have very different ideas as to the duration of the interval, depending upon the circumstances in which they find themselves. To those who were enjoying themselves, or who were absorbed in some interesting activity, the interval might well seem shorter. On the other hand, to those in pain or discomfort or anxiety, the five minutes would seem much longer. We call this time distortion, and the most familiar example of it is found in the dream. You yourself have probably often noticed that you can experience many hours of dream life in a very short time by the clock.

Now, it has been repeatedly demonstrated that subjective time appreciation can be hallucinated just as you can hallucinate visual or auditory sensations, in response to suggestion during hypnosis. The subjects thus actually experience the amount of subjective time that is suggested to them. So in a sense you have a “special time” of your own, which you can call on as you wish. Moreover you have an unlimited supply of it. It is the time of the dream world and of the hallucinated world, and since it is readily available, you will never have to hurry in these tests. Furthermore it bears no relation whatever to the time of my watch, which, consequently, you will ignore.

Knowing these things, you can now relax and take your time.

## **CONTROLS**

As a control our subjects were asked to estimate both short and long world-time intervals while engaged in various activities. With the short intervals, which varied from 10 to 30 seconds, the activities were counting small objects, sorting cards, talking, and reading. The instructions, incidentally, were patterned after those used under hypnosis in assigning activities. With the longer intervals, ranging from 15 minutes to several hours, ordinary daily occupations were engaged in.

It is quite obvious from the results in Table 5 that the estimated times are in far closer agreement with the actual world-time intervals than under the type of time distortion studied in this report.

**TABLE 5**  
Controls  
*Estimation of Short Intervals (10-30 seconds).*

Subject	Maximum Error (%)
A.....	120
B.....	85
C.....	100
D.....	150
E .....	100
F .....	66

*Estimation of Long Intervals (15 minutes to several hours).*

Subject	Maximum Error (%)
A.....	80
B.....	30
C .....	-
D.....	25
E .....	25
F .....	25

## **SPECIAL DISCUSSION OF PSYCHOLOGICAL AND PSYCHIATRIC IMPLICATIONS**

*Milton H. Erickson*

The discovery or development of every new concept in science poses the difficult question of what will be its eventual significance and application. The publication of the senior author's first experimental study of time distortion impressed this writer with the possibility of new and better understanding of certain psychological functionings and consequently, of different and more searching procedures and methodologies in dealing with psychological problems. Long experience in the fields of experimental and clinical psychology and in psychotherapy has repeatedly demonstrated the tremendous importance of experiential realities in human living and, at the same time, the laboriousness and often futility of any attempt at reaching a measurable understanding of them. Certainly the findings made in the original study and confirmed by this second report suggest the definite possibility of new, readily available avenues for the

examination of those inner experiences that constitute so large a part of life, and which are so difficult to study in a rigorously scientific manner. However, no attempt will be made to offer an elaborate discussion of psychological and psychiatric implications of these two studies. Rather, a number of them will be mentioned briefly with the hope that readers will accept the task of considering for themselves those implications bearing upon fields of special interest to them.

Foremost to this writer are the implications of time distortion in the field of psychotherapy. Certainly no one questions the importance of the subjective experiential life of the individual, nor the present unsatisfactory, laborious, time consuming, and unscientific methods of studying it.

What constitutes a subjective reality? Of what seemingly pertinent and irrelevant elements is it comprised? In what way is it integrated into the total life of the person? What self-expressive purposes does it serve for the personality? What determines its validity? How does it differ from a memory, a dream, a fantasy, and from retrospective falsification? In what way is it distorted by present methods of concurrent or retrospective reporting, and how much time does it require? All of these considerations are touched upon either directly or indirectly in this study, and each of them constitutes a significant problem in psychotherapy, to say nothing of psychology in general.

The girl who, in an allotted 10 seconds, subjectively experienced in voluminous detail a 30-minute automobile ride upon which a report could be made with "stills" of the scenes, demonstrated a challenging possibility of a new approach to the exploration of the experiential past of the individual.

The subject who found it impossible to demonstrate in the waking state her experiential behavior in picking flowers because it was under a "different" time limit and work limit, and yet, weeks later in a trance state was able to demonstrate in actual accord with the previous findings, discloses the possibility of controlled studies of subjective realities.

Delusions and hallucinations have long constituted intriguing problems. They are subjective realities accepted by the person as objective realities. Yet one of our experimental subjects experienced dragging a basket of apples with such vividness that he expected the experimenter to note his forced respirations, which, similar to the basket, were only subjectively real. Nevertheless he recognized the total experience as entirely subjective but did so without losing the experiential feeling of its objective reality. Experimental studies patterned from this and the other similar findings above might lead to a better understanding of pathological delusions and hallucinations.

Theories of learning and memory are constantly in need of revision with each new development in experimental studies in those fields. In this regard the findings on the subject who in an allotted 10 seconds took a long walk and developed a conditioned-response reaction by being "jolted" by an interjected sound signal, pose definite problems for research on learning, memory, and conditioning.

Similar is the instance of the violinist who, in allotted 10-second periods, subjectively experienced playing various compositions with practice effects as attested by a competent critic. Subsequent to this study she made use of her "special personal time" to experience subjectively practicing a difficult, long-forgotten composition, and then to play it successfully in reality from memory without having seen the written music for years.

In this same connection one may speculate upon the role of motor functioning in mental learning, since this violinist subjectively experienced the total process of playing the violin, studying the written music, and memorizing it, while lying supine and-inactive, and yet demonstrated the actual effects of reality practice.

A tempting experimental study based on these findings would be the exhibition of a form board to naive subjects and having them in special personal time, at a hallucinatory level, practice assembling it. The findings of this study warrant the assumption that, even as motor activity facilitates learning in everyday reality, subjective motor activity, as contrasted to objective, is an effective aid to memory and learning.

Another interesting, actually significant finding bears upon the validity of the experiential realities to the subjects, negates assumptions of retrospective falsification, and serves to confirm the findings of various competent experimenters that hypnosis cannot be used to induce antisocial behavior. This was the discovery in several instances that suggested hallucinatory activities were unexpectedly regarded as objectionable by the subjects. The reactions were essentially the same in all cases and can be illustrated by the following example.

The subject was instructed to experience herself in the role of a psychologist counseling a client relative to a problem involving epilepsy. Although willing to serve as a counselor, the experiential reality of the situation was so great that she could not tolerate the task of dealing with the problem because she felt that epilepsy was beyond the rightful scope of a psychologist and that any counseling she might offer would be unethical. Accordingly she referred her hallucinatory, client to a medical man and developed intense resentment and hostility toward the experimenter for calling upon her to violate, even at a subjective level, her personal code of ethics.

While much could be said about the implications of time distortion and the experimental findings reported here in relation to concepts of gestalt psychology, the molar psychology of Tolman, Hull's modern behaviorism, and Freudian psychology, this will be left to the special interests of the reader. Time and its relationships constitutes a significant element in all psychological functioning no matter from what school of thought it is viewed. Hence any study dealing with the element of time itself in psychological functioning must necessarily have important bearing upon every school of thought, and this concept of time distortion offers a new approach to many psychological problems.

A final item of special interest to this writer centers around the problem so pertinent in research in clinical psychology and psychotherapy-namely, the problem of how to create for a subject or a patient a situation in which to respond with valid subjective reality.

Certainly this study indicates the possibility of much more rigorous controlled research with time as aid rather than as barrier.

To conclude, this writer in all modesty—since the conception, plan, and organization of this study was entirely original with the senior author—can express the opinion that the experimental findings reported in this paper offer a wealth of highly significant ideas and concepts for extensive psychological research and clinical psychiatric application.

## **SUMMARY**

The relation between experimental time and world time during hallucinated activity in hypnotized subjects was studied.

Various hallucinated activities were suggested and were carried out by the subjects, a record being made of their duration. In activities which did not involve a completed act a personal time interval was often suggested to the subject. The hallucination was terminated either by the subjects themselves or by the experimenter. In some instances the period of action was explored by injecting sound signals into the hallucination. In another group of tests the suggestion was given that a metronome, either real or hallucinated, would slow down. A brief study was made to determine the value of hallucinated review of previously learned material. An interesting attempt to improve motor function by hallucinated practice is reported.

The most important findings were that the investigator can control within limits the subject's sense of the passage of time, and that in a prolonged experimental time interval an appropriate amount of subjective experience, hallucinatory or otherwise, may take place. The suggested slowing of the metronome was accepted. Thus the findings of our initial report were confirmed. The sound signals often were apparent in the hallucination, their position in the subjective interval roughly corresponding to that in the world-time interval. Continuous sounds were definitely prolonged, as was to be expected. In one case the sound signals set up a conditioned stimulus in the hallucinated environment.

Inquiry was made into various aspects of the hallucinatory experiences. They were found to possess both realness and continuity. Time sense was strikingly altered. Thought seemed quite natural in distorted time. Subjects felt that their hallucinated activities in these experiments differed from nocturnal dreams. Subjects were unaware of their surroundings during their hallucinations.

The findings as a whole are analyzed.

Suggestions are given concerning the training of new subjects.

The experiments are discussed from a psychological and psychiatric point of view.

## **CONCLUSION**

In view of these findings, the following statements are probably true:

- 1) Results reported in an earlier communication on time distortion in hypnosis (Cooper, 1948) can be duplicated in the majority of subjects. Time sense can be deliberately altered to a predetermined degree by hypnotic suggestion, and subjects can have an amount of subjective experience under these conditions that is more nearly commensurate with the subjective time involved than with the world time. This activity, while seeming to proceed at a natural rate as far as the subject is concerned, actually takes place with great rapidity.
- 2) Retrospective falsification does not enter into the subject's reports.
- 3) The continuity of these subjective experiences during distorted time is good.
- 4) Thought, under time distortion, while apparently proceeding at a normal rate from the subject's point of view, can take place with extreme rapidity relative to world time. Such thought may be superior, in certain respects to waking thought.

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# **Clinical and Therapeutic Applications of Time Distortion**

Milton H. Erickson

Written with L. Cooper. In *Time Distortion in Hypnosis*. Baltimore: Williams & Wilkins, 1954.

## **INTRODUCTION**

The discovery or development of a new concept in science poses difficult questions concerning its definition and its eventual significances and applications. In the experimental work constituting the major part of this book the term "time distortion" has been used as offering a reasonably concise way of expressing a methodology for a study of time itself as one of the essential elements in the experience of human living. To so emphasize time as an integral part of human experience may be considered trite, but it is not trite to recognize time as an element fully as worthy of investigation as any other factor in human living. Yet such investigative studies have been seriously neglected.

From recognition of this oversight and long interest in the experiential significance of time came the senior author's impetus for the foregoing experimental studies.

In sharing with him a small part of the experimental studies, this writer became interested in the question of the clinical and therapeutic applications of the experimental findings.

The publication of the first experimental study (Cooper, 1948) suggested definite possibilities of new and better understandings of psychological functionings and consequently of different and more searching procedures and methodologies in dealing with psychological problems. Subsequent experimental studies and tentative applications of the findings to clinical work confirmed that first impression. In the second experimental study (Cooper and Erickson, 1950) these impressions have been discussed in the form of a general summary as follows:

Foremost to this writer are the implications of time distortion in the field of psychotherapy. Certainly no one questions the importance of the subjective experiential life of the individual, nor the present unsatisfactory, laborious, time-consuming, and unscientific methods of studying it.

What constitutes a subjective reality? Of what seemingly pertinent and irrelevant elements is it comprised? In what way is it integrated into the total life of the person? What self-expressive purposes does it serve for the personality? What determines its validity? How does it differ from a memory, a dream, a fantasy, and from retrospective falsification? In what way is it distorted by present methods of concurrent or retrospective reporting, and how much time does it require? All of these considerations are touched upon either directly or indirectly in this study, and each of them constitutes a significant problem in psychotherapy, to say nothing of psychology in general.

The girl who in an allotted 10 seconds subjectively experienced in voluminous detail a 30-minute automobile ride upon which a report could be made with "stills" of the scenes, demonstrated a challenging possibility of a new approach to the exploration of the experiential past of the individual.

The subject who found it impossible to demonstrate in the waking state her experiential behavior in picking flowers because it was under a "different" time limit and work limit, and yet weeks later in a trance state was able to demonstrate in actual accord with the previous findings, discloses the possibility of controlled studies of subjective realities.

Delusions and hallucinations have long constituted intriguing problems. They are subjective realities accepted by the person as objective realities. Yet one of our experimental subjects experienced dragging a basket of apples with such vividness that he expected the experimenter to note his forced respirations, which, similar to the basket, were only subjectively real. Nevertheless he recognized the total experience as entirely subjective but did so without it losing the experiential feeling of its objective reality. Experimental studies patterned from this and the other similar findings above might lead to a better understanding of pathological delusions and hallucinations.

Theories of learning and memory are constantly in need of revision with each new development in experimental studies in those fields. In this regard the findings on the subject who, in an allotted 10 seconds, took a long walk and developed a conditioned response reaction by being "jolted" by an interjected sound signal, pose definite problems for research on learning, memory, and conditioning.

Similar is the instance of the violinist who, in allotted 10-second periods, subjectively experienced playing various compositions with practice effects as attested by a competent critic. Subsequent to this study she made use of her "special personal time" to experience subjectively practicing a difficult, long-forgotten composition, and then played it successfully in reality from memory without having seen the written music for years.

In this same connection one may speculate upon the role of motor functioning in mental learning, since this violinist subjectively experienced the total process of playing the violin, studying the written music, and memorizing it while lying supine and inactive, and yet demonstrated the actual effects of reality practice.

A tempting experimental study based on these findings would be the exhibition of a form board to naive subjects and having them in special personal time, at an hallucinatory level, practice assembling it. The findings of this study warrant the assumption that, even as motor activity facilitates learning in everyday reality, subjective motor activity, as contrasted to objective, is an effective aid to memory and learning.

Another interesting, actually significant finding bears upon the validity of the experiential realities to the subjects, negates assumptions of retrospective falsification, and serves to confirm the findings of various competent experimenters that hypnosis cannot be used to induce antisocial behavior. This was the discovery, in several instances, that suggested hallucinatory activities were unexpectedly regarded as objectionable by the subjects. The reactions were essentially the same in all cases and can be illustrated by the following example.

The subject was instructed to experience herself in the role of a psychologist counseling a client relative to a problem involving epilepsy. Although willing to serve as a counselor, the experiential reality of the situation was so great that she could not tolerate the task of dealing with the problem because she felt that epilepsy was beyond the rightful scope of a psychologist and that any counseling she might offer would be unethical. Accordingly, she referred her hallucinatory client to a medical man and developed intense resentment and hostility toward the experimenter for calling upon her to violate, even at a subjective level, her personal code of ethics.

While much could be said about the implications of time distortion and the experimental findings reported here in relation to concepts of gestalt psychology, the molar psychology of Tolman, Hull's modern behaviorism, and Freudian psychology, this will be left to the special interests of the reader. Time and its relationships constitutes a significant element in all psychological functioning no matter from what school of thought it is viewed. Hence any study dealing with the element of time itself in psychological functioning must necessarily have important bearing upon every school of thought, and this concept of time distortion offers a new approach to many psychological problems.

A final item of special interest to this writer centers around the problem so pertinent in research in clinical psychology and psychotherapy--namely, the problem of how to create for a subject or a patient a situation in which to respond with valid subjective reality. Certainly this study indicates the possibility of much more rigorous controlled research with time as aid rather than as barrier.

Since the publication of the above, opportunities have arisen from time to time to utilize or to adapt various experimental findings in clinical and therapeutic work. However, it must be noted that experimental studies and clinical work belong to different categories of endeavor. In the former rigorous controls must be exercised, and the object is the determination of possibilities and probabilities. In clinical work the welfare of the patient transcends all other matters, and controls and scientific exactitudes of procedure must give way to the experiential needs of the patient in the therapeutic situation. Another type of measure of validity, different from the controlled scientific methodology of experimental procedure, holds in clinical work. Such a measure is constituted by the therapeutic results that can be definitely related to the procedure employed and which are understandably derived from it.

## **GENERAL CONSIDERATIONS OF CLINICAL APPLICATIONS**

Since the clinical situation of psychotherapy is not a Procrustean bed, utilization of experimental findings and concepts must necessarily depend upon the patient's needs and desires and the attendant circumstances. It cannot be a matter of furthering special interests of the therapist. Hence any utilization must await the opportunities and occasions presented by the patient and not represent a planned procedure established out of context with the developing needs of the patient in therapy.

Furthermore the concept of time distortion does not constitute in itself a form of psychotherapy. Rather it offers a method by which access can be gained to the experiential life of the patient. Any therapy resulting derives from a separate process of reordering the significances and values of the patient's experiential subjective and objective realities.

The following case reports are those of patients who presented an opportunity to investigate the applicability of time distortion to psychotherapeutic problems. These reports are presented relatively briefly, and emphasis is placed upon the dynamics of the individual case, since the purpose of the reports is to demonstrate as clearly as possible the problem, the situation, and the circumstances which led to the utilization of time distortion, and the results obtained.

### **PATIENT A**

The first case history illustrates an unwitting and unintentional spontaneous utilization of time distortion by a patient previous to Cooper's initial publication.

It is presented because it demonstrates not only the use of time distortion but how, in the ordinary course of psychotherapy, an opportunity can arise for the utilization of time distortion. Needless to say, at the time of this occurrence this writer was at a loss to understand what had happened, but it laid the foundation for a profound interest in Cooper's first publication four years later.

The patient, an artist in his early thirties, sought therapy primarily for marital problems and secondarily for personality difficulties. During therapy, despite his success in the field of portraits, landscapes, and still life painting, he felt extremely frustrated because he had not painted a circus picture. For more than ten years, even previous to his marriage, he had hopelessly desired to paint such a picture but had not even succeeded in making a preliminary sketch. He had not even been able to think sufficiently clearly on the subject to speculate on what figures or scenes he might wish to portray. The entire project remained a vague, undefined "circus picture."

Although his other problems were clarified during months of therapy, nothing was accomplished in this regard. Even profound somnambulistic hypnotic trances, with various techniques, elicited only the explanation, "I'm completely blocked mentally. I can't think any further than 'circus picture.'" He could not even sketch a possible

composition plan of vertical and horizontal lines, his usual method of working out preliminary sketches.

Since the patient wished further therapy in this connection, a deep trance was induced and he was given the following posthypnotic suggestions:

1. Stretch a large canvas in the neighborhood of 24 x 40 inches. It may be larger or smaller—possibly a golden rectangle.
2. Secure a more than adequate new supply of paint tubes and pigments and set them up as if in preparation for painting.
3. Make out a daily hourly schedule for the next three months, blocking out hours that might be used for painting the circus picture (his usual procedure in planning a new painting).

He was then awakened and dismissed with an amnesia for trance events.

A few days later, with no realization of the posthypnotic nature of his performance, he reported that he had made a time schedule for the next two months. This schedule would permit him, if he worked hard, to finish his present commitments within two weeks. Then over the remaining period there would be blocks of time totaling 70 hours which he would reserve absolutely for an effort to paint a circus picture. No mention was made in relation to the other posthypnotic suggestions.

He was hypnotized deeply and instructed to fulfill his current commitments adequately. Then he was to set about this proposed project, working slowly, carefully, and painstakingly as he always did, without rushing or hurrying. In so doing the 70 allotted hours would pass with utter and incredible speed. Yet he would work satisfactorily and at a normal tempo. (The intended purpose of this instruction was to prevent him from feeling the burden of a long-continued task.)

All of this instruction was emphatically and repetitiously given to insure adequate understanding.

Two days later a highly excited telephone call was received from him, asking for an immediate interview.

His story was as follows: While completing a current picture, he ceased work to eat his lunch of sandwiches in the studio. While so doing he decided to stretch a new canvas, thinking vaguely that he might use it for the projected picture.

This done, he picked up the remainder of his sandwich and found it inexplicably dry. Puzzled by this, he chanced to look at the stretched canvas and was utterly amazed to find a freshly completed oil painting of a circus scene. With intense curiosity he examined it carefully, feeling exceedingly pleased and satisfied with it. Suddenly he saw his signature

in the corner (which he ordinarily appended ritualistically only when he had given his final approval to his work) and noted at the same time that the style of painting was his own. Immediately he had rushed to the telephone, observing on the way that the clock gave the hour as 6:00 P.M. All the more bewildered, he had telephoned, saying, "Something's happened. Can I see you right away?" To this account he added, "What happened? What happened?"

Since he had brought the picture with him, he was questioned about it. The performing dog in it was really a neighbor's; the equestrienne was his recently acquired second wife; the clown was himself; and the Ferris wheel was one his present wife had recently described in a reminiscence. Yet the painting as a circus picture was more than satisfying to him as a person and as a critical artist. (At art exhibitions in various states critics have all been most favorable in their comments.)

He was much puzzled by his replies to the questioning and kept reiterating, "It's the circus picture I've always wanted, but it's got nothing to do with any ideas I ever had about a circus picture. It's mine; it's a circus picture; it's what I want. But what happened?"

He was hypnotized and asked to explain.

When I had the canvas stretched like you told me to, I knew I had plenty of time. So I worked on it as slowly and as carefully as I could. I painted just the way I always do-slowly. And I had trouble, too. I knew the clown's coat had to be blue and the ribbon and the Ferris wheel also. They had to be the same shade of blue but a different blue. I used different pigments for each one, and it was an awful slow job mixing those different pigment combinations to get the same shade of color. And I had trouble with the horse's mane. I wanted to work out an entirely new technique for that, and I finally succeeded. [The critics also commented favorably on that item of technique.] But I didn't have to hurry because I had plenty of time. And then when I had it finished,

I studied it a long time, making sure that it was all right, and when I was finally sure, I signed it. Then I picked up my sandwich and woke up. I didn't remember a thing, and when I saw the picture I got puzzled and scared. I even examined the studio doors—they were still locked on the inside. So I knew that I had better see you in a hurry. But it is a good picture. Be sure you help me to know that I really painted it.

While he now knows he painted it, his general understanding of the entire matter is sketchy and vague, but his satisfaction is unchanged. A year later he commented on the "curious fact" that in daylight the three shades of blue are identical but that under different lighting effects they are dissimilar. From this he had "deduced" that he "must have used different pigments."

Therapy was terminated a few sessions after the completion of the picture.

## **Comment**

Regardless of the dynamics involved, the hypnotic suggestions given, and the purposes served for the patient, one fundamental fact remains. This is that a task conceived of as requiring, on the basis of long experience, a total of about 70 hours, was accomplished in six with no known preliminary preparation, at a totally unexpected time and in a fashion alien to established patterns of behavior and work. The parallelism between this report and many of the experimental findings reported in the first part of this book is at once obvious and pertinent.

## **PATIENT B**

This next case report is decidedly different. It is an example of the intentional therapeutic use of time distortion as a consequence of a failure to secure results by other methods. And since therapy was the desired goal, there was no opportunity to utilize the clinical situation to demonstrate time distortion *per se*. Rather its existence as a reality in the situation was assumed, and all efforts were directed to the securing of therapeutic results as a direct outcome of its utilization.

The patient was a 30-year-old twice-married woman who was known to have suffered from recurrent episodes of hysterical amnesia characterized by essentially complete personal disorientation. These attacks dated from two years prior to her second marriage six years ago. Since it had been a hasty wartime marriage, her second husband knew practically nothing about her past except that she was a widow with two children and that she had recurrent "sick spells when she didn't know nothing."

She was first seen in consultation while hospitalized with amnesia. She gave the date as 1934 and described herself as a woman but could give no other information. She did not recognize her name, her husband, or her children. She complained of a severe headache, and her appearance and behavior corroborated this complaint.

She made, as was usual for her, a sudden spontaneous recovery after three weeks in the hospital and left hurriedly in a state of terror upon discovering where she was.

She was seen at home the next day. She was fully oriented but still frightened. She explained that many times in the past she had suddenly awakened in a hospital after being unconscious for days at a time or even weeks. However, she was uncooperative about further questioning or therapy.

She was seen again five months later. During that time there had been a number of brief amnesic periods during which she had been cared for at home by constant supervision. Now she was again amnesic, and the only information that could be elicited was that she was a woman and the year was 1934. She was hospitalized and heavily sedated for a week. She then made her usual sudden spontaneous recovery, but this time she was cooperative about therapy.

She was interviewed daily for the next three months from two to four hours each day. Only a scanty outline history of her present marriage could be obtained. As for her previous life experiences, she knew only that she had been widowed, but not the year, although she knew the birth dates of her children. Nothing more of apparent significance was elicited. Mention of the date 1934 was without any apparent meaning to her. She expressed doubts about the correctness of her first name. This lack of knowledge of her past was most frightening to her, and every inquiry caused her intense anxiety.

Concerning her amnesic states, she regarded them as periods of unconsciousness. She described them most unsatisfactorily. Typical of her accounts is the following: "When I woke up in the hospital, the last thing I remembered was walking down the street when a truck came along." Or, it could have been going to the store or reading a newspaper.

During those first three months every possible effort was made to secure some understanding of her problem. Since she proved to be an excellent subject, every hypnotic technique known to the writer was employed, to no avail. While she could be regressed in age, such regression was limited to the relatively normal happy periods of the past eight years. Indeed, every effort to reconstruct her past by whatever technique was restricted to some limited period of the recent past. Automatic writing and drawing, crystal gazing, dream activity, mirror writing, free association, random utterances (i.e., every fifth, eighth, or tenth word that comes to mind), depersonalization, disorientation, identification with others, dissociation techniques, and other methods were futile. It was obvious that she was trying to cooperate, but only relatively meaningless material of the recent past was secured.

Additionally during this time she developed frequent amnesic states of one to three days' duration. During them she always gave the date as 1934. While she could be hypnotized deeply in these states, and hypnotic phenomena elicited, these were restricted and limited in character to various aspects of the actual office situation. Thus she did not recognize the writer but did regard him as a possibly friendly stranger. She viewed the wall calendar as "some kind of a joke," since it did not read 1934. She could hallucinate readily and would count the books in an hallucinatory bookcase. She would write simple sentences upon request, but did not seem to understand what was meant when efforts were made to have her write her name, geographical location, or age. Nothing that impinged upon her personal life seemed to be comprehended. However, to a colleague experienced in hypnosis but unacquainted with her, she was obviously in a trance. She would awaken from these trances in the amnesic state.

These amnesic periods usually terminated after a night's sleep, or if more than a day in duration, responded to heavy sedation.

On one occasion, in the writer's presence, she chanced to see through the window a Borden's milk truck, and immediately she developed a three-day amnesia. Several days after her recovery, during an interview, she happened to see on the writer's desk, purposely placed there, a small calendar advertising Borden's milk. Another three-day amnesia occurred. Later she was asked to copy a weekend sales advertisement. Upon

reaching the item of Borden's milk, a third three-day amnesia ensued. Still later, while discussing recipes, Borden's milk was mentioned by the writer with a similar result. Finally she was asked what a male hog was called and what a bear slept in. She gave the correct answers. She was then asked, with careful emphasis upon the key words, "What would happen if you put a boar in a den?" Her reply was simply, "I guess the bear would eat him."

However, the amnesic states were frequent and were apparently caused by a variety of other stimuli not recognized by the writer.

Every effort was made to secure some measure by which the amnesias could be interrupted or aborted. Finally a very simple measure was found. Since she could be regressed to a previous age within the eight-year limit, and since she always gave the date as "sometime in 1934" when amnesic, the regression technique in reverse was employed. Thus she would be hypnotized and in a systematic, repetitious fashion be told, "Yes, it is 1934, and the seconds and the minutes are passing one by one, and as the seconds and the minutes pass, so do the hours, and with the passage of the hours, so do the days pass. As the days pass, so do the weeks. The weeks come and go and the months pass and 1935 is coming closer and 1934 is passing, passing. And after 1935 will come 1936, which will pass, and then it will be 1937," etc., until the current time was reached. Frequent need to utilize this technique rapidly reduced the initial period of 30 minutes to less than five in bringing her out of her amnesic state. On two occasions, when she wandered away from home and was picked up amnesic by the police, her memory was promptly restored by this technique.

A laborious, futile effort was made, following this success, to regress her from 1934 to 1933 or earlier. Then an effort was made, after getting her to accept the argument that there were years antedating 1934, to induce her to forget 1934 and to experience the date as 1930, with the hope of building up from that date. This and numerous variations of the general idea failed.

After three months' failure to make recognizable progress with her it was decided to employ time distortion.

In the guise of sharing personal satisfactions in past professional experimental work, several prolonged sessions with her were devoted to presenting the general concepts and experimental procedures of time distortion, all as something of only intellectual interest to her. In so doing it was hoped to avoid any measures of defense against this therapeutic approach.

This was done in both the waking and the hypnotic states. When she seemed to have a good comprehension of world, solar, clock, special, experiential, and allotted time, time distortion, and time distortion experiments, the suggestion was offered that she might like to engage in an experiment comparable to those that had been read and explained to her. She agreed readily and seemed to be under the impression that the project was essentially a mere continuation of the already published study.

The next day she was hypnotized deeply and instructed as follows:<sup>1</sup>

You have many times taken a trip in a car and enjoyed it immensely. The car was moving very rapidly. You saw this sight, you saw that scene, you said this, you said that, all in an ordinary way. The car moved fast, but you were sitting quietly, just going along. You could not stop the car, nor did you want to. The telephone poles were so many feet apart and they came along one by one and you saw them pass. You saw the fields and they passed by, large fields, small fields, and you could only wait quietly to see what would be in the next field, and to see whether the next house would be brick or frame. And all the time the car went along and you sat quietly, you saw, you thought, all in your own way, at your own speed, just as it happened, and the car just kept going. You did not need to pay attention to the car, *just to what next would happen*, a field, a house, *a horse or whatever was next.*"

"However, this experiment will not be a car ride. I have just used it to explain more fully to you. I could have described going through the cooking of a dinner—peeling potatoes, washing carrots, putting on pork chops—*anything that you could have done.*"

"Now I'm going to give you much more time than you need to do this experiment. I will give you 20 seconds world time. But in your special time that 20 seconds will be just as long as you need to complete your work. It can be a minute, a day, a week, a month, or even years. And you will take all the time you need."

"I will not tell you yet what your experiment or task is. As soon as you nod your head to show that you are ready, I will start the stopwatch and give you the signal now, and very rapidly I will name the task and you will start at the beginning of it, the very beginning, and go right through to the end, no matter how far away it is in time. Ready? All right, listen carefully for the click of the watch, my signal, and the name of the task. *Now—from Childhood to Now—remember!*" [The Now was repeated as literally a double signal.]"

Her response was a tremendous startle reaction, a gasp, a marked physical slumping in her chair and a frozen facial expression.

Twenty seconds later she was told, "Stop," and was asked, "Through?"

"Yes."

"Will you tell me if I awaken you?" "Yes."

For several hours there was a tremendous outpouring of her past traumatic memories. These were related in a most remarkable fashion. She detailed them as if they were actually in the course of happening, or as if they were items of the very recent past, and at

the same time, in a dissociated fashion, she offered comments and interpolated remarks bearing upon much later events. For example, she began her account with:

"My dress is pink. It's my birthday. I'm sitting in a high chair. I'm going to eat my cake. My daddy is going to kiss me. He falled down. That's what happened. My father died of heart failure. I was three years old. Pink dress. When Deborah [her daughter] wanted a pink birthday dress, I forgot everything and I went to the hospital. I couldn't think. My head ached. . . . I'm going on a train ride. Mummie is taking me. It's fun. See the pretty trees. There's cows, too. Mummie is coughing. She's sick. Her handkerchief is all red. [Pulmonary hemorrhage.] I'm scared. My mother is so sick. And every time Elaine [her second daughter] had a nose bleed, I got sick. . . . I'm so tired and thirsty—he keeps doing it—he's going to kill me—I wish somebody would come." [This was a long story of being tied hand and foot to a bed for three days and repeatedly raped by a man named Borden.]

Another account was that of her delivery in 1934 of her stillborn child resulting from the rape, and her vivid report of the delivery scene and her grief over it. "That's when everything in me died. I couldn't stand to remember."

Three more instances that may be cited are her first husband's infidelity and the finding of a love letter from his paramour in his effects, and her present husband's receipt of a letter from a former fiancée, with a consequent amnesia resulting for her; the suicide of one of the girls in the maternity home during her own stay there by hanging from a chandelier, and her own daughter of similar age tying crepe paper to a chandelier as a Christmas decoration; and the inexplicable death of her third child while lying in bed one night, and reading a newspaper account of a similar instance. All of these were vividly described in the present tense and then related to actual amnesic episodes.

There were many more comparable traumatic experiences recalled and discussed, all in chronological order. This required many hours before she could complete her review of her past. Various of the events could be verified, some appeared to be hysterical fantasies of a morbid character, and yet later some of these were found to be true.

Her therapeutic response to this catharsis was decidedly good. However, there were several more brief amnesic episodes, but each time she recovered promptly and was able to define the precipitating stimulus and to relate it to either an incompletely discussed trauma or to one that had been overlooked. In each instance the precipitating stimulus lost its effect upon her. For example, upon moving to a new location, she readily purchased her milk from the Borden truck that traveled that street.

Shortly after all this her husband deserted her. She responded by divorcing him, securing employment, and supporting her children adequately. Her employers thought highly of her.

Therapy was discontinued upon her gaining employment, except for brief casual visits at long intervals.

In final appraisal, two years after termination of therapy, she was still an hysterical personality type, but well controlled and functioning at an adequate personal, social, and economic level.

### **Comment**

What happened during that eventful 20 seconds after months of futile effort, and how it happened, can be speculated upon best in terms of the experimental findings reported in the first part of this book. That the previous work with the patient quite probably laid the foundation for the final outcome does not militate against the significance of what occurred in 20 seconds time.

Her narrative of what happened, extended over many hours, was given largely in the present tense. Yet at the same time it was given with interpolated comments and explanations relating long-past events of her life with those of the recent past. This indicates that the narrative was not a simple initial revivification of the past. Rather it strongly suggests that in those 20 seconds she had achieved a sufficiently comprehensive recollection of her life history to be able to see it in meaningful perspective. Then, in her narrative, couched in the terms in which she had reacquired her memories, she communicated it to the writer for his understanding and at the same time achieved for herself an effective catharsis of her experiential past.

Before utilization of time distortion, therapy was a clinical failure. Twenty seconds of time distortion, whatever that may mean clinically, resulted in a therapeutic success of a known two years' duration.

### **PATIENT C**

This case report concerns a relatively circumscribed emotional problem for which the concept of time distortion was employed as an expeditious and experimental measure.

The patient, a 25-year-old student working his way through college, was primarily interested in the field of entertainment. His voice was fair and he accompanied himself on a guitar. Because of his promise as a singer, a night club gave him regular weekend employment. Unfortunately, as the weeks went by, his performance showed no improvement, and he was notified that he would be replaced at the first opportunity. This had caused him much discouragement, anxiety, and depression, and he sought therapy because of his hopeless attitude.

His history disclosed nothing of immediate significance except that his studies and his regular weekday employment on a late shift, in addition to the weekend engagement, gave him practically no time for practice.

Further inquiry disclosed that his late shift was characterized by spurts of activity followed by intervals of idleness.

This fact suggested a possibility for utilizing time distortion. Accordingly the question of hypnosis was raised with him, and he dispiritedly expressed his willingness to try anything. He proved to be a good hypnotic subject and was easily trained in hypnotic phenomena.

This accomplished, he was systematically instructed, under hypnosis, in Cooper's experiments on time distortion until his understanding of the general concepts was good. The suggestion was offered that he might participate in a time distortion experiment. He was disinterested in the idea but did consent reluctantly. He preferred that attention be given to his problem.

Accordingly, on a Monday, while in a profound trance, he was given a series of posthypnotic suggestions. These were that he was to utilize, from time to time, each night the idle periods at work to develop brief 10- to 30-second trances. During these trances, at an hallucinatory level, he would have adequate special personal time to practice extensively both his singing and his playing. Since the trances would be brief in clock time, and since his practicing would be hallucinatory in character, his fellow-workers would not note more than that he appeared momentarily self-absorbed.

He was awakened with a total amnesia for the trance instructions and given an appointment for the next Monday.

He reported excitedly at that interview, "I've got a new lease on life. Saturday was the best night I have ever had. Sunday night I did so well that the boss said that if I kept on that way, I could be sure of my job. I don't understand it because I didn't get a chance all week to practice. But Sunday I got out my tape recorder and made a new recording. Then I played it and some of my old recordings for comparison. Sunday's sounded as if I had had a lot of practice. I was amazed to find out how much I had improved. I must have unconsciously ironed out some emotional kink that was interfering."

Hypnotized, he explained that he had averaged at least three long, as well as several brief, practice sessions per night. During the long sessions he went through his repertoire, and the brief sessions were used for the practice of individual selections. Each time everything seemed to proceed at a normal tempo. Additionally, he frequently made an hallucinatory tape recording which he "played back" so that he could listen to his practicing and thus note errors for correction. At no time had any of his associates seemed to notice his periodically preoccupied state. He expressed his intention of continuing with this method of practice and supplementing it with ordinary practice.

At the present time, many months later, he still has all of his jobs and his weekend stipend has been greatly increased. He has enlarged his repertoire, and he practices at every opportunity in the ordinary state and in posthypnotic trances in time distortion.

He is still unaware of his trance activities but is greatly amazed at the rapidity with which he learns new selections.

To date he has made no effort to apply this special learning in any other way. Nor has such a suggestion been offered to him, since the excellent therapeutic result might possibly be jeopardized by other experimental efforts.

### **Comment**

This case report is essentially a parallel of some of the experimental findings reported by Cooper. While the validity of this report rests upon the bare facts of the patient's statements and his continued employment at an increased stipend, there can be no question that the concept of time distortion served a significant personality purpose for the patient. Additionally, of particular note is the fact that the patient elaborated the suggestions given him by including an hallucinatory tape recorder to further still more the hallucinatory practice sessions, and that he has continued to utilize time distortion in learning new selections.

### **PATIENT D**

The manner in which this patient sought therapy was both challenging and baffling. Her seemingly impossible demand was met by the utilization of time distortion, which resulted in amazing and surprisingly rapid therapeutic results.

She was a 19-year-old girl employed in a dental office, and she suffered from a severe reaction to the sight of blood. Usually she fainted, although occasionally she became only nauseated and greatly distressed. Otherwise she was a competent and willing employee and genuinely interested in dental work. She was directly referred for therapy by her employer, who expressed a hope to retain her services and at the same time a fear that her behavior of the past few months precluded any such hope.

She arrived at the office accompanied by a chaperone. She seated herself and smoothed her dress down with exaggerated modesty and was utterly brief and final in her statements. She declared that she had come for therapy, that this was to be accomplished in a single interview, and that hypnosis was to be employed.

The protest that she was demanding a miracle was disregarded by her. She merely reiterated her demand.

When asked for her history, she replied, "The doctor [her employer] has already told you over the phone. All the time I've worked for him, I've fainted every time I saw blood, and I hate being picked up off the floor over and over again. I'm going to lose my job and I want to work in a dental office. That's my ambition. That's all you need to know. Now, I want to be cured. I want you to hypnotize me right away and cure me." It was as if she had indicated an aching tooth and was demanding an extraction.

A deep somnambulistic trance was induced with remarkable ease. Asked if she were ready for therapy, she shook her head negatively and asked that "things" be "changed." This cryptic request led to an inquiry about the chaperone's presence. She asked that the chaperone be dismissed "tactfully."

When this was done, she hastily and with great urgency declared, "I'm scared—I don't know why—*"I'm afraid to think and I won't think.* You have got to hypnotize me some more or I'll wake up—I just can't stay asleep. Just keep me asleep and *don't let me wake up.* You have got to help me, *but don't let me know about it until it's all over, and do it fast or I'll wake up and faint.* *I don't want to know anything and I don't want you or anybody else to find out what's wrong.* So don't try to find out and don't let me wake up." Much of this was repeated with emphasis.

She was assured that her wishes would be met to the fullest extent. The suggestion was offered that first of all it might be well to have her experience, as a means of keeping her hypnotized and as a measure of giving her satisfaction, the various common phenomena of the hypnotic trance. She agreed readily as if being given a reprieve, but admonished the writer not to forget the problem of therapy afterward.

For 50 minutes she enjoyed thoroughly experiencing a great variety of the common hypnotic phenomena. Care was exercised constantly neither to impinge upon her personal life in inducing the hypnotic manifestations nor to seek any understanding of her as a person.

She was then told, while still in the trance, that there remained a couple more phenomena which she could enjoy. One of these was related to time and would really center around a stopwatch, which was exhibited to her.

With every effort to be instructive, she was reminded of the rapidity with which time passed when she was pleased, how slowly when bored, the endlessness of a few seconds' wait for an intensely regarded outcome of a matter in doubt, the rapidity with which a mere word could cause to flash through the mind the contents of a well-liked book or the events of a long, happy trip and the tremendous rapidity and momentum of thought and feelings.

Against this background a detailed elaboration was presented of the concept of distorted, personal, special, or experiential time as contrasted to clock time. Extensive discussion was also offered of the "normal tempo" of distorted or experiential time.

When she seemed to understand, the explanation was offered that this hypnotic phenomenon could be initiated for her by giving simple instructions which she could easily accept fully. These instructions would be followed by the starting signal of "Now," at which time the stopwatch would be started. Then, when the phenomenon had been completed, she would be told to stop. This explanation was repeated until she understood fully.

Then with compelling, progressive, rapid, emphatic, insistent intensity she was told, "Begin at the beginning, go all the way through in normal experiential tempo with a tremendous rush of force, skipping nothing, including everything, and reach a full complete understanding of everything about *Blood-Now*."

She reacted to the word "blood" by a violent start, trembled briefly, became physically rigid, and clenched her fists and jaw. She appeared to be in acute physical distress but too rigidly involved physically and mentally to break into disruptive actions.

Twenty seconds later, at the command "Stop," she relaxed, slumped in the chair, and breathed hard.

Immediately she was 'told emphatically, "You now know, you understand, you no longer need to fear. You don't even need to remember when you are awake, but your unconscious now knows, and will continue to know and to understand correctly, and thus give to you that ease you want."

She was asked if she wished to awaken or to think things through. Her reply was, "I've done my thinking. Wake me up."

Her waking remarks were, "I'm all tired out. I feel simply washed up. Where is Miss X [the chaperone]? What's been going on—did you put me in a trance—did she see me?"

The reply was made that she had been hypnotized and given an opportunity to learn hypnotic phenomena, but that Miss X had not been a witness. She asked that Miss X be summoned and some unimportant demonstration be given to show Miss X what hypnosis was.

When this had been done, she remarked, "I suppose I owe you a fee, but I don't even know why. But I am going to make you wait for it. I don't know why."

She was told to return in one month's time. She replied, "I suppose I will, but there is no reason to do so," and thereupon took her departure.

Late the next day her employer telephoned, stating, "Whatever you did, worked. She has assisted all day in comfort, handling extracted teeth, washing out bloody trays, and even picking up bloody teeth and examining them. I haven't said a word about you nor has she and I don't think it wise."

Three weeks later part of the fee was received. A week later she came in to say, "I don't know why you want to see me. There is no reason. I've had to get another job. My boss is going into the Army. So I've got another job. It's with Dr. Y [a dentist who does extractions]. I like being a dental assistant."

A few days later a telephone call was received from her. She inquired about the balance of the bill and expressed regret for having overlooked it. Asked about her work, she

declared that it was wonderful and that she would place a check in the mail immediately, as, indeed, she did. Her good adjustment is known to have continued for more than a year.

### **Comment**

To discuss this report without emphasizing the obvious is difficult. One can readily state that it demonstrates that sometimes brief psychotherapy can be remarkably effective; that the dictum that the unconscious, if therapy is to be achieved, must be always made conscious warrants serious doubt; and that the concept of time distortion lends itself in a remarkable way to clinical therapeutic work.

What the patient's problem was and the nature of its causes remain unknown, even to her conscious mind. Equally probable is that therapy by other methods, given more cooperation, could have led to a similar therapeutic result. However, the fact remains that, whatever her problem was and how the therapy was achieved, the concept of time distortion proved applicable and effective under adverse conditions in meeting adequately the patient's needs.

### **PATIENT E**

The following case is reported for two reasons. It illustrates a problem comparable to the preceding case history in that, despite much previous therapy, the entire therapeutic result was determined by the handling of a single session. Secondly, the crucial situation was one in which time distortion could have been used most advantageously but was not, since it antedated Cooper's experimental work. Viewed in retrospect, however in terms of what happened and the final result, the utilization of time distortion could easily have resolved the ominous difficulties that developed.

Two young women in their mid-twenties had been intimate friends since early childhood. Now they were roommates and engaged in the same occupation. Each had influenced the other in the choice of work. Both were members of a minority group and had grown up in a community rife with prejudice. Both encountered prejudice in their daily work. Each confided in the other, and they regularly exchanged sympathy and encouragement. Their identification with each other was remarkably strong, and their relationship was definitely sisterly in type. Their adjustment within their own group was good, but they were both regarded as decidedly neurotic and they themselves recognized their neurotic patterns of behavior. Each encouraged the other to seek psychotherapy but neither had the courage to do so for herself.

Their neuroses deepened, and one night Kay complained that all day she had felt strange and different. Peg tried to comfort her but found her peculiarly unapproachable. The next morning Kay was even more disturbed, and on the way to work her erratic behavior attracted the attention of the police. When hospitalized she manifested an acutely catatonic state.

For about a month Peg brooded over Kay's condition, wondering obsessively if she should "let myself go like Kay did." Her work performance failed greatly, and she spent much time staring into space.

Finally, and reluctantly, she decided to seek therapy. Four psychiatrists were consulted, two of whom stated that their schedule was too full. The other two declared that they did not have the training requisite for her problem. She was then referred to the writer. Inquiry of the other psychiatrists disclosed that they felt that she was an "incipient, if not an actual catatonic," and not amenable to therapy at the time.

Hypnotherapy was employed from the beginning, but progress was slow, uncertain, and difficult. Frequently she appeared on the verge of an acute psychosis. Repeatedly during interviews, both in the waking and the trance states, she would ponder the idea of "giving up" and "letting myself go just the way Kay did."

One evening she entered the office for her usual appointment wearing a completely new outfit, including even hat, shoes, and handbag. Most seriously and in a frightened manner she declared, "I don't know what I'm doing. I can't afford these clothes. Either I'm going to improve or I'm having a last fling before they lock me up. Maybe my unconscious knows."

With this remark she closed her eyes and developed a deep hypnotic trance. She was asked why she had purchased the new clothes. She answered, "I don't know. Either I'm going to get well or I'm going to get worse. Wake me up."

She aroused with an apparent amnesia for her trance state. Immediately she asked, "Instead of working, can't we have a little casual conversation?" However, after a few commonplace remarks she declared suddenly that she had just remembered that she had dreamed the previous night. This dream, she knew, was tremendously important, but she could not recall its content. Perhaps a little reflection would enable her to remember it.

After a couple of minutes of thoughtful silence she leaped to her feet and screamed, "No, no I won't remember any more. I won't. I won't. It's too horrible. I'm going to forget it so that I can never remember the rest of it. It's too horrible. I'd go crazy if I remembered it."

The, speaking to herself, she proceeded to utter a whole series of auto-suggestions, patterned after the writer's technique of suggestions, to induce an amnesia. She concluded then with a self-satisfied remark, "I've just forgotten something. I don't know what it was even about, but I do know that I can't even think of what it might be. It's completely forgotten."

In a subdued, frightened way she continued. "I know I've done something I shouldn't have done, but I don't know. It was wrong, but I'm glad I did it, awfully glad. But now I will have to give up therapy because there is no hope for me, and I'm glad. Good night!"

With difficulty she was persuaded to remain at least long enough for a social visit, but she kept declaring, "It's no use."

However, she was finally induced to review superficially and disinterestedly some of the work of previous sessions, but was adamant in her refusal to permit further hypnosis.

Finally she was persuaded to allow the writer to try and find out what she had done that was wrong and which had made everything "all over" for her. She agreed reluctantly, but again stipulated that hypnosis was not to be employed.

A whole series of speculations was offered to her, among which, in random order, were included, dreaming, remembering a dream, and forgetting a dream. She listened attentively and thoughtfully but discarded every possibility named.

She then announced her intention of leaving at once and going to visit Kay, "because I'm going to do something horrible when I get to her ward."

The plea was offered that she stay a little longer to please the writer. She yielded reluctantly but began pacing the office. She smiled to herself, pirouetted, waved her arms, fiddled, and now and then stared abstractedly into space. Her attention could be secured fairly readily, although only briefly.

At last, after much persuasive effort, she consented to be hypnotized but declared that she would terminate the trance and walk out of the office, never to return, if there were any hint at therapy or even investigation of her ideas.

A number of trances were induced and utilized to elicit demonstrations of the common hypnotic phenomena in an impersonal manner.

When an effort was made to induce crystal gazing, she protested that that measure had been used therapeutically with her. She was reassured by having her hallucinate a rosebush and count the roses on it.

However, any attempt at depersonalization, disorientation, or regression elicited prompt protest and treats of waking and leaving.

More than four futile hours were spent in laborious efforts to gain control of the situation. In retrospect the concept of time distortion could have been readily and easily utilized. With the first development of her adverse reaction there could have been made a shift from the therapeutic situation to a simple experimental situation involving distorted time. Then in all probability her behavior would have paralleled that of Patient B or E.

However, after this extensive effort with her, a solution of the situation was finally reached by means of a simple, fortunate stratagem.

She was told, "Since you are terminating therapy and I shall not see you again, I would like to ask a parting favor. I hope you will grant it. It is this. You entered the office wearing a new outfit and I was glad to see you. Now I would like to hypnotize you and send you out of the office to enter it again as you did earlier, so that once more I can have the pleasant feeling I had when I first saw you tonight. Will you do this?"

She agreed and a deep trance was induced. She was instructed, "Leave the office, walk up the hall a short distance, turn, and then *come down the hall and enter my office in exactly the way you did upon arriving, feeling and believing as you enter that you have just arrived, and give me the same initial greeting.*"

In her willingness to grant this parting favor she was so attentive to the actual wording of the instructions that she failed to perceive their significant implications.

She obeyed the instructions exactly and thus reentered the office regressed in time to the moment of her original arrival. Thereby an amnesia had been effected for everything that had already occurred in the office.

In this new psychological setting it became relatively easy to guide a second course of developments.

By techniques of dissociation, depersonalization, disorientation, and crystal gazing, the patient was enabled to achieve adequate insight into and understanding of both the dream and the uncooperative, disturbed behavior related to it.

Thereafter the course of therapy was favorable and rapid, and it was soon terminated as successful. More than eight years have verified this judgment.

### **Comment**

Perhaps technically this case report, like that of Patient A, may be regarded as not belonging properly to this series. However, it illustrates, and all the more clearly since it is in retrospect, how the concept of time distortion, had it been available, could have been applicable and effective in an extremely difficult therapeutic situation. In its absence hours of futile anxiety, which certainly did not benefit the patient, had to elapse until a fortunate stratagem of psychological maneuvering met the patient's needs. Otherwise the probable outcome would have been regrettable.

Furthermore this case presentation illustrates the constant need, in every field of endeavor, to review the past in terms of newer understandings and thus to achieve a better comprehension of both the old and the new.

## **PATIENT F**

This final case report concerns a difficult psychiatric problem in which therapeutic progress was exceedingly slow and difficult until resort was had to the utilization of time distortion.

The patient, in his mid-twenties, complained of a variety of symptoms. He suffered from overwhelming obsessional fears of homosexuality; he had frequent disabling headaches; he was extremely fearful and shy; he loved from day to day without any interests; he was both agoraphobic and claustrophobic; and he was afraid to look at women because they became hideous creatures in some inexplicable way that caused him to be afraid to look at them.

These symptoms, of more than six months' duration, had developed rapidly some 18 months after he had completed his military service, but he could not attribute them to any particular set of circumstances nor to any particular time. They had merely developed with such distressing rapidity that he was not able to remember their onset nor the order in which they appeared.

The personal history he gave disclosed little of recognizable significance, nor was he at all interested in discussing it. His concern was a repetitious recounting of his present condition.

However, it was learned that his military history was creditable and that he had had active combat experience. Upon discharge from the Army he had systematically visited numerous relatives in the East and then had come to Arizona for employment.

Shortly thereafter his father and stepmother had moved to Arizona because of his father's health. While he did not live with them, he visited them weekly until shortly before entering therapy, and he supported them willingly. His relationship with them both had always been and still was good.

His mother had died "when I was just a little boy. It was on my tenth birthday. She was awful good to us kids. There were eleven of us. She dies suddenly, I guess it was her heart. We were awful poor and it was a really tough struggle. We were glad when Dad married Mom. This got easier then."

Further extensive questioning elicited one other item of possible significance. This was that shortly prior to the onset of this symptoms, contrary to his usual habit, he had slept poorly and had had most disturbing dreams, none of which he had remembered subsequently.

Then one morning on his way to work he saw a pretty girl, but a close look disclosed her to have the hideous appearance of a "rotting corpse." This terrified him. Further down the street he was another girl approaching, and as they met she too assumed the appearance of a "rotting corpse." Doubts of his sanity came to his mind, and these were reinforced by the discovery that every female he met became transformed into a similar

revolting sight. When he finally reached the large factory room where he worked with a score of other men, he felt protected and most grateful to them, but drawn to them emotionally in a "horrible, sentimental way."

Thereafter journeying back and forth and working became nightmare experiences for him.

On payday he had to stand in line in a small office to receive his check from a young female clerk. He became oppressed by the small size of the room and felt hopelessly trapped. Following this he was unable to sleep in his room unless the windows were open and the door slightly ajar, and repeatedly during the night he would awaken to see if all were well.

He sought therapy because he felt himself on the verge of insanity, with suicide the only other possible alternative.

Therapeutic interviews for many weeks yielded little more than a compulsive, repetitious recounting of material already related. He was averse to hypnotherapy and insisted that if he talked long enough, he would succeed in "talking it out."

Finally, since his funds were being exhausted, he was persuaded to permit hypnosis as a possible stimulant to more rapid progress. However, he emphasized that actual therapy must be limited to the waking state. Accordingly it was agreed that the hypnosis would be employed simply to give him access to unconscious material which could then be discussed in the waking state.

He proved to be a good subject and, after intensive training to insure a good hypnotic performance, his permission was asked for a therapeutic investigation. This was refused, and he insisted anew on only waking therapy.

Accordingly he was told that an experiment requiring 10 to 20 seconds' time could be done that would undoubtedly enable him to get at the core of his difficulties. Reassured by the brevity of the time required, he consented readily.

He was systematically taught a working knowledge of time distortion in much the same fashion as has been described above.

When this had been completed, he was given the following instructions:

With this stopwatch I will give you an allotted world time of 20 seconds. In your own special experiential time, those 20 seconds will cover hours, days, weeks, months, even years of your experiential life. When I say "Now," you will begin the experiment. When I say "Stop," you will be finished. During that 20 seconds of world time you will sit quietly, neither speaking nor moving, but mentally, in your unconscious, you will do the experiment, taking all the experiential time you

need. This you will do thoroughly, carefully. As soon as I give you the starting signal, I will name the experiment and you will do it completely. Are you ready?

"Now—Go through all the causes of your problem. Now."

"Stop."

Immediately he awakened, sighed deeply, wiped the perspiration from his face and stated, "It was my mother. She always told me to trust her. I was so mad when she died and I hated her."

He paused, and then went on to explain, very much as Patient B did but with much less tendency to vivify so intensely. He employed tenses in a comparable fashion and interpolated explanations similarly.

A summary of his utterances is as follows:

I was a little boy sitting in her lap. I cam home from school and I fell and bit my tongue and she told me to trust her. That was her way of comforting. I suppose, but I didn't understand. The cat scratched me [rubbing his hand]. Always she said "trust me." She promised me a birthday party when I grew up. I waited and waited—hundreds of days. I can feel that waiting right now. It was so long. I waited for her to tuck me in bed—she is good. I waited for her to get me a penny for candy—I waited and waited. Always she said "Trust me." It all happened right here in this room, but I thought I was back in Pennsylvania. I had to run home from school because I played too long and I was late. And always, always, always, I heard her say, "Always trust mother, just trust Mother, you can always trust Mother." She is just saying it to me over and over and over all the years.

I have just been growing up from a little boy. Everything that happened to me that made mother say "Trust me" has just been happening right here.

There are so many of them. I can tell you them if I should, I don't need to because they all led to the same thing. [He was assured that other details could be given later.]

I was 10 years old that day. Mother promised me a special birthday dinner and cake. We were too poor to have those things. I wanted it so bad. She kept telling me all day, "Trust Mother to make your cake, the best cake you will ever have in all your life." She is going in the kitchen, she stopped, I saw her get pale. She said her arm and shoulder hurt and she went to bed and I sat and watched her die. The last thing she said was "Trust me." I was mad at her—she promised me and she always told me to trust her and I did and I didn't have my birthday. I hated her—I was sad, too. I didn't know how to feel and I was scared. But I forgot all that. I just remembered it here.

And then Dad and Mom came to Arizona. I visited them regular. Then one day he told me confidentially that he had cancer and that the doctors said he had only a month left to live. [Actually the father lived nearly a year.] I was feeling bad about this. I heard him tell it to me just the way he did then. Then later Mom said, "This is the tenth birthday of our marriage," and I froze up still and I just now heard her say it again just like she did then. Then I was going to bed and trying to sleep, but I kept waking up because I kept seeing dead bodies. I hated them. They were my mother. And every one of them kept saying "Trust me." And I tried to run to my Dad and climb into his lap and I wanted him to love me and comfort me and put his arms around me. And I could not find him anywhere and everywhere I looked, I saw Mother dead and saying "Trust me."

And the next day everything began. The girls on the street, my crazy ideas.

That's how my problem started. Now it's over with.

The patient was right. Therapy was complete except for a few more interview. During these he reviewed various incidents of the past and discussed his confused thinking and emotions as a child and his consequent development of intense guilt reactions.

A year has passed. He is engaged to be married and is happy and well adjusted.

### **Comment**

One can only speculate on how long a time therapy by other methods would have required. Equally well one can wonder how time distortion, in 20 seconds, could effect a removal of such massive repressions and activate into seemingly current reality so great a wealth of experimental life.

Undoubtedly the preceding efforts at therapy and the established rapport constituted a significant and essential foundation for the therapeutic results obtained. It does not seem reasonable to this writer that in this kind of a problem time distortion could be used as an initial procedure. But the results do indicate that time distortion has definite clinical and therapeutic applications.

### **GENERAL SUMMARY**

Perhaps the best way to summarize these clinical studies is to refer the reader to the conclusions at the end of the experimental section of this book.<sup>2</sup> In so doing the parallelism between the experimental findings and the clinical findings is easily recognized.

Study of the concept of time distortion by controlled experimental research led to findings of definite psychological interest and significance. The same concept was utilized independently in the totally different field of clinical and therapeutic problems. It yielded results confirmatory and supplementary of the experimental findings. The

therapeutic results obtained indicate the validity of the concept of time distortion and its applicability to psychopathological problems.

There remains now the need for further and more extensive and varied study of time distortion both as an experimental psychological problem, and as a useful concept applicable to clinical and therapeutic work.

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<sup>1</sup>These instructions are probably much too elaborate, but a first experimental therapeutic effort with a new methodology is not an occasion for economy. They are presented rather fully in order to demonstrate the effort at comprehensiveness.

<sup>2</sup>From Time Distortion in Hypnosis. Baltimore: Williams & Wilkins, 1954. Reprinted with permission of the publisher.

## **Further Considerations of Time Distortion: Subjective Time Condensation as Distinct from Time Expansion**

Milton H. Erickson and Elizabeth M. Erickson

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Shortly after the publication of the first edition of this book one of the authors of this new section (E.M.E.) noted a definite oversight in the development and explication of the concept of time distortion and its clinical applications. This new section is intended to correct that omission and to clarify, from a slightly different angle, the concept of time distortion and other aspects of its clinical application.

In both the experimental and the clinical sections of this book the concept of time distortion has been developed unilaterally in relationship to the "lengthening" or "expansion" of subjective time. The converse manifestation—that is, the "shortening," "contraction," or "condensation" of subjective time—has received no direct recognition or elaboration, except for brief mention in discussions to establish contrast values. However, the implications to be derived from, and the deductions warranted by, the experimental and the clinical sections of this book make apparent that time distortion as an experiential phenomenon may be either in the nature of subjective "time expansion" or its converse, "time condensation."

Though not then recognized as such, the first experimentally and clinically significant instance of hypnotic time condensation known to these writers occurred some years previous to the initial work basic to the first edition of this book. The situation was that of a young woman trained as a hypnotic subject for the delivery of her first child. No suggestions of any sort had been given her concerning her perception of time except that she would "have a good time" and would "enjoy having her baby."

Nevertheless, spontaneously she experienced the following subjective phenomena:

1. The 20-mile automobile ride to the hospital seemed to be remarkably rapid, despite her repeated checkings of the speedometer, which always disclosed a speed within established limits.
2. The elevator ascent to the maternity floor seemed to be unduly rapid and in marked contrast to the definite slowness of subsequent rides in that elevator.
3. The delivery room preparation of the patient seemed barely to begin before it was completed.

4. Nurses seemingly dashed in and out of the hospital room, orderlies appeared to run rapidly up and down the corridor, and everybody apparently spoke with the utmost rapidity. She expressed mild wonderment at their "hurried" behavior.
5. The obstetrician "darted in and out" of the room, "hastily" checking the progress of her labor, and he seemed scarcely to complete one examination before beginning the next.
6. The minute hand of the bedside clock appeared to move with the speed of a second hand, an item of bewilderment on which she commented at the time.
7. Finally, she was transferred to the delivery room cart and was "raced" down the corridor to the delivery room, where the minute hand on the wall clock was also "moving with the speed of a second hand."
8. Once in the delivery room the transfer to the delivery table, the draping of her body, and the actual birth of the baby seemed to occur with almost bewildering rapidity.

Actually the labor lasted a total of three hours and 10 minutes and had been remarkably easy and unhurried. Detailed inquiries to the mother subsequent to delivery, supplemented by various pertinent comments she had made during labor, served to furnish an adequate account of the greatly increased subjective tempo of all the activities comprising her total experience. All of this, she explained, had "interested" her "mildly," but she had been much more interested in the arrival of her baby. The interpretation offered at that time of her subjective experience was the simple jocular statement that she "obviously just couldn't wait for the baby."

Cooper's development of the concept of time distortion, however, makes apparent the fact that the patient, in her eagerness to achieve motherhood, spontaneously employed the process of subjective time condensation, thereby experientially hastening a desired goal.

The above case report is a strikingly illustrative example of spontaneous experiential condensation of subjective time. However, this phenomenon is one of common experience in everyday living. We all readily recognize how pleasures vanish on fleeting wings, but to date it has been primarily the poet who has best described time values, as witness: "Time travels in divers paces with divers persons. I'll tell you who Time ambles withal, who Time trots withal, who Time gallops withal, and who he stands still withal." [Shakespeare, As You Like It, Act III, Sc. 2, lines 328 ff.]

A common general recognition is easily given to time condensation in daily living. The vacation is so much shorter than the calendar time, the happy visit of hours' duration seems to be of only a few minutes' length—indeed, too many pleasures seem to be much too brief. Unfortunately, in the very intensity of our desire to continue to enjoy we subjectively shorten time; and conversely, in our unwillingness to suffer we subjectively lengthen time, and thus pain and distress travel on leaden feet.

These spontaneous, untutored learnings from everyday experiences suggest the importance of a continued and even more extensive study of time distortion in both of its aspects of subjective expansion and condensation.

In our experience, as well as the experience of various colleagues, the ready reversal of the usual or ordinary learnings of subjective time distortions seems to be limited primarily to learnings achieved in relation to hypnosis. In this regard a wealth of observations has been made on hypnotic subjects in both experimental and clinical situations.

To cite an example, a dental patient who had an extensive knowledge of hypnosis and who was definitely interested in subjective time expansion sought hypnotic training for dental purposes. The results achieved did not derive from the actual hypnotic instructions given but were expressive of the patient's own wishes for subjective experiences. Dental anaesthesia and comfort were achieved by a process of dissociation and regression, by which she subjectively became a "little girl again and played all afternoon on the lawn." As for the dental experience itself, as she remembered experiencing it subjectively, she adjusted herself in the dental chair, relaxed, opened her mouth, and was astonished to hear the dentist say, "And that will be all today." She surreptitiously checked her watch with his clock and then another clock before she could believe that an hour had elapsed. Yet at the same time she was aware of the prolonged, dissociative, regressive, subjective experience she had had as a child for an entire afternoon.

Thus within the framework of a single total experience both subjective time expansion and time condensation were achieved to further entirely separate but simultaneous experiences, that is, simultaneous as nearly as the writers can judge.

Another subject, untrained in time distortion, was employed repeatedly to demonstrate hypnotic phenomena at the close of an hour long lecture. After the first few occasions the subject developed a trance state at the beginning of the lecture which persisted until the demonstration was concluded. By chance it was discovered that thereafter the subject inevitably misjudged the lapse of time by approximately the duration of the lecture. After repeated observation of this manifestation inquiry elicited the significant explanation from the subject, "Oh, I just stopped the clock. I didn't want to wait all that time while you lectured." By this she meant that she did not wish to experience the long wait for the close of the lecture. Instead she had arrested subjectively the passage of time and thereby reduced it to a momentary duration. Or, as she expressed it in her own words, "You see, that way you start the lecture, I go into a trance and stop the clock, and right away the lecture is over and it is time for the demonstration. That way I don't have to wait." In other words she had subjectively arrested the passage of time and thereby had reduced the duration of the lecture to a seeming moment.

That report is but one of many similar accounts that could be cited. One of us (M.H.E.) has repeatedly encountered over a period of years, while assisting in conducting postgraduate seminars on hypnosis, volunteer subjects, themselves physicians, dentists, or psychologists, who have spontaneously developed time condensation. Furthermore they have done this without previous training in hypnosis or in time distortion.

Usually the situation in which this manifestation developed was one wherein the teaching needs of the lecture period required the repeated withdrawal of the instructor's attention from the volunteer subject.

One such subject, in a post-trance review of his hypnotic activities in an effort to develop a more adequate understanding of hypnotic phenomena, inquired at length about the nature and genesis of his apparently altered visual perception of the lecture room clock. He explained that during his trance state he had been distracted and fascinated by his discovery of a repeated sporadic movement of the minute hand of that clock. This hand, he explained, did not consistently move slowly and regularly. Some of the time it did—specifically, during those periods when the instructor kept him busy at various tasks. When left to his own devices because the instructor's attention was directed to the classroom, he noted that the minute hand "would stand still for a while, then jerk ahead for maybe five minutes, pause, and then perhaps jerk ahead for another 15 minutes. Once it just slid around a full 30 minutes in about three seconds' time. That was when you were busy using the other subject [a second volunteer]. It annoyed me when you kept demanding my attention when I wanted to watch that clock." Inquiry disclosed that his awareness of the passage of time had greatly decreased. In other words he, too, had "stopped the clock."

Another example of the experiential values of time condensation relates to the experience of a dentist who employed hypnosis extensively in his practice. Unfortunately, in the individuality of his personal technique in maintaining a trance state he conditioned his patients to a continuing succession of verbalizations. Even more unfortunately, as he became absorbed in the intricacies of his work on the patient, he would find himself unable to verbalize. The result was that his patients would arouse from the trance state, to the mutual distress of both dentist and patient. One of the writers (E.M.E.), on the basis of her own personal experience, suggested that he employ time condensation by teaching it to his patients so that they might abbreviate the time between his verbalizations and thus become unaware of his silences. The results for that dentist were excellent.

Two further instances of the clinical use of time condensation in the therapy of individual patients can be cited. The first of these is the report by one of us (M. H.E.) given before the Arkansas Medical Society in May 1958 on "Hypnosis in Painful Terminal Illness" and accepted for publication in 1959 by The American Journal of Clinical Hypnosis. In this report an account is given of the teaching of time condensation, in association with other psychological measures, to a professional man in the last stages of painful terminal carcinomatous disease. The clinical results obtained in this patient definitely indicated a highly significant relief of the patient's distress, a part of which was directly attributable to time condensation. Particularly for this patient did time condensation appear to preclude variously a subjective awareness, memory, and anticipation of pain. The usefulness in this one case suggests the possibility of its utilization as a clinical measure of reducing subjective awareness of physical distress and pain.

As a final illustration of time distortion involving both subjective time condensation and time expansion in a complementary relationship, a clinical history from the practice of

one of us (M.H.E.) is cited. In this report an account is given of the experimental-clinical therapeutic procedure employed in the alleviation of a symptomatic manifestation.

The patient, a 50-year-old socialite, was referred by her family physician for hypnotherapy. For many years she had suffered a yearly average of 45 severe incapacitating migrainous headaches, for which there had been found no organic basis. She had often been hospitalized for these attacks because of severe dehydration and uncontrollable vomiting, and the attacks lasted from not less than three hours to as long as three weeks.

Although the patient was desirous of therapy, she was incomprehensibly demanding, dictatorial, and actually uncooperative as far as psychotherapeutic exploration was concerned. She wanted all therapy to be accomplished, very definitely so, within four visits at intervals of two weeks. Hypnosis and any hypnotic procedures considered valuable by the therapist were to be employed, with the exception of any psychological investigative procedures. The entire situation was to be so handled that she was not to have any seriously incapacitating attacks—that is, attacks of over three hours duration—in the six-weeks period of her therapy.

However, it was also her demand that, since she had these headaches for many years with great regularity, she wanted them to continue, but in such fashion that they would serve to meet her "hidden personality needs" but without interfering with her as a functioning personality. (The patient was intelligent, college-bred, well-informed, happily married, and a devoted grandmother.) She suggested that the character of the headaches might be changed but not the frequency. However, this was but a suggestion, she declared, and she was content to rest this responsibility upon the therapist.

In reply to her the demand was made that the therapist required as a special consideration that she report yearly to him as a form of insurance of her therapy. After careful thought, she agreed to do so for two years providing no fee was charged, but thereafter the therapist would secure any information from her family physician.

Despite her attitude toward therapy in directing it, restricting procedures, and establishing limits, she was readily accepted as a patient, since she presented an excellent opportunity for a combined experimental and clinical approach. When informed of this type of acceptance, she agreed readily.

The actual approach to her problem, in addition to being oriented to her demands, was based upon a combined experimental-clinical procedure utilizing in sequence subjectively condensed and expanded experiential time, employing the one to enhance the other. She proved to be an excellent subject, developing a profound somnambulistic trance within 10 minutes.

The first instruction given to her was that she was to accept no suggestion that was contrary to her wishes and to resist effectively any attempt to violate any of her instructions. Next she was told to execute fully all of those instructions given her in

actual accord with her expressed desires. In this manner her full, responsive acquiescence was secured in relationship to both her resistances and her actual cooperation with possible therapeutic gains.

The therapeutic plan devised for her was relatively simple. The first procedure after the induction of a deep trance was to instruct her fully in the concepts of time expansion and time condensation. Then she was told that she was, without fail, to have a relatively severe migraine attack of not more than three hours' duration sometime within the next week. The severity of this attack and its termination within three hours were imperative for adequate therapeutic results.

The following week she was to have another and even more severe attack. It would differ, however, from the headache of the preceding week in that, while it would last in subjective or experiential time slightly more than three hours, it would last in solar time as measured by a stopwatch not more than five minutes. Both of these headaches were to develop with marked suddenness, and she was to go to bed immediately and await their termination. The patient was then awakened with an amnesia for her trance experiences and informed that she was to return in two weeks. Meanwhile she was not to be disturbed or distressed by any headaches she might have.

When the patient was seen two weeks later, she developed a trance readily upon entering the office. She reported that she had obeyed instructions fully and had experienced two headaches. The first persisted two hours and 50 minutes, and the second almost five minutes. Nevertheless the second headache seemed to be much longer than the first, and she had disbelieved her stopwatch until she had checked the actual clock time.

The first headache had developed at 10 A.M. and had terminated at 10 minutes of one o'clock. The other had begun sharply at 10 o'clock, and she had seized her stopwatch for some unknown reason and had proceeded to lie down on her bed. After what had seemed to be many hours, the headache had terminated as suddenly as it had begun. Her stopwatch gave the duration as exactly four minutes and 55 seconds. She felt this to be an error, since she was certain that the time must be somewhere near mid-afternoon. However, checking with the clocks in the house corrected this misapprehension.

With this account completed, the next procedure was to outline the course of her therapy for the next two weeks. To insure her full cooperation instead of her wary acquiescence she was instructed that she was first to scrutinize them carefully for their legitimacy and then to answer fully a number of questions. In this way she was led into affirming that 10 o'clock in the morning was a "good time to have a headache"; that Monday morning was the preferable day, but that any day of the week could be suitable if other matters so indicated; that on occasion it might be feasible to have headaches on successive days and thus "to meet personality needs" for a two-week period instead of "meeting them" on a weekly basis of one headache per week. It was also agreed that she would have to consider the feasibility of having a "spontaneous, unplanned" headache at rare intervals throughout the year. These however would probably be less than three solar hours in length. To all of this the patient agreed. Thereupon she was instructed to have headaches

of less than five minutes each beginning at 10 o'clock on the next two Monday mornings. Again she was awakened with an amnesia and dismissed.

Upon her next visit the patient demanded an explanation of the events of the preceding two weeks. She explained that she had had two social engagements which she had canceled because of a premonition of a headache. In both instances her premonition had been correct. Both headaches were remarkable in her experience. Both were so severe that she had become disoriented in time. Both made her feel that several hours had passed in agonizing pain, but a stopwatch she had felt impelled to take to bed with her disclosed the headaches to be only a couple of minutes in duration.

She was answered by the statement that she was undergoing a combined experimental-clinical hypnotherapy that was developing adequately and that no further explanation could be offered as yet. She accepted this statement after some brief thought and then developed of her own accord a deep trance state. Immediately she was given adequate commendation for the excellence of her cooperation, but no further explanation was offered and no inquiries were made of her.

Further therapeutic work centered around teaching her a more adequate appreciation of subjective time values. This was done by having her, still in the trance state, determine with a stopwatch the actual length of time she could hold her breath. In this way it became possible to give her an effective subjective appreciation of the unendurable length of 60 seconds, to say nothing of 90 seconds.

Against this background of stopwatch experience she was given hypnotic suggestions to the effect that henceforth, whenever her "personality needs" so indicated, she could develop a headache. This headache could develop at any convenient time on any convenient day and would last a "long, long 60 whole seconds" or even an "unendurably long, painfully long, 90 seconds." It would quite probably be excruciatingly painful. When it was certain that the patient understood her instructions, she was dismissed.

She returned in two weeks to declare it was her last visit, since she expected therapy to be concluded. Thereupon she developed a profound somnambulistic trance. She was immediately told that the therapist wished to review with her the proceedings of the previous interviews and the resulting events. She replied, "That is all so unnecessary. I remember perfectly everything in my unconscious mind. I understand that I approve and I will cooperate fully. Is there anything new you wish to tell me?"

She was reminded that it was possible that on rare occasions she might develop an "unexpected, unplanned, completely spontaneous headache."

She replied that she remembered and that if there were nothing more to be done, she wished to terminate the interview without delay. Upon the therapist's assent, she roused from the trance, thanked the therapist, and stated that a check would be sent in three months' time, at which time she would send also a preliminary report.

The reports received in the next two years and from her physician since then have all disclosed that the patient benefited extensively. She has on the average about three "unexpected headaches" a year, lasting from two to four hours. At no time has she required hospitalization, as had been the case previously.

However, once a week, with ritualistic care, usually at 10 o'clock on a Monday morning, she enters her bedroom, lies down on the bed, and has a headache, which she describes as "lasting for hours but the stopwatch always shows it only lasts from 50 to 80 seconds. It just seems for hours. And then I'm all over every bit of it for another week. Sometimes I even have those headaches on two successive days, and then I'm free for two weeks. Sometimes I even forget to have one and nothing happens."

### **CASE SUMMARY AND GENERAL COMMENT**

This last case history illustrates a number of important considerations. It demonstrates effectively both the value of the experimental psychological approach in psychotherapy as contrasted to traditional methods, and the efficacy of an alleviation of a symptomatic manifestation when adequate allowance and provision is made for the unknown personality structure and its resistances to therapy. Also, it discloses clinical and experimental possibilities in the varied utilization of two distinct aspects of subjective time distortion.

However, of greater significance for the purposes of this book, this case history in conjunction with the material preceding it demonstrates the importance experimentally, clinically, and experientially of subjective time distortion whether as time expansion or as time condensation.

# **Clinical and Experimental Trance: Hypnotic Training and Time Required for their Development**

Milton H. Erickson

Unpublished discussion, circa 1960.

My primary interest in this roundtable discussion today arises from a certain unhappy conclusion that has been forced upon me repeatedly after reading reports of hypnotic experiments, discussing the problems of hypnotic experimentation with various workers interested in the field, witnessing the hypnotic techniques employed by various students of the subject, and after recalling the innumerable errors, oversights, and serious mistakes committed by myself in the course of my own work. That unhappy conclusion, briefly stated, is that the whole field of hypnotic research is still so undeveloped that there is very little general understanding either of how to hypnotize a subject satisfactorily for experimental purposes, or of how to elicit the hypnotic phenomena which are to be studied after the subject has been satisfactorily hypnotized. From all that I have gathered, except in a few carefully made studies the general tendency is to carry on experimental work in hypnosis by employing a type of trance that is suitable primarily for the purpose of clinical demonstrations intended to give a general comprehensive survey of the types of behavior that may be elicited in the trance state, but actually unsuitable for the detailed experimental investigation of a specific form of behavior. In support of this one need only to recall the contradictory, unsatisfactory, and unreliable results usually obtained in specific studies of hypnotic manifestations.

The reason for such a confusion in experimental results is the typical utilization of a clinically satisfactory trance in experimental situations. The induction of a clinically satisfactory trance leads directly to the development of a peculiar psychic state of passive responsiveness in which the subject automatically accepts and acts upon any suggestion given as a purely responsive form of behavior. This type of hypnotic response I regard as satisfactory for clinical work only. A further and much more difficult step lies in the utilization of the subject's passive responsiveness to secure a spontaneous development of a pattern of behavior merely initiated by the suggestions given; I regard this type of response as experimentally satisfactory.

To state this more explicitly, in the clinically satisfactory trance the subjects perform as instructed in accord with their understandings of what the hypnotist wants. Thus the hypnotist not only suggests the behavior but also, though perhaps only indirectly, governs and controls the course and the extent of its development, thereby eliciting behavioral responses oriented primarily about the hypnotist. In the experimentally satisfactory trance the entire orientation of hypnotic responses is totally different. Suggestions given are accepted passively but are utilized only as initiating stimuli for the desired pattern of behavior, the development of which then occurs independently of the hypnotist and is in entire accord with the subjects' general reaction trends and their understanding of the

behavior suggested. Thus their responses are oriented not about the hypnotist but about the behavior as a thing complete in itself, thereby rendering the behavior itself the primary issue and not the behavior situation.

To illustrate these various points material may be cited from various experiments. In one instance an unpleasant artificial complex was suggested to a subject, who responded to it with every clinical evidence of having accepted it fully. However, when tested by a modified Luria technique for objective experimental evidence of the acceptance of the complex, the findings indicated that the complex simply had not been accepted and that it had not been a valid psychic experience. Investigation disclosed that, in giving the suggested complex, the subject had unwittingly been forced by the hypnotist's instructions to mail an unfortunate letter around which the complex centered in the "*mailbox on the street corner*," when the mailbox habitually used by the subject and the only one actually available to him in the suggested experience was located in the middle of the block. By thus limiting and restricting the subject to a performance of what the hypnotist wanted done and thereby precluding the subject's own natural, self-determined development of the suggestions given, there resulted only a clinically satisfactory acceptance of the complex, but an acceptance not experimentally demonstrable.

Correction of the error to a mailing of the letter in the "*regular*" mailbox permitted an acceptance of the complex experimentally demonstrable through disturbances on the word-association test, involuntary motor responses, and respiratory changes. This is not an isolated instance, but it is a finding that has been made many times not only by myself but by others working on complex implantation.

Another type of example concerns the processes involved in inducing the reliving of an actual past experience. In one instance, later verified as to its accuracy, the subject was reliving his experience of driving a team of horses along the road. Quite unaccountably he suddenly stopped the team, and no explanation could be obtained except that he was "waiting." Impatience with the delay led to the giving of repeated, insistent suggestions that he drive on, but without effect. Indirect suggestions that the horses had started again were perceived by the subject not as hypnotic suggestions but as an impatient starting up by the horses themselves, and were responded to by a jerking on the imaginary reins and a shouting of "Whoa." Extensive inquiry finally disclosed the delay to be occasioned by a flock of geese impeding traffic, and not until the last one was safely out of the way would the subject proceed, regardless of the insistence of the hypnotist's suggestions. Thus the role of the hypnotist was limited strictly to the initiation of the process of reliving, and once started it continued in accord with the *actual experiential patterns of response individual to the subject*. Even when the hypnotist succeeded in intruding into the situation by his attempt to direct and control the course of developments, this was reacted to in a way appropriate only to the immediate psychic situation of the subject. This was an experimentally satisfactory trance.

Still another example may be cited to illustrate the integrity of the subject's own spontaneous development of the suggestions given in the experimentally satisfactory trance. In this instance the subject was known to be planning to attend for a second time a movie in which he was greatly interested. Accordingly hypnotic suggestions were given

to the effect that he was actually doing so in the company of the hypnotist and that he was describing the movie fully as he watched it. After this process had been initiated and a sufficient account of the movie had been obtained, repeated attempts were made to interrupt his performance. The subject, however, announced firmly his intention not only of sitting through the entire show but of attending the second show also, and all suggestions to the contrary were rejected until resort was made to the not uncommon experience of having the film break and the show interrupted. Suggestions to this effect permitted the initiation of another behavioral process entirely in accord with the subject's experiential past and leading to the desired goal. An essentially identical experience occurred on another occasion with a different subject, and the same type of behavior has been obtained from many subjects and in relation to a great variety of hypnotic manifestations. Yet in all of these subjects it was possible at any time to elicit the same type of behavior but at a purely responsive level, subject to the control and direction of the hypnotist as is typical of the clinically satisfactory trance but lacking in that peculiar quality of subjective, experiential validity that obtains in the experimentally satisfactory trance.

Now the points I have raised so far serve to emphasize that *hypnosis can be employed to elicit purely responsive behavior*, which apparently constitutes a remarkable and vivid portrayal of memories, experiences, and understandings in a fashion adequate to permit a general comprehensive survey of the various forms of hypnotic behavior, or that it may be employed to initiate by suggestion spontaneously developed forms of behavior comparable to those evoked by outer realities. It is my belief that the former type of hypnotic behavior serves best to demonstrate clinical possibilities, while the latter type offers an opportunity for the experimental investigation of specific forms of behavior.

However, if I have given the impression that the hypnotic trance in a given subject is always one or the other of these two forms, I wish to correct that misapprehension immediately. Because of the individual peculiarities of subjects one always finds admixtures of the types of hypnotic responses I have characterized. In a total of approximately 500 individual subjects I have not found one who was simon-pure in either regard, but it is my experience that the majority of subjects can be trained to develop the more experimentally satisfactory trances.

Now that I have presented some views upon what constitutes a satisfactory experimental trance, I might summarize my remarks by an attempt at a definition of that trance state: *An adequate experimental trance state is one in which the passive responsiveness of the subject is utilized only to control and direct the selection of the general type of behavior desired, with the entire course of the development of the behavior once initiated dependent upon the individual reaction patterns of the subject.*

The next consideration for discussion concerns the problem of the proper technique for experimental hypnotic work. This includes not only the technique of trance induction but the techniques of suggestion requisite after the trance state has been induced. However, I have nothing to add to the general understanding of how to induce a trance except to stress the importance of making full provision for all individual differences and

peculiarities of the subject and the highly personal character of the hypnotic relationship. I also want to emphasize the absolute importance of the element of time itself in securing hypnotic phenomena. This consideration has been sadly neglected despite the general recognition of the fact that time itself constitutes an absolute function of all forms of behavior and that the more complicated the form of behavior, the more significant is the time element. Hence I will limit my discussion to a consideration of this item.

To present this point I will give material illustrative of the general attitude and the common practices prevalent in hypnotic work which ignore the importance of the time element, and which consequently lead to a misdirection, misinterpretation, and an inadequacy of experimental work. This general attitude and the attendant practices derive from an unrecognized tendency to look upon hypnosis as a miracle producer, a tendency that probably arises from the startling phenomenal character of hypnotic manifestations. Because of this tendency we find many experimental investigations based upon techniques better adapted to the evocation of miracles than to the eliciting of hypnotic manifestations. Because of the oversight or neglect of the element of time, there is a marked confusion of the significance of the suggestions given with the processes of response and the actual behavior invoked. To illustrate, we find quantitative studies made of hypnotic phenomena by controlling the suggestions given by use of a certain phonograph record as if such a measure could control the nature and extent of the development of the response processes so aroused in different subjects; we find studies of amnesia accomplished by means of a simple direct command to forget chosen material followed by proper testing for evidence of amnesia; we find studies on dissociation based on the assignment of two tasks followed by a strict injunction that they are to be performed simultaneously but independently of one another; we find experiments on regression conducted by the simple measure of telling a 30-year-old subject that he is now 10 years old and promptly administering an intelligence test to secure evidence of the regression; we find experiments on hypnotic anaesthesia performed by direct suggestion of it and a direct testing for it; in brief we find, despite our knowledge that behavior constitutes an end-product of a long process of complicated reactions, that in hypnotic work the assumption is made repeatedly that the process of hearing and understanding instructions is identical with the process of the development of the behavior the instructions are supposed to elicit.

Another type of illustration which typifies an observation I have made repeatedly is the general belief that the induction of a sound hypnotic trance requires only a relatively brief period of minutes. Thus one worker, representative of many I know, assured me most earnestly that it was never necessary, even with naive subjects, to spend more than 15 to 20 minutes in inducing profound trances and that the average length of time for him was five to 10 minutes. Also he assured me, as have many others, that once the subject was hypnotized, the induction of any specific type of complicated behavior was simply a matter of giving appropriate suggestions. While I am ready to concede that trances can be induced and experiments conducted by such techniques, I doubt if the trances are ever more than the type I have described as clinically satisfactory only; the experimental results are therefore nothing more than evidence of passive responsiveness oriented about the suggestions given.

Now the question arises, what is the proper length of time that should be spent in inducing an experimentally satisfactory trance or in eliciting hypnotic behavior adequate for experimental investigation? No definitive answer can be given, not only because of individual differences between subjects but also because of differences within the subject in relation to various types of behavior. Hence the only safe procedure is to give suggestions in such fashion and sufficiently slowly that subjects have an opportunity not only to respond in a passively responsive fashion in accord with the hypnotist's suggestions, but also an opportunity to respond in accord with their own understandings of the behavior desired and to develop their responses in accord with their own reaction patterns. Only the latter type of behavior is to be accepted as evidence of an experimentally satisfactory trance. This implies the need for extensive experience to enable the scientific investigator to discriminate between the types of the behavioral responses obtained, but I know of no easier way until sufficient experimental work has been done to discriminate more satisfactorily between clinical and experimentally satisfactory trances.

Returning to the question of the actual length of time required, I can speak only from my own experience, which is supported by that of certain other workers, chiefly psychiatrists, interested in establishing in their subjects valid experiential processes by hypnotic techniques. My finding has been that on the average a total of three to eight hours, usually in interrupted sittings, should be spent in training a good unsophisticated subject to develop a sound hypnotic trance before there can be any experimentally valid attempt to elicit the various forms of hypnotic behavior. Once the subject has been trained adequately to develop a satisfactory trance, a period of at least 20 minutes should be spent in inducing each new trance intended for experimental work, although this period can gradually be shortened to five or 10 minutes.

Next is the question of how much time is required to elicit any specific form of behavior after a sound trance has been induced. For example, when it is desired to develop an amnesia for a series of nonsense syllables just learned, it is necessary to give the subject a period of 20 to 30 minutes and even longer to permit the development of an easily demonstrable amnesia, as shown by a relearning of the amnesic material in the waking state. Or, if it is desired to have the hypnotized subject develop a psychic blindness, a period of 20 to 30 minutes must elapse after the suggestion has been given before any attempt should be made to secure and test that behavior. That period of waiting is best spent in casual conversation, unrelated activities, with an occasional reiteration of the suggestion that sooner or later the subject will experience the desired effect. Even the giving of a complicated, attention-compelling task to subjects to keep them busy will not militate against the development of the desired behavior. The essential consideration seems to be the provision of a sufficient period of time to permit the development of a mental set conducive to the behavior. Unless this period of time is allowed, the subject's response, while in accord with the suggestions given, will be marked to the critical observer by inhibitions, denials, avoidances, and blockings not in keeping with a valid experiential response. The following example will serve to clarify this point.

Recently I suggested hypnotic blindness for two persons in the room. After a 20-minute wait I gave the same suggestions to two other persons and then proceeded to test the responses of all four subjects. The original two subjects demonstrated an entirely satisfactory blindness, but for the second two the psychic blindness was marked by avoidances, inhibitions, conflict reactions, and blockings which persisted for half an hour. After this time the psychic blindness for the second group became satisfactory. When we realize the importance of time in the evolution of behavior in the ordinary life situation, its importance in hypnotic behavior can be more fully appreciated.

I will close with the statement that I believe hypnotic experimentation constitutes one of the richest fields for research; it warrants every bit of time given to it; and, that as one's experience grows, the amount of time required for specific investigative procedures diminishes.

# **Laboratory and Clinical Hypnosis: The Same or Different Phenomena?**

Milton H. Erickson

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In late 1924 and in the spring of 1925 two similar isolated but most interesting events occurred. Subjects H and W, who had worked extensively as hypnotic subjects for the author but who were unknown to each other, were both on University of Wisconsin athletic teams. In the fall of 1924, at practice for a coming meet, Subject H, during practice jumping, caught his tongue between his teeth and cut through completely one side of his tongue except for a narrow marginal edge. He was rushed to the hospital for surgical care. Upon being told that his tongue would require suturing, that he would be placed on a liquid diet, and that he would be disqualified for the coming athletic competition the next weekend, his reaction was most obstreperous. He rejected all medical help and advice and promptly sought out the author for hypnotic aid. He could not talk understandably because of the swelling of his tongue; he had to write an account of his mishap; and the author was then too naive about medical problems and too eager to experiment to exercise reasonable caution in a medical situation.

Within four hours H was free of swelling, pain, and handicap. He was not seen again for three weeks. Then he came rushing into the laboratory at an hour he knew the author would be there. He explained:

You remember that bitten tongue of mine about three weeks ago? First you hypnotized me and removed the pain. After I awakened from the trance, I did a lot of studying here in the lab, and you kept looking at my tongue every little while until the swelling went down and I could talk normally. Well, something else happened. On the way to my room [rooming house] from the lab that evening I developed an amnesia for the whole thing, and the memory of it just came back to me this afternoon, so I thought I had better tell you. It was a Saturday, three weeks ago, and the fraternity was having a special steak dinner that Sunday. I remember eating my share, but there was no pain or trouble with my tongue. At the next practice meet with the team some of the fellows asked me how my mouth was, and I didn't know what they were talking about, so I just said it was as big as usual. Then this afternoon I asked several of the fellows in my rooming house if they know about my biting my tongue. They didn't, and wouldn't believe me about it. They just said that there was never anything wrong with my mouth except that I used it too much. Then I went to Dr. S. [the physician who took care of injuries for the Athletic Department] and he said he was "still too disgusted" with me to talk to me. I asked him if I had bitten my tongue. He just looked me up and down and said, "You not only bit it, but you acted like a damn fool when I

wanted to give you proper medical attention and put you in the infirmary. But I suppose you thought you could get better medical treatment by going downtown for it. I should have kicked you off the team." To this the patient added, "But I did all right in the meet that weekend—one first place and one third place."

Since his interest was psychology (he later became a professor of psychology) a discussion ensued of all that had really occurred hypnotically. There finally resulted his spontaneous observation:

What you did for me is exactly like what we have done in the laboratory except that it is different. In the laboratory I accept suggestions and carry them out thoroughly. I've experienced anaesthesia before. It was just as good as the anaesthesia you produced in my tongue. But laboratory anaesthesia, no matter how real, belongs to the laboratory. It is a part of a scientific study. What you did for me was just as real as any hypnotic anesthesia I ever had in the lab. But it was mine, all mine—not even you could have a part in it—it was mine. Maybe I can say it this way. I am a student. I am a member of the student body. The physical identity is the same. The meanings are different. Lab hypnosis and personal hypnosis may give you similar results. But they are different to the person.

Concerning his amnesia he could offer no explanation, but he did suggest that he might find out if he were to be hypnotized and questioned. This was done and the simple answer received was, "I just didn't want the memory of biting my tongue to enter m head during the meet. After that it wasn't important. But this afternoon I was studying on memory processes so I just quit having an amnesia."

The author and H discussed all of this material but without reaching any definite conclusions.

The next spring Subject W sprained his ankle during athletic practice and came to the author that evening hobbling on crutches prescribed by the athletic department physician after an examination had disclosed "only a severe sprain."

He gave an account of his accident, the coming athletic contest, his present severe pain, and then he asked if all the hypnotic work he had done in the laboratory could be employed to meet his present personal needs.

As with H, the problem was accepted, a hypnotic trance was induced, removal of pain and pain reactions was effected, and then regression was induced to effect a reestablishment of physical relationships as much as possible as they were before his accident. A final measure employed was temporary time displacement so that he could think about his sprained ankle as if it had occurred a year or so previously.

W (who later became a physician) won a place in two contests in the racing meet that weekend, and on the succeeding Sunday sought out the author because the temporary

time displacement had been spontaneously corrected. He was given a full recollection of events, and his resulting discussion, less extensive than that of H, was essentially identical in significance. The pertinent points were:

"The anaesthesia of the sprain was as perfect as anything I ever did in the lab but I still have the anaesthesia for pain. That putting of the accident into the past messed up the thinking of my teammates, but I was completely clear in my own mind and I wasn't troubled about their confusion about a sprained ankle I knew I had had a year or so ago. As I look over all the hypnosis you did for my ankle, it's just as good and real as any of the lab experiments. But it is different in a peculiar way. Hypnosis in the lab belonged to you, to me, to the psychology department to science. The hypnosis for my sprain, all of the hypnosis you used for the pain, in some way belonged just to me. The best way I can put it is to say: Just like the ankle sprain was all mine, so was the hypnosis. That, too, was all mine. Lab hypnosis and personal hypnosis can give the same results, but they are different in their personal meanings. Do you suppose these new ideas of mine will interfere with the work you have planned for me in the lab? I'd sure hate to miss it." (In no way did his new understandings interfere with his work as a subject.)

Quite contrary to the above accounts is another kind of finding. Over the years many excellent laboratory subjects who demonstrated the phenomena of hypnosis exceedingly well and who withheld seemingly searching tests were found to be either unwilling, actually unable, or perhaps only partially able to use hypnosis when it involved personal needs. For example, one college student used in the laboratory to demonstrate anaesthesia could undergo obviously painful test measures with no evidence that there was any pain experienced. Yet when this same subject suffered an accidental and actually minor injury requiring three sutures, in no way could hypnosis be induced to lessen the distress of his injury. Some nurses who have proved to be excellent demonstration subjects have been found to be completely unresponsive to hypnosis when suffering from even minor as well as major physical discomforts. For example, a nurse who satisfied a group of physicians that she could develop a profound anaesthesia was unable to develop an anaesthesia when she suffered a fall and bruised herself, even though medical examination of her injury pronounced it to be painful but not serious in any way. In other instances excellent demonstration subjects at times of their own need have not been able to develop more than light trances. Apparently this question of personal needs is one that is interpreted by individuals in their own way.

Another experimental subject, a music lover, was being used to test the possibility of hallucinated experience forming a part of a condition response complex. One of the things she did in this experiment was to hallucinate the rendition of her favorite musical compositions. However, this subject always demanded payment for laboratory work in a remarkable manner. For all participation in any kind of experimentation she insisted that payment had to be made by letting her hallucinate some music while the author was busy at some other experiment and thus not sharing anything more than time and space with her. She explained that music hallucinated for experimental purposes was identical with

the music she hallucinated for herself. There was only a personal significance which she did not want to share and could not explain.

In the years since then occasionally the author has encountered or dealt with persons who have had both laboratory hypnotic experience and medical or dental hypnotic experience. Of these, the more thoughtful have explained that laboratory hypnosis is one order of phenomena, that hypnosis involving significant physical needs of the self is another order of phenomena. An information nurse told the author:

You taught me a hypnotic saddle block at the medical society meeting the only time I was ever hypnotized. Later I got married and went to live in an isolated rural community. Neither a doctor nor a nurse was available when I went into labor about three weeks earlier than I expected to. I took the saddle block you taught me and changed it into mine. I'm sure your saddle block would have worked, but it was my baby, my first one, so I made the saddle block my own. My husband was away, caught by a forest fire, and the only person to help me was a newly married girl. But I was trained in obstetrics so I had no worries. The saddle block was just the same as yours, and then all at once it became different. It was personal. What that means maybe you can understand.

This nurse had been used as one of a volunteer demonstration group for the medical society. It was by mere chance that she was again met. Following her initial remarks she was questioned rather extensively. She was asked to describe more fully what had happened during the birth of her first child. She explained,

Being an obstetrical nurse, I knew I should have an episiotomy, but I knew that was impossible. But I remembered what you said about relaxation in your lecture so I relaxed my perineum. I don't really know how I did this, but I just relaxed it, but I kept all the feeling of movement because I knew I should know when the baby was born and when the placenta was passed. My friend helped me with the things that I couldn't do myself. When my husband got home three days later, he was very much surprised and had to go to get a doctor, since the telephone lines were still down. The doctor said everything was all right.

Since then I have had four more children. The next two I had in the hospital under "proper medical observation." The following two I had at home with a doctor in attendance. I have never had any medication or any anaesthesia for childbirth. The hospital doctor was very displeased because he did not like the way I developed my own saddle block. Neither did the general practitioner serving my community approve of my use of hypnosis. All doctors agree, however, that my pelvis is entirely normal. I don't know how to explain to you how I changed the saddle block you taught me into *my saddle block*, which I used for all five of my children. I would like to have you suggest a saddle block to me now, with me wide awake from the waist up, so I can discuss it with you, and after we have discussed it I will change it into *my saddle block*.

Her wishes were met. Her explanations can be summarized by the simple statement that:

They are both the same and yet they are different. The saddle block that I just produced seems to be a reliving of my saddle blocks during childbirth. The saddle block you induced, while it removed all feeling from the waist down just like mine did, seemed to be totally different but just as effective. I really wish I could give you more information. It just seemed to be a real experiencing of the saddle block you gave me in front of the doctors. In fact, I looked around almost expecting to see them.

Another finding, much more rare, has been encountered by this author and confirmed unexpectedly by several colleagues. It is that some persons who responded well to hypnosis directed toward their personal needs could not enter into the hypnotic state for either experimental or demonstration purposes. Yet they could do so readily for questioning about their possible personal needs, even in the presence of other, even lay, persons. Yet laborious effort and seemingly full cooperation on the person's part would not result in trance development. Also, after securing permission from such persons, a trance induced to inquire about personal needs would terminate when a shift was made toward experimental work. Yet these same persons would cooperate in experimental work in the waking state.

The above instances have been cited because of the clarity with which the hypnotic subjects (patients) gave their accounts. There have been, relatively speaking, many occasions on which there appeared to be a marked conflict between laboratory hypnotic findings and those encountered clinically. For example careful, well-controlled laboratory experiments may find hypnotic anaesthesia to be questionable and even of a most dubious character. Yet the clinician reports instances in which hypnoanaesthesia was successfully employed without any medication. Hence there arise the questions: Was the laboratory experiment on hypnoanaesthesia a reliable test of hypnotic anaesthesia, and was the surgical patient merely complaisantly cooperative? Are hypnotic subjects merely self-deluded in both laboratory and clinical (including even major surgery) settings? Can there be a reliable comparison of laboratory findings with clinical findings? Are they of the same order of phenomena? Does not the frequent contradiction between laboratory and clinical hypnotic findings imply other significant factors as signified by the above accounts? In what way can definitive laboratory experiments on hypnosis and clinical utilization of hypnosis be tested on the same scientific basis, or is this impossible with the present state of understandings? What are the determining factors in each procedure so far as the person involved is concerned? Should not personality factors and personal motivation be regarded as vital to both laboratory and clinical studies. Are laboratory hypnotic states and clinical hypnotic states *sometimes* identical, perhaps differing only in the subjects' recognition of them? These are only a few of the questions that need to be answered, if such answering can be achieved.

Most thought-provoking in relation to the findings reported above, as well as to the controversy about the use of hypnosis for antisocial purposes, are the informative and

outstanding reports on human behavior published by Milgram (1963, 1964, 1965). These are studies that should be read most thoughtfully by whomever undertakes either laboratory or clinical hypnosis, since they are indicative of the stresses a person in the waking state will endure and thereby, by inference, indicating that situations, motivations, obedience, and personality factors are highly significant in human behavior and response in a manner not yet understood in the waking state of a subject, much less in hypnotic states or other states of altered awareness.

# **Explorations in Hypnosis Research**

Milton H. Erickson

Presented at the Seventh Annual University of Kansas Institute for Research in Clinical Psychology in Hypnosis and Clinical Psychology, May, 1960, at Lawrence, Kansas.

I would like to present two concepts of different types of thinking: unconscious or subconscious thinking and conscious thinking. If I were to ask you to look at my watch and to continue seeing it right there, you would all know immediately, not being in a trance state, that I lowered my watch. In hypnotic response you would see the watch but it would be the psychical watch, and since I told you that you would see it right there, you would continue to see it right there and not in the moved position. You would substitute immediately the visual memory of that watch because there is an interchangeable use of reality stimuli and remembered experiences, visual memories, auditory memories, kinesthetic memories, etc. It is out of the use of these understandings, learnings, and memories in the mind that hypnotic subjects develop their behavior. In this state of special awareness, or special consciousness, the operator (the hypnotist) plays a role in communicating ideas to the subjects, of orienting the subjects in that unique, individual hypnotic situation which each particular subject finds himself.

The subjects need not necessarily accept anything the operator suggests. The subjects tend to respond in accord with patterns unique to each. In the hypnotic state the subjects are willing to accept ideas; to accept any idea that is offered. The subjects then take a second step: They examine the idea for its inherent value to themselves. That is one of the reasons for the time lag in hypnotic behavior. Time is needed for the examination of ideas, thoughts, and understandings. It is a very careful examination. That is why you have literalness in your subjects' understandings when you ask them this or that particular question. After having examined those ideas, there is the tendency to respond.

The subjects accept those ideas in terms of their own frames of reference and a lifetime of experiential learning. These experiential learnings may be unusual and quite unexpected. For example, there was a veteran who had leapt downstairs, fallen on the floor, picked himself up, and then walked back and forth to college every day for a week. Finally he came in to the Veterans Administration hospital to be examined because his foot was very swollen and because it made a noise when he walked. I happened to be the consultant on duty, and when I heard him walk across the floor, I winced. The X-ray showed a comminuted fracture of all the bones in the ankle. When I showed this veteran the X-ray, he said, "But I thought broken bones hurt." That's what he honestly thought. He had an hysterical anaesthesia extending almost up to the knee, with anaesthesia for deep pressure and vibration. How did he ever acquire such an anaesthesia except through some kind of experience, through some kind of learning? Our unawareness of stimulations, and our unawareness of pressure on muscles are body learnings which come from actual experience.

Let me illustrate another type of body learning. The postman hands a box to the college student. He takes it to his room and opens it—homemade fudge. He eats it and enjoys it. Two weeks later he is sitting, studying, and happens to look out the window and sees the postman coming down the street. Immediately he starts drooling, not because the postman looks appetizing, but because in a one trial learning situation (and a stimulation that did not lead to complete satisfaction until quite some time later, when he had unwrapped that unknown package) there was a linking of the postman's uniform with the salivation process. I stress this example because the laboratory learning of conditioned responses usually involves so many repetitions of stimuli before you finally achieve the desired conditioned response. Here a particular situation set up a conditioned response so that the very next time the student saw that postman, he drooled. Laboratory learning is suggestive, but far from identical with, the learning which real life experience makes possible.

If I were to ask any of you to elevate your blood pressure, how would you do it? If I were to ask you to change the rhythm or tempo of your smooth muscle function, or to alter the circulation of your blood in anyone part of your body, you would wonder how to do it. Yet your body has considerable experience in vascular dilation and contraction. When I was a medical school student, I clearly remember when our class would enter the lecture room of a certain professor. There would be a generally happy mood, and then the professor would snarl and say: "There will be a written examination!" My classmates would divide into two groups: (a) the diuretic group, and (b) the peristaltic group. There would be an almost instantaneous alteration of circulation and smooth muscle activity throughout the entire body, involving physiological, psychological, and neurological functioning. These alterations derived from the real-life experiences each one of us had had, time and again, in the past whenever we suddenly experienced altered patterns of body behavior, physiological behavior, somatic conditions, etc.

Let me cite still another instance of human behavior change. A little three-month-old baby boy is taken to a pediatrician. The baby doesn't pay much attention to the pediatrician clad in white. While at the pediatrician's he gets stabbed with a needle. Three months later, when the baby returns to the pediatrician's examination room, he begins to yell immediately. How did the baby get conditioned to understand all of that behavior, to alter all his physiological behavior? What kind of a memory does a three-month-old baby have of being stabbed in the bottom with a needle?

Throughout life there are various conditions of learning for individuals that involve their total functioning as organic creatures, where blood circulation, neural and muscle behavior, and other organ systems participate most actively. Whenever you set up the right kind of stimuli, you can elicit some of these experientially conditioned behaviors. It is possible to use hypnosis as a method by which you can secure patients' complete attention. It is then possible to focus their attention and to create a state of receptivity by such stimulation so that they function in accordance with those relevant past learnings.

I would like to stress that to be in a trance state does not mean that individuals are unconscious or that they cannot function with their conscious mind. I can think of a

parallel with the sleep state. A man may wake up in the morning with the realization that he has not completed a dream. He is aware that he is in bed, but would like to go back to complete the dream. He proceeds to do so, knowing that he is dreaming, that he is completing the dream of a delightful plane ride or a pleasant picnic with a dual awareness of operating in two spheres. I recall a physician who underwent surgery and who felt very sorry for the surgeon because the surgeon didn't believe in hypnosis. The physician-patient wondered if the surgeon were distressed or worried, if the surgeon was beginning to come around to some belief in hypnosis as an anaesthetic agent. He also wondered about the nurses who were watching the operation. Simultaneously this physician-patient was on a "fishing trip" in Canyon Lake, delighted to find how well the fish were biting, and pulling them out of Canyon Lake one after another—all the while enjoying a delightful fishing trip. This physician-patient functioned with a dual awareness: He was aware he was in the operating room where he had an hypnotic anaesthesia which was necessary for his own surgery, and at the same time he was also participating in a fishing trip. When the tray of instruments fell on the floor, there was a "simultaneous" jump of a big fish out of the water, accompanied by a big splash and noise as the fish fell back in. The physician-patient wondered whether he was merely reinterpreting the stimulation of the fallen tray and translating into the jumping of the big fish even while the event was happening. He demonstrated excellent dual functioning at two different levels of psychological awareness.

I regard hypnotic techniques as essentially no more than a means of asking your subjects (or patients) to pay attention to you so that you can offer them some idea which can initiate them into an activation of their own capacities to behave. The best way to illustrate this point is by way of a clinical example. Barbara was a 14-year-old girl who had been failing in her adjustments at school and had developed serious behavior manifestations. She said her feet were too big, so she was not going to go to school, church, or out of the house. She was not going to talk to anybody. Her mother, who was my patient and a good hypnotic subject, consulted me about her daughter's problem. The mother described how Barbara's behavior had been going on this way for two long weeks, that Barbara had been secluding herself in the home, not talking, and was most unresponsive. I told the mother I would make a house call, and that she was to go along with whatever I said. She was not to discuss the visit beforehand with her daughter.

When I arrived at the home, I took out my stethoscope and said to the mother, "I think that the first thing I ought to do is examine your chest. So will you please take off your blouse and bra, but call your daughter in here to act as a chaparone and have her bring a towel." The girl of course could not refuse to come in; she had to come in to act as a chaparone. That was the first thing that I got the girl to do for me. It seemed to be so innocent, so appropriate, so right, but I was getting a response from her. I carefully examined the mother's chest, all the while with Barbara standing there beside the bed in her bare feet, with a sullen look on her face. Finally I got up from where I had been sitting, stepped backward, and brought my heel forcefully down on Barbara's toes so that she let out a yell of pain. I turned to her, seemingly very irate, and said: "If you had only grown those damn feet big enough for a man to see, you wouldn't get them stepped on." *If you could grow those damn feet big enough for a man to see, they wouldn't get stepped*

*on.* Barbara looked at me, first in a frightened way, and then all of a sudden the smuggest smile I ever saw came over her face. She turned and walked out of the room. On the way out she said, "Mother, can I go to the show?" Barbara went to the show that day, she went to Sunday school the next day, and returned to school the next Monday. It was the end of her symptomatology.

What had I done? I had asked Barbara to respond. I also made her respond by stepping on her toes. I did it in a totally unexpected way. Then I took the idea that her feet were so big, that she was ashamed to be seen in public, and in a horribly impolite fashion I convinced her that I honestly felt that her feet were very small, and that she was remiss in not having grown them larger. Could I have ever told Barbara that her feet were of normal size, of a good size by just pointing it out to her, by measuring her feet, by showing her that she had feet no larger than her classmates? Barbara needed therapy, she needed to stop secluding herself. It was to get Barbara in some way from within herself to make response-behavior that would be corrective of her situation and her condition that I proceeded as I did. *Hypnosis is essentially that sort of concept, i.e., a way to offer stimuli of various kinds that will enable patients in response to those stimuli to utilize their own experiential learning.* I helped Barbara reorient to the size of her feet rather than to ideas about the size of her feet. Hypnosis facilitates exceedingly effective learnings that would be impossible otherwise except by prolonged effort and therapy.

## **HYPNOTIC ANAESTHESIA**

Let me give you another example. A little three-year-old girl had to have an adenoidectomy, and hypnosis was used. After the adenoids were taken out, the doctor said, "Now, you're such a nice little girl and that didn't hurt at all, did it?" The little girl looked at him and said, "Your pupil [stupid]. It did too hurt but I didn't mind it." I questioned this little girl about her hypnotic experience, as I have a number of other children. They do not all necessarily say that. Some say that they didn't feel anything at all. What took place? In some way that three-year-old girl altered her perception of pain and made it less meaningful for herself. She restructured it in some fashion just as the businessman with purely imaginary worries restructures those worries into a gastric ulcer. How does the businessman create this ulcer out of his body learnings, his experiential conditioning, etc.? The research approach in hypnosis ought to seek out the means by which hypnosis facilitates the utilization of body learnings, tissue learnings, physiological learnings. What were the learnings, understandings, and the body conditionings that the three-year-old girl had achieved that resulted in her statement, "I didn't mind it."

I think that cancer pain is a very severe pain experience. If you can get your patients' attention in some way so that they can be induced to use their learnings, you can abolish the pain. It doesn't matter whether you keep them awake, or keep them asleep, or keep them in a state of dual awareness. In some way you need to communicate to patients the desirability of doing something about their pain, just as the businessman does something about his worries and converts them into a painful ulcer with tissue destruction. Before I begin to induce hypnosis in cancer patients, I explain to them that pain isn't a simple, pure thing. There is hard pain, there is soft pain, burning pain, cold pain, stabbing,

cutting, heavy pain. I think of all the possible adjectives that I can to describe the pain so that my patient will listen to me. Then I point out to the patient, "You know, pain in some part of your body doesn't hurt you half as much as it does in another part of your body." I know from psychiatric practice that people can displace sensations. I also know that patients with cancer pain are worried about the metastases in their body, in their liver, in their spine. The pain that they have in their trunk is the thing that they know or believe is going to kill them, and they know that I know it. Thus sometimes I tell the cancer patient, "Suppose you had all that body pain right here in your left hand. You are not going to worry about that. It isn't going to hurt half as much as the pain in your body." I get them to "displace" a share of that pain into their hand. I don't know what the mechanism of displacement is, but I do know that human beings make use of that mechanism. I know that cancer patients can suddenly find that they have pain in their left hand which they don't mind, and the pain in their body is considerably decreased.

Is anaesthesia a state of unconsciousness? I don't know, but I don't think so. I think at times that anaesthesia is primarily a matter of amnesia. I know that I can teach a cancer patient, "It's all right for you to have pain, but why have pain for very long?" And why ever remember pain?" To one patient I explained, "You know, pain for you is made up of three things: anticipation of pain to come, memory of pain you have experienced, and the current experience of pain. Let's just not remember the past pain. Let's have an amnesia for past pain and for future pain." I call it "amnesia for future pain," an unawareness that pain can be anticipated. Then you have cut down the pain complex by one-third. Similarly you can shorten it by time distortion; by applying time distortion to the particular current pain, and reduce it greatly.

There is another mechanism that you can employ by hypnosis, and that is a reinterpretation of pain. The illustration I give to cancer patients is: Suppose you were alone in a house, 10 miles from any other habitation, and that you are absolutely alone. You are sitting with your back next to a curtain and you are reading a tremendously exciting suspense story. In that suspense story a hand came through the curtain and stabbed the victim in the neck. Just at that moment, as you read that line, a tiny little bug steps off your collar onto your neck, and as a result you hit the ceiling, not because that little bug tramped so hard on you but because of the general psychological situation. There had taken place a reinterpretation of the stimulus, a magnification and intensification of a minor stimulus." And so I ask my patients, "This short, cutting, stabbing, blinding pain of yours, could you make that into a dull, heavy pain?" In the hypnotic state subjects are open to ideas. *They like to examine ideas in terms of their memories, their learnings, their conditionings and all of the various experiential learnings of life.* They take your suggestion and translate that into their own body learnings. There was a cancer patient who had transformed the sharp stabbing, blinding pain into dull, heavy pain, and I then suggested that he take the dull, heavy pain and transform that into a feeling of relaxation and weakness. In other words his attention was redirected again, but this time into heaviness, weakness, and relaxation. I think that a great deal of research remains to be done on the matter of pain, on its transformations into nonpain or decreased pain situations, so that we can better offer suggestions and frames of reference which patients can utilize in terms of their own body experiences.

In the control of cancer pain I teach my patients to listen carefully to my words and to follow my train of suggestions closely. I can direct their attention to the shoes on their feet, the glasses on their face, the collar around their neck, and the way their hand is on their thigh, or to sounds outside the room, etc. As they follow my train of suggestions, it is not long before they forget about the shoes on their feet and the cloth around their neck, etc. In their effort to constantly redirect their attention from one idea to another, there is a more rapid slipping away of earlier suggestions. I explain to the cancer patient: "While you're thinking about this or that particular happy thing, you won't have enough energy left over with which to feel the pain of your cancer, because all of your energy is going to go into this matter of thinking over all the nice things that you ought to say to your wife, your grandchildren, or something of that sort." I get their attention focused.

What does focusing of attention mean? I know that you can get certain types of physical behavior and certain types of psychological behavior after you have induced the hypnotic state, *which is a state of special awareness and special responsiveness*. Cancer patients have much activity going on within them. But you know that they also have a lifetime of body learnings that are available within them for therapeutic application.

## **CATALEPSY**

Then there is the phenomenon of catalepsy which also occurs within the patient. Did you ever try to hold yourself completely still in the ordinary state of conscious awareness? Soon your nose, your ear, or some other part of you begins to itch, especially if you know that you should not move. The urge to move becomes stronger and stronger and more and more fatiguing. How can the hypnotic subject maintain a state of rigidity with utter comfort and satisfaction and ease? The catatonic can do it. I have posed a catatonic patient against a wall with lights to outline his shadow, and drawn the outline of his shadow on the wall even though he was standing on one foot, with one arm out in one direction and the other arm in another, his head bent. That was 8 A.M. in the morning. At 12 noon I had someone else go out and outline the shadow; at 4:00 P.M. a third person went out to pencil mark around the shadow. There was practically no shift from the hour of 8 A.M. until 4 in the afternoon. How could he do it? Certainly there are significant differences between the catatonic patient and the normal person in the appreciation of fatigue. I have posed a cataleptic hypnotic subject, but of course have not presumed to do it for as long as a patient for many reasons, not the least of which is that I like to have my subjects remain my friends. I have posed them for an hour without any particular distress. I believe catalepsy is a phenomenon that is at the frontiers of our understanding of body learning. We ought to experiment with, test, and examine what constitutes it. I can recognize it in the way that I can recognize a number of other hypnotic phenomena, but I do not know what it is.

## **RAPPORT AND DISSOCIATION**

Let us now consider the phenomenon of rapport. An obstetrical patient comes into the delivery ward: She hears her physician, she hears the nursing personnel, but she doesn't

hear the screams of other women in labor. She doesn't even know that there are other women in labor. I hadn't specifically told her that either. There has occurred a redirection of her attention, and we say that she is in rapport with, and is responding to, only a certain number of persons, events, and things. What is this narrowing of the field of awareness, the narrowing and shrinking of the field of consciousness? Can you deliberately shrink the field of conscious awareness so that it excludes the pain of an injured foot, the pain of a badly burned foot? One way anaesthesia can be developed in a case with burned feet is to ask patients to forget their feet and then lose their sense of body continuity. I have inflicted painful stimuli upon a foot after such a thought had been accepted without the subjects reporting stress, because they had forgotten their feet. Why shouldn't they feel the painful stimuli on their feet, even though they had forgotten their feet? They were naive subjects and they didn't know that I was going to pinch their feet or inflict pain or distress on them, but they had forgotten their feet. What does that actually mean? What is an amnesia? What is dissociation?

My daughter had said that under no circumstances would she ever, ever, permit anaesthesia. I know my daughter's interest in hypnosis and her interest in psychology, but she was only a grade-school child at the time. I had promised her that I would not offer her any suggestions regarding anaesthesia. Once, in a medical setting where I was demonstrating hypnosis, I asked my daughter to see herself sitting "over there" on the other side of the room. She was very interested in hallucinating herself "over there." Then I asked her to feel herself on the other side of the room, really to feel herself sitting there, to experience herself sitting over there. Then one of the doctors, over to one side, came up and pinched her very thoroughly, tested her for pain. He was very certain that my daughter, experiencing herself "over there," did not show any pain reactions. The dissociation, the hallucination of herself "over there," was quite complete. How could she be pinched "over here" when she was "over there"? How could she feel pain "over here" when she was "over there." We have the analog of this experience in another type of behavior. I haven't been able to recall the names of my psychology friends of many years past because I am no so busy in psychiatry and hypnosis. I had a delightful ride from Kansas City last night. My driver was working for his doctorate degree in psychology. After talking with him for a while, I began to call to mind name after name of psychologists that I had known back in 1929 and 1930, with vivid recollection. Why? I had never met this graduate student who was driving me before that evening, but he was a psychologist, and I knew that he was studying for his doctorate degree. It was a relaxed, friendly social situation in which conversation came easily. It brought back to me memories of a time when I was much closer to his present age. There was an awareness on my part that I was going to address a meeting where there would be many psychologists in attendance. These many factors provided a setting which facilitated the coming forth of all those forgotten memories. This was not hypnosis. However, if I wanted somebody to call forth memories of past events, past experiences, and past learning, I know that I could suggest to him that he be back in Worcester State Hospital talking to Dave Shakow or Paul Huston or somebody like that, and that he could begin to recall the names of the patients who had been on the ward when he had been there, and we would find a similar facilitation of recall.

My daughter “over there” could associate to the feelings that she would have “over there.” She wouldn’t have any feelings “over here.” I later let her find out about anaesthesia. She said that she was very interested in this because she did not think that it was right for someone to suggest to another person, “Now, you can’t feel anything.” That was the first time I really understood why she objected to anaesthesia, even though she was quite willing to learn many other possible hypnotic responses.

It is difficult to tell somebody who is sitting in a chair in the middle of a room, “Now just feel yourself to be sitting in a chair behind me.” No one can really do that in the waking state. In hypnosis, however, individuals are more open to ideas, and they more readily consent to examine them. If I were sitting in a chair behind the speaker, I would be facing in the opposite direction from that in which I am facing now. What would I see? I would be seeing an audience. The individual would permit himself to build up association by association until his thoughts would become more and more filled with an understanding of what an audience looks like, how it behaves. Soon it would become more and more possible to construct with these memories a feeling and image of yourself sitting in a chair behind someone and seeing that someone’s back and then sitting in that chair. The individual would be able to take all of those past learnings and fit them together, and then he would feel himself in the chair behind me, looking at the audience.

In the ordinary state of conscious awareness, however, we are constantly orienting ourselves to the concrete reality around us. We do this as a matter of biological preservation. None of you would forget that there are people to the right and to the left of you, behind you and in front of you, in this audience. You remain well aware of these facts, and from moment to moment you reinforce this orientation to reality. In the hypnotic state subjects take one look at the hypnotic situation and they have established their orientation. They do not need to keep returning, verifying and reverifying their reality situation. They know the situation, and they are aware that, should any change in that reality orientation occur, they would be able to make the modifications. Thus they are perfectly willing to make these adaptations when the occasion arises, but they do not have to keep verifying that they are in this particular room, that there are lights in the ceiling, etc.

## **HYPNOTIC AMNESIA**

What is hypnotic amnesia? I know that there are amnesias which occur in hypnosis. I also know that every hypnotic phenomenon can be found in everyday life, but only in a minor and disconnected way, and only at certain times. My favorite way of inducing amnesia is by a rather simple technique. When the patient with whom I know I am going to use an amnesia comes into my office I may say: “You know, it was very pleasant driving to the office. Today is such a nice day in Phoenix. Where there many cars on North Central Avenue?” Perfectly casual conversation. The patient answers, and then, in response to a posthypnotic cue she develops a trance, and we proceed with the therapeutic work. However, on this occasion I want her to have an amnesia, so when she awakens I say, “How was the traffic on the corner of Camelback and North Central?” I’m right back into the conversation that preceded the therapeutic interview. I have thus

reestablished and made dominant the trend of thought that I preceded the therapy. In other words I have gone clear around and back to the beginning of the interview, until the patient walks out of the office, thinking about the traffic and the nice day in Phoenix and the number of cars on Camelback and North Central roads, and proceeds about her business with a total amnesia of the therapeutic work. Why shouldn't she have a total amnesia? By a simple asking of questions, casual thoughts have been used to emphasize a train of thought, a train of association in her mind, to bypass the conscious memories of the therapeutic interview.

A patient comes to you about a migraine headache. You sense that the patient is going to be very resistant about hypnosis and about therapy in general. You inquire sympathetically about the migraine headache. In one such interview I learned that there was a history of right-sided migraine headaches that had been going on for 11 years—always right-sided migraine headaches. I asked, "Is the headache present at this moment?" The patient said that it was. Then I asked, in absolute earnestness, "Will you please describe—you say it's an 11-year-old migraine headache—will you please describe . . . you did say 11 years, will you please describe the exact sensation you have right there," and I pointed to a place at the left side of her head. The patient wondered what I meant and why I pointed to this specific spot. As she tried to answer that question, I interposed, "Will you compare it with the same feeling on this side, and do you notice that you're beginning to have a pain over there similar to this one?" The patient began to examine that, for she had had plenty of experience with pain. Pain is something that you experience, pain is something that you remember, pain is something that you learn, and you can have it in all parts of your body. Pain is a learned experience. I just asked her to learn about pain "right there."

She accepted that idea and started to examine this area for pain, and she discovered pain. *I call this a hypnotic technique. I have offered a suggestion, and the subject accepted it.* She then made use of memories of pain and learnings about pain, and when I suggested to her that the pain was growing, the patient. I discovered that the pain was growing, and suddenly she had a left-sided migraine headache. What happened to the right-sided migraine headache? I had not asked it to disappear; I had not offered any therapeutic suggestion. On the contrary, I offered the suggestion that she have a left-sided migraine headache all at once, and she obliged me. However, she relinquished the right-sided headache. Now, if I can give her a left-sided headache, then I ought to be able to take it away. She has had 11 years of right-sided migraine headaches only, and suddenly she lost that for a left-sided migraine. It should be much easier to deal with a migraine of such recent occurrence acquired under these particular circumstances.

*Hypnosis is a state of awareness in which you offer communication with understandings and ideas to a patient and then you let them use those ideas and understandings in accord with their own unique repertory of body learnings, their physiological learnings.* Once you get them started, they can then proceed to utilize a wealth of other experiences. I do not know how that patient got rid of a migraine headache that she had on the right side repeatedly over a period of 11 years, but she did lose it right there in the office. She proceeded to develop a left-sided migraine headache, which I was able to hypnotically

suggest away. The left-sided migraine, as the right-sided one, was willingly given up by some utilization of body learnings. I don't know what they were. I don't know if she dissociated from her headache, or whether she just displaced the headache, or reinterpreted the headache, or just forgot the headache, or whether she suppressed the pain impulse that gave her a perception of headache. I know only that I presented ideas intended to stimulate the patient to behave in accord with actual body learnings over a long period of time.

### ***ISOLATION (DISSOCIATION)***

What are the implications of the hypnotic experiences which I call "isolation phenomena"? For example, instructing a patient to forget his foot, and then painfully stimulating the foot without disturbance to the patient. I use an isolation technique with highly resistant subjects who generally want to go into a trance. I tell a patient, "You know, in hypnosis you can really be so objective that you can look upon yourself, think about yourself in a nonsubjective fashion, with tremendous objectivity. Now take your hand, look at it, it's a nice hand. I wonder whose it is? That is an interesting hand, I wonder whose it is? Is that little finger going to move?" You and your patient look at that hand, and there is no sense of ownership, no sense of personal identity with that hand. You have just isolated it in an objective fashion. You're both looking at that hand. Not so long ago, when I was doing that with a patient, I reached over and squeezed on the phalanx in order to get joint pain. My subject watched what I did and said, "You know, that ought to hurt that hand." I have personally experienced polio, and I know something about the things that can happen to a person who has had polio. You can forget your body, you can lose your awareness of the various parts of your body. You can lose it to such an extent that you have to open your eyes to see if you are looking at the sheet or looking at the ceiling, because you really don't know whether you are lying on your back or on your stomach. You don't know where your feet are. You remember that you have feet, you remember that you have hands, but you don't remember what the feelings are like when your hands are closed and when they are open.

With subjects in an hypnotic trance you can bring about an isolation of the hand so that they can regard that hand as someone else's. You can cover up the hand and you can manipulate it. These subjects are very surprised when they find that the hand position is changed, because they didn't see it change its position. They didn't feel it change its position, nor do they feel pain. I have discovered that in working with polio patients who have forgotten physical movements you can do a great deal for them by asking them to remember their kinesthetic memories. I explain that word "kinesthetic" to the child and to the young adult so that they understand it. I tell them that if they can remember the taste of something and if they can remember the smell of something, then they can remember the feel of a movement. Thus with some of those patients who still have muscles, even though these muscles are inadequate, incompetent to use, you can get them to remember kinesthetic memories and kinesthetic images, so that they actually do it. In hand levitation, for example, sometimes your subjects will respond to you very adequately when told to lift their hand higher and higher, and the hand is lifting, is lifting, lifting. At other times when you say, "Your right hand is lifting way up in the air," you sit there and

you watch that hand remaining exactly where it was. Finally you tell these patients, "Take your left hand and put it on top of your right hand." They put it on top of their right hand, and because they have substituted an actual arm movement for kinesthetic memories, the right arm begins to lift. Joint sensation and kinesthetic memories are as valid as any other kinds of memories. You can substitute them and modify them. I think there is need for a great deal of research on the characteristics of these different types of learnings and memories, the conditions for change, and the way in which they undergo spontaneous alterations during life.

## **REGRESSION**

How valid is regression as a phenomenon? How far can you regress? I recall a paper that was submitted to me as editor of *The American Journal of Clinical Hypnosis* in which a doctor used regression with a nine-year-old boy suffering from overwhelming acrophobia. He couldn't ride in a car in a high place, on a hill, or a mountain. He would cower on the floor of the car and sob. It was an agonizing experience for him to go to any high place. The physician regressed this nine-year-old boy and explained very carefully that he could go "way back" until the very beginning of his fear of high places. The doctor wrote that he did not know how far back the boy was going to go, so he told him, "And take your voice along with you, your nine-year-old voice with you, so that you can tell me." The patient said, "I am three months old and I am riding in a plane." (This was done in the presence of the mother.) "I am awful scared being way up high here." The mother shook her head vigorously in denial: "That's all wrong, all wrong." The boy came out of the trance state and showed no signs of fear. He seemed perfectly willing to go look out of a window which he had previously shunned, and to look down and things of that sort. The mother took the doctor aside and said, "He didn't go in a plane, he's never been in a plane."

It was a week or so later that the mother returned anxiously to the doctor's office and said, "You know, I'm completely mistaken about that. I took him on a trip just that once when he was three months old. I checked with my husband. He did ride in a plane at that time. I didn't want to take him, but I had to take him," showing some of her own reasons for forgetting the incident. How do you take the boy's voice and nine-year-old vocabulary back with him when he is regressed to the age of three months? How do you recover a memory of that sort, when the mother had forgotten it and the father had almost forgotten about it? How did that three-month-old infant know that he was three months old, and how did the nine-year-old boy take back with him a voice that could identify the age of that baby? Perhaps to the unconscious mind the primary problem is the intrinsic meaning of the idea or the communication which has been received, and then use is made of such capabilities and potentialities as are available to respond to and interpret this communication. I think age regression—whether partial, selective, or whatever aspect you focus on—can be investigated.

I know that everyone is capable of having perfectly wonderful dreams. I personally enjoy dreaming about things when I was a boy at home on the farm, about how nice it was in the early spring to feel the bare ground on your bare feet. Now and then I can have a very

pleasing dream experience that enables me to answer a lot of questions or to give some understanding to my patients or to my little children about what farm life was really like, particularly my children. Sometimes it opens up for me the possibility of empathizing with my patients in terms of feelings, thoughts, memories, relating to their age by a dream memory, a dream revivification or perhaps a dream regression. How much of regression is revivification and how much of revivification is regression I am not able to answer at this time.

In summary, I earnestly believe that the different kinds of behavior that you can elicit in the trance state are at least as worthy of investigation as are the learning and the forgetting of nonsense syllables, the recognition of negative afterimages, and similar samplings of behavior which have been considered valuable for the exploration of the principles of human behavior. I do not think that hypnosis should be or can be investigated as a total phenomenon (whatever is implied by that global term). I think that hypnosis can best be investigated by a careful searching of the great varieties of human behavior which can be modified or changed or influenced by the hypnotic state.

Learning, forgetting, sleeping, dreaming are but a few of the areas in which research on hypnosis needs to be done. I think research should focus on the various manifestations of hypnosis rather than a total hypnotic state. As for research on hypnotic techniques, one should never forget that these are only a means of attracting the subject's attention, and we should not lose sight of the purpose of these techniques because of fascination with the variations which can be employed.

## **DISCUSSION**

*Dr. Henry Guze:* Many years ago a paper by Dr. Erickson dealt with the post-hypnotic state. In view of what he said about hypnosis in his presentation, I would appreciate some clarification on what he considers to be the posthypnotic state.

Suppose he has treated a patient for pain in the manner that he has described. Does this patient go away and return to a posthypnotic trance to relieve pain at a later date? Is this another hypnotic state? If the pain is not experienced, are we to assume that the pain is not responded to? Is this patient constantly living in something of an hallucinatory state? The patient has perhaps put his body on the other side of the room, indulging in behavior which might, under a little pressure, be regarded as topological.

Dr. Erickson has stressed the verbal aspects in introducing ideas, concepts, attitudes, particularly that kind of attitude or idea, as it might be called, which creates a kind of refocusing of concentration of a certain kind. What about the patients who cannot speak? Can we hypnotize a deaf mute? Can we make a person who cannot speak go into a so-called hypnotic trance? I have been very interested in the problem of nonverbal communication. I would add, also, that I have maintained for some time the conviction that there is a continuity in terms of hypnotic phenomena phylogenetic ally from the lower animals up to man. If there are such things as hypnotic phenomena, it is quite reasonable that there should be such a continuity. Investigation of what we might call

comparative hypnosis might reveal that many behaviors of other animal forms might be explained on the basis of an hypnotic like state.

What is the relationship, if any, in terms of continuity? It is difficult for me to conceive that animals, if they do go into a hypnotic state, are able to go off into the realm of hallucinatory experience or imagery, which seems to be a basic constituent of hypnosis stressed in the presentation of Dr. Erickson. Finally, to what extent do you consider the hypnotic state and the psychotic state to be psychodynamically similar, related, or identical? Your emphasis on hallucinatory experiences, dissociation, and the like make me wonder about your thinking on this issue.

*Dr. M. Erickson:* Let me deal first with the matter as to whether the hypnotic state is similar or identical to the psychotic state. I think that hypnotic behavior is a normal, controlled, directed behavior useful to the individual. On the basis of my knowledge of psychiatry, psychotic behavior is disturbed, uncontrolled, and misdirected behavior which the individual has limited ability to change, modify, or understand. It is in some ways a misuse of a capacity to behave. A pansy in a tomato bed is a weed, just as a tomato in a pansy bed is a weed. A tomato in a tomato patch is a very desirable thing, as is a pansy in a pansy bed. In psychosis there is the wrong behavior, in the wrong place, usually at the wrong time. In hypnosis you have the right behavior, in the right place, doing the right thing, at the right time.

Now about this matter of the hallucinatory state of hypnosis. I do not like this formulation, unless Dr. Guze is ready to describe all memories as manifestations of hallucinations. I wonder how many of you ever had chilblains and then forgot about them for years and years. Then circumstances bring you back to Wisconsin in mid-winter and you are suddenly amazed to discover that even without getting cold, you've got a very good tissue memory of chilblains. Or is it tissue memory? I don't know exactly what it is. But your feet do itch frightfully. Why? You study it for a while, you're amused by it, and then you forget about it.

In my experience I have known people who never went into hypnosis, but who went to a movie because they had a severe headache, forgot their headache during the course of an interesting movie which had involved them, and perhaps didn't remember the headache until the next day. I don't know where the headache went in the movie situation, but I do know that they lost it sometime during the viewing of that movie, and that they did not necessarily have to have another headache to make up for it. I don't know what becomes of that headache that gets lost in the middle of a suspense movie, or a toothache that disappears on the way to the dentist, but it does disappear. There are many such things that disappear and are not accounted for.

In carrying out a posthypnotic act there is most likely a revival of the original trance, perhaps for a moment, perhaps for longer. It then passes on, just as you can have thoughts come into your mind that tense your muscles or alter your blood pressure, your blood circulation, and then the thought is succeeded by other thoughts with or without other physiological alterations throughout one's body. It's been a passing experience. The

thought may have brought about an unpleasant memory, recalled an unpleasant set to the muscles, but then these disappear and may remain away indefinitely. There is no basis for considering that the original trance has to continue indefinitely for the posthypnotic suggestion to remain effective.

Can you hypnotize a deaf mute? That question came up in Caracas, at the maternity hospital in Venezuela. I was there lecturing to the staff, and one of the psychologists was very interested about the application of hypnosis. He found out that my Spanish vocabulary was limited to a fluent use of *si*, *manana*, and *hasta la vista*. They asked me if I could induce hypnosis in someone who could not speak English. I felt that was not only feasible, but also not too difficult. One of the physicians went into the maternity ward and spoke to one of the patients. He told her that, "The North American doctor is interested in obstetrics and is interested in you." This was all that was told to her.

The woman came in, sat down, and looked me over. I looked her over. After a few moments I reached over, took hold of her hand, and elevated it up in the air. I looked at it there, then let loose of her hand. I looked at my hand, pinched the back of my hand, and grimaced. Then I pinched the back of her hand, and she grimaced. I pinched hers hard enough that she was justified in grimacing. Then I lifted my hand, stroked the back of it, and smiled and looked happy. I pinched the back of my hand and looked happy and as surprised as I knew how. She looked at me with a puzzled look on her face. I took her hand, brushed it, and gave the happiest look that I could give her, then pinched the back of her hand again. She looked very surprised, and said in Spanish, "It doesn't hurt." Communication can be verbal, but it is also quite obvious that there is a great deal of nonverbal communication. Communication can be an angry look, a lovely look—all kinds of looks and all kinds of gestures.

Dr. Fritz Heider mayor may not recall a conversation which I had with him many years ago about how deaf mutes swear in sign language. It is a very charming sign language, beautiful swearing, and it is meaningful, too. I think that you can hypnotize a deaf mute. I have asked blind people, blind from birth, to go into a trance and to hallucinate visually. The ideas which they have of what eyesight is, and how one would employ visual memory, are quite interesting and tend to be a composite of description of tactful, pressure, and kinesthetic memories.

*Dr. Roy Dorcus:* Dr. Erickson is a master of his art and he has given us a wonderful description of how he therapeutically creates in the individual the things that he wishes to bring about with respect to changes in behavior that the individual needs. I don't think that his discussion was primarily oriented to how these matters are related to the induction process, or really as to what hypnosis, itself was.

He raised the question about catalepsy, how far this could be extended. I might indicate that in one instance we kept an individual in a cataleptic position for approximately 13 weeks. This was done for surgical purposes. The individual maintained this position, of course, during sleep. It was necessary because of a skin transplant, in which the transplant was made from the abdomen to the wrist and then from the wrist to the jaw.

There were some real counter indications against placing the arm in a plaster cast for this length of time. It was not necessary to use this method because of the effectiveness of the hypnotic catalepsy. I do have a question with regard to Dr. Erickson's report of the case of a child with fears of height. I believe that this is closely related to another report presented to this Institute about the young woman who needed dental work. Even though the recalled memory made possible therapeutic management of the dental situation, there was found to be complete fabrication with regard to causality of the so-called memory of the traumatic situation. I have some serious doubts about this physician's report about the three-month-old child as to how this three-month-old child would know whether he was up in an airplane or on the ground and whether, by having the child report that he went back to this traumatic experience, that we are justified in concluding that this "recalled memory" was related to the particular problem which was being experienced. This is not to question whether the nine-year-old did not experience therapeutic relief, but it is my impression that it is very likely that you have had some projections and possibly some fabrication in this particular situation.

I can also affirm that it is possible to hypnotize deaf mutes. I had a patient referred for a particular reason. She happened to be a Czechoslovak who couldn't speak English, but the woman could read sign language from her daughter. I made one very foolish mistake in working with this woman because I started out with a visual technique, transmitting the signs through the daughter who could speak with her mother. I could not speak with her. I got her eyes closed and, of course, lost communication with her. At that point I had to take a hold of her eyelids and open them up until we could give her some signals again, and go back and start over.

I am in basic agreement with Dr. Erickson with regard to his general tenet—that is, the less stress and strain put on the subject (or patient) with regard to projecting himself into situations in which you wish to bring about some changes of behavior, (the better). If you can specify the situations for your patients, if you know something about their own background, then it is much easier to bring about the changes in behavior. If you happen to use some situation that is unfavorable for them—for example, in the situation where you might ask an individual to project himself into a very relaxed situation on the beach, you will find that occasionally you run into an individual who, because of sensitivity to sunlight, won't tolerate this sort of a projection. So if you either allow them to select the situation that is going to be appropriate for them, or if you can suggest one that is appropriate for them, the chances of getting the behavior one desires are greatly multiplied.

*Dr. T. Sarbin:* I would like to accent Dr. Dorcus' doubts about the case of the person reporting a memory of being in an airplane at the age of three months. This is so reminiscent of the Bridey Murphy phenomenon which, as you all remember, created such a stir a few years ago. It is the sort of thing that is very easy to induce in most subjects. In fact it is not difficult to have a hypnotized person report an experience during fetal life. We have to be very skeptical in accepting such reports as valid, even though such reports may be very important in therapeutic analysis.

I am very much interested and I approve heartily of Dr. Erickson's beginning analysis of hypnosis as an attention phenomenon, and some of his illustrations would seem to indicate that hypnosis is a matter of redeploying attention from one stimulus object to another. Redeployment of attention is a concept that is employed to account for changes in behavior in other social psychological situations than hypnosis, e.g., faith healing, conversion reactions, pain-free birth, etc. But when Dr. Erickson moves from attention concepts into a definition of hypnosis as behavior *within the person* that has to do with an altered state of awareness, then I have some questions.

Awareness is a term that is in common parlance. But when we introduce a definition of one unknown, e.g., "hypnosis," we don't want to use a word the referents for which are also unknown, or a word that has multiple referents. Ordinarily when you ask a patient, "What is awareness?" the subject uses the word "conscious" or its opposite, "unconscious." About 1941 Dr. James G. Miller wrote logical analysis of the multiple meanings attached to the word "consciousness." His study yielded, I believe, 17 major meanings and a number of subsidiary meanings. The same analysis could be applied to the term "awareness." Changes in "awareness," or changes of some kind that have to do with inner dynamics, as it were, are something that can only be inferred *from conduct*. The therapist, the hypnotist, and the analyst are limited to observations of conduct, to things that the patient says or does. They are free, of course, to take the sayings or doings and reconstruct them in any way that they wish. If we go back to the 18th century, we find that the sayings or doings were interpreted as a mysterious force, as animal magnetism. In the mid-19th century, the sayings or doings of the patient which came about as the result of hypnotic induction procedures were interpreted as disorders of the central nervous system. More recently these sayings and doings have been interpreted as learning phenomena. The ultimate test of what usefulness our inferences have about the behaviors that we call hypnosis can only be realized through observation and experiment.

Dr. Erickson was generous in his comment that such things as the analysis of the learning and forgetting of nonsense syllables have a place, but it seems to me that there was hidden in these remarks a criticism of such kinds of research, that this type of research would not really get us into the inner life of the person, which is the core of hypnosis.

Dr. Erickson's report presented us with a number of clinical anecdotes. The techniques that he uses in his clinical practice are imaginative, original, and I'm sure influence the patient in the direction of removal of symptoms, perhaps toward a change in character structure, or whatever the goals of the therapeutic endeavor are. But we must always bear in mind that individuals change their conduct in a number of settings. The settings certainly can be analyzed the same way that hypnotic influence can be analyzed. Dr. Watkins made the point in his report that we have to analyze variations contributed by the therapist, by the subject, by the interaction, etc. The procedures that we use in basic experimental I design are no different. Whenever controlled experimentation has been done, I invariably we find that the kinds of change, the kinds of influence that are produced under hypnotic conditions, can also be produced under nonhypnotic conditions.

My theme is that we are not moving forward if we look upon hypnosis as some kind of force or process that goes on exclusively within the individual, a force or process that demands explanatory concepts that are different from explanatory concepts that we use for the analysis of everyday behavior. In this respect I would urge the next generation of scientists to focus on the special social relations between hypnotist and client that influence action.

*Dr. M. Erickson:* When that three-month-old baby was taken to see a pediatrician, he did not know that the adult was a pediatrician. The baby did not even have a concept of a medical office, but that three-month-old baby was able to, and did, receive certain sensory impressions, visual impressions of whiteness, visual impressions of the pediatrician's shape and manner, as well as the cutaneous sensory impression of the hypodermic needle. Three months later, six months later, when the baby was taken back to the pediatrician's office, he was still unable to identify the pediatrician by name, or give the color of white, or recognize the hypodermic needle, but he was able to, and did, show a conditioned response of fear, anxiety, and distress. He can keep right on with that learning. I think the boy did have a plane ride at the age of three months, that perhaps, as he was carried up the ramp into the plane, he had the visual impression of a distance which was disturbing, and only later on put a name to this experience. I mentioned that he took the nine-year-old voice along with him in that regression, which meant that he took his nine-year-old understanding of height. He named the plane. I don't know where he got the memory of the plane, but it was verified that he had a plane ride. Most people have had the experience of seeing a strange, unfamiliar object and wondered and wondered what it was. And then one, two, or more years later it will suddenly dawn on them what it was that they had seen and didn't recognize at the time.

I would like to respond to Dr. Sarbin's comments about an altered state of awareness. If I wanted Dr. Sarbin to say a large number of very pleasant things, I think I would introduce him into a setting where there was soft music and flowers and sufficient other attractions which would induce in him the desire to say a number of nice soft words. However, if I introduced him into a situation where I was tormenting a dog, I expect I could induce him to say a great many unpleasant things. You alter a person's state of awareness by the conditions associated with, and the character of, the stimulation which you offer along with the inner behavior of potentials in that person. I do not think that I am in error to give the general term "state of awareness" to the memories, ideas, and emotions characterizing a person at a given time, nor do I consider this a "mystical appellation." I also do not feel that it is mocking the learning and forgetting experiments using nonsense syllables to say that just-as-serious scientific attention should be given to the study of hypnotic learning, hypnotic forgetting, and other hypnotic manifestations.

*Dr. T. X. Barber:* I was impressed with Dr. Erickson's statements concerning the technique of hypnosis. He said that it consists basically in asking the subject to pay attention. I can generally agree with this, and I believe most of the other people on the panel would also generally agree with it. Of course the problem remains, what do we mean by attention? In a general way this is probably the essential element of the hypnotic

induction. Dr. Erickson emphasized this many times, but then shifted over into something different.

It seemed to me that half of Dr. Erickson's presentation was from the position of a natural scientist, psychologist, and psychiatrist trying to understand what hypnosis is; the other half of the time the presentation seemed to be from the position of someone of many years ago who really thought hypnosis was a mysterious, magical thing.

Dr. Erickson's main point seemed to be that what we're doing is trying to get the patient to use previous learnings. He put this in various ways, but always saying the same thing—experiential learning, bodily learning, conditioning processes. It was my impression that he was affirming that we have learned many things in our life, most likely due to some kind of conditioning process. The learning is present; the problem is, how are we going to bring it out? We do that by hypnosis: First we get the subject's attention, then (according to Dr. Erickson) the subject goes into a trance, and when he is in a trance, magic-like things happen. It is implied that a kind of mysterious thing happens because of trance. An example was a case of amnesia that Dr. Erickson presented. Before therapy began the therapist was talking about the traffic on the street; then, immediately after termination of the hypnotic therapy session, the therapist begins talking once more about the traffic on the street, and supposedly because the patient had been in trance, she immediately had an amnesia for all that went on during the "trance." She didn't remember anything else, supposedly because the therapist had reoriented her and he was again speaking to her in the same way he spoke to her originally (before the hypnotic induction). Why does the patient have the amnesia? The answer given by Dr. Erickson was that she was in a trance and the therapist reoriented her thought processes.

Let's ask a simple question: How do we get a person not to remember what has occurred during trance by simply talking to her again about what we were talking about before trance? The answer, as I believe Dr. Erickson said, was "I don't know." I would also say, "I don't know," but I would also say that it is not simply because we have indirectly given her a suggestion for amnesia. This is not magic nor are we back in the 18th century.

There is something more in this, and this is what I believe is happening. In all the studies of hypnotic amnesia that I have done, I have always found that the subject *in some very purposive, deliberate way* wants to do what I tell him. He wants to comply. This might be on an unconscious level, if you want to use that term. This is quite obvious, and we can pick it out all the time. If he is not a good, motivated, hypnotic subject, then he is not going to show amnesia.

Suppose we tell the subject, "You won't remember something," or perhaps we suggest amnesia in another way. For instance, we may start talking about something that was occurring before the hypnotic induction and thus give the subject the indirect suggestion that he should not remember. What happens then? Suppose he says, "I don't remember what occurred," which shows amnesia. Then we ask him, "Why don't you remember?" What will the subject say? I wonder if Dr. Erickson has ever questioned the subjects. It appeared that Dr. Erickson just took the amnesia for granted. He starts talking about the

traffic again, and the subject “doesn’t remember.” Did Dr. Erickson ask her, “Why don’t you remember—what’s happened?”

Every time I have asked my subjects that, they all say something like this, and I’ll try to quote them: “I don’t remember because. . . well, I can’t.” “Why can’t you?” “There is a block there.” But if you really get around it another way and have somebody else question the subject, the answer comes out, something like this: “I don’t remember even though I know I can remember ... but I can’t let myself remember. I could remember if I tried ... but I won’t try.” Why is the subject not remembering? The subject is not remembering because in some way he is *not letting* himself verbalize what occurred; he is not letting himself remember. What does that mean? What he is doing is something like the following: “I will think about certain things, but I will not let myself think about certain other things.” A good hypnotic subject, when he gets his cue that he is not to remember, will not let himself verbalize these things to himself. They are there, he can remember all right. All that he has to do is just let himself verbalize, but he doesn’t let himself do it. Amnesia takes purpose, effort, striving; it is a deliberate kind of thing. It is not something that just happens magically just by giving the stimulus. I am bothered by Dr. Erickson’s formulations because I get the impression that there is magic being attributed here that does not promote scientific understanding or investigation.

Let me cite a second example. Dr. Erickson reported about an age regression back to three months. Both Dr. Sarbin and Dr. Dorcus commented on this. This might very well be. Nobody can absolutely say that we cannot remember or that it is impossible to remember what occurred at three months of age. It might be possible even though I don’t think that it is at all probable. That, however, is not the question here. The question is that a subject was reporting this, and the report was taken so uncritically and so readily accepted without asking a whole series of questions. First of all let us suppose this boy actually took the plane ride at three months of age. How do we know that this was not discussed at some later time, that it didn’t come up in some way later? How do we know that at four, six, or more years of age the subject did not hear that at three months old he took this plane ride. Dr. Erickson did not report if these questions were asked. He seemed so ready to accept this report at face value that he gave the impression that there was magic at work. There is the connotation of a real mystery here that I just cannot accept. The evidence from psychoanalysis has been critically reviewed so that we have reasonable doubt about the historical accuracy of reported memories.

I believe that Dr. Erickson was on the right track when he was talking in terms of attention. This is a word that we can use, although it is quite hazy. I believe that he was on the right track when he was talking about conditioning, learning, and how we have learned many more things than we utilize. But I believe he goes off in some way when he is ready to uncritically accept evidence about age regression.

It was said that a hypnotic subject was made cataleptic. All that means is that the subject kept his body rigid and he sat there for one hour. Should we do research on this? The implication was that this was an amazing phenomenon. Motivate a person, or pay him some money; pay him enough to sit there for an hour. If he is motivated, he will do it.

That is all the research we need to do on that. It is not amazing or mysterious if somebody can sit still for an hour. The only research we need to do on "catalepsy" is to show that it can readily be duplicated by a motivated person, and hypnotic subjects are usually very motivated.

*Dr. M. Erickson:* I believe that the hypnotic subject can do in a trance state the same sort of things he can do in the waking state. I might introduce someone to a dozen other people. At the end of that time, by virtue of having directed this person's attention first to Mr. Jones then to Mr. Green, to Mr. Brown, etc., and after I had finished the 15th or 16th introduction, I could ask him, "Tell me, what was the name of the first man, the second man, the third, the fourth, the fifth?" We would readily appreciate how rapidly a person can forget something, especially when his attention is constantly redirected. There would be no problem to prove that this person had really forgotten the names. Even when we have people who are strongly motivated to remember the names which have just been presented to them, we find that they forget easily. I don't think that this forgetting is a function of mesmerism or magic. I think it is ordinary normal behavior.

I believe that the hypnotic subject can, in the trance state, do something besides please Dr. Barber. I think he can use his own behavior for his own purposes, and do it in his own way. He doesn't lose his capacity to behave to please himself. I think he can also do things to please Dr. Barber as well as do things to displease Dr. Barber.

As for this Bridey Murphy mystical thing, I said that I think you can condition a three-month-old baby and that you can condition him in various sensory modalities. Later an interpretation can be placed upon that conditioned response. I also said that the boy took his nine-year-old voice into the situation with him. Is that magic? I don't know what else was taken along, but I looked upon it as a partial regression, and I don't think that this was a matter of gullibility. All we know is that these were the things done and that certain therapeutic results were obtained. I think that the therapeutic result was a valid occurrence, a valid experience for the boy. What is the explanation? Let us not call the explanation Bridey Murphy. Let's not call it any names at all. It is more productive scientifically to wonder what the processes are that constituted that experience. I fully recognize that you and I cannot apply the most useful concepts nor give the right terms as yet. We haven't examined the items of behavior most meaningfully, perhaps not defined these items of behavior in the most useful language.

*Dr. Andre Weitzenhoffer:* I feel that I must concur with the previous discussant and express my doubts as to the likelihood of a three-month-old child being capable of a conception of distance which the reported paper seems to have implied. Even if the infant had a conception of distance, I would question how he would come to fear distance unless he had been dropped. It is possible that he had been dropped by his father. I remember hearing about a father regularly lifting his child up and then letting him fall saying, "He's got to learn the hard way that he can't trust people." These are assumptions. I am only raising this question. I do not mean to question the validity of the reported regression as a regression, or its therapeutic value. I do want to raise this

question about whether the three-months-old baby could have this memory of depth and height and somehow could have learned to fear this.

The comments of Dr. Barber and Dr. Sarbin lead me to make the following points. It is true that we can find individuals whom we thought were actually "hypnotized" (but who said they were not), who could produce the phenomena which have been produced in hypnotized individuals (at least by the best of our criteria). But it is to the point that we can also find individuals who, under the ordinary conditions of not being hypnotized, cannot produce certain phenomena, but when they are "hypnotized," are able to produce these phenomena. I do not mean anything transcendental, nor do I mean anything magical. You can take an individual and show that he cannot produce a certain type of hallucination. Then you hypnotize him by means of some ritual (I don't care what method you use), and then show that under these conditions the individual can produce hallucinations. I think then we do have a basis for saying there is a state which we can call "hypnosis." It seems to me that it is not enough to say that we can find nonhypnotized individuals who can produce the same phenomenon that these people who are hypnotized can produce. I am sure we can. I don't believe that under any condition we can produce phenomena which transcend the potentialities of the individual. We all have our potentialities. We can't go beyond this. I do think, however, that under normal conditions many individuals cannot make use of all their potentialities. In a sense I agree with Dr. Erickson that most individuals have potentialities that are not being actualized but which, under hypnosis, come closer to actualization.

Dr. Orne has been doing a lot of work with simulators. I know he has been concerned with these same problems, but from a different angle. He has asked himself the question: Is there some one single test which can be given to two groups of individuals (one group composed of good hypnotic subjects, and the other a group with simulators, i.e., people who have been instructed to simulate, to pretend, people who have been instructed to simulate to do their best, to behave like a hypnotized person), and which only non simulators can pass? He says that if he can find such a test, and if he can find that individuals can pass it only if they have been hypnotized by means of a ritual, then he will be in a position to say that we can speak of hypnosis as a state, as a condition.

*Dr. Henry Guze:* I, too, cannot accept the validity of a three-month-old memory of that kind. However, we should maintain an awareness of very early affects in development which in some way may leave some kind of state that later may be associated with an experience. We should not neglect the aspect of imprinting from animal behavior, and also the data which we have gathered on early deprivation states, both in human beings and in the lower animals. As a comparative psychologist I have done work on very early deprivation, preweaning nursing deprivation in mammals, and we have definitely and distinctly demonstrated permanent effects, permanent changes. It is very difficult to draw the analogy, but I think that we should keep an open mind about the possibility.

The second point which Dr. Weitzenhoffer so very aptly brought forth is the problem of equivalent behavior. We are missing a very vital problem by forgetting that we can very often, in many states, elicit the same phenomenon by different means. For example, sugar

and saccharine are both sweet, but this does not mean that because they both give us very similar sensations of sweetness that therefore the two chemical compounds are the same. Similarly we can find types of behavior, all along the various biological levels, which appear to be the same type of behavior on the surface but which are elicited really by different means. Therefore I don't think that we invalidate hypnotic phenomena by the fact that certain hypnotic phenomena may appear in some people during the waking state. I would be extremely cautious about this.

# **Expectancy and Minimal Sensory Cues in Hypnosis**

Milton H. Erickson

Incomplete report written in the 1960s.

The significance and effectiveness of minimal cues in eliciting and altering responsive behavior is frequently overlooked, even disregarded, in hypnotic work, not to mention other forms of endeavor employing interpersonal communication. As a measure of impressing this upon medical students and candidates for doctoral degrees in clinical psychology, the following teaching procedure was devised and carried out over a period of years, with succeeding classes divided into small groups, each handled in a separate fashion.

Well-trained somnambulistic subjects capable of manifesting readily all of the usual phenomena of deep hypnosis were employed. At every opportunity new subjects were employed; they were kept unaware if possible of the work to be done; and whenever they were used with different groups, the actual group task was varied if possible. Subject sophistication as to the nature of the work done was found to occur frequently, but this was early discovered to be an additional valuable experimental finding and also an experimental control. It was not, however, deliberately employed.

Pairs of study groups were formed composed of one to six students each. At first an effort was made to select homogenous groups, but this was found to be most uncertain, a fact that proved experimentally advantageous.

The experimental procedure was relatively simple. The subject, in a profound hypnotic trance, was told that he was to be a teaching subject for students. He was to develop a trance state slowly in response to whatever induction technique was employed, taking from five to 10 minutes before he entered the somnambulistic state. This he would manifest to the students by some specified cue such as a deep sigh, of which the students would be apprised in their preliminary instruction. Then, and not until then, would the students offer suggestions for specific phenomena. These suggestions were to be "listened to attentively and understandingly." They were "to be executed in exact, precise accord, and only in accord with their actual, their real meaning as given." Their response was "to be made unquestioningly," that "nothing more, nothing less than that actually expected" was to mark their responses to the suggestions given to them, that they were to respond adequately and well to the "real, the exact meaning of the suggestions as you hear them."

To summarize-and it is necessary to summarize at this point to keep the nature and purposes of the experimental study in mind:

Somnambulistic subjects were told to accept "in their exact, their precise meaning" suggestions for specific hypnotic phenomena offered to them by students. They were earnestly instructed to respond with behavior that was no more and no less than the *actually expected responses*, and they were to listen attentively, well, and understandingly to the suggestions given.

The instructions to the students were given separately to each of the various groups. These instructions followed the same general pattern, but their content varied from group to group. For example Group A was told emphatically that Subject X was a remarkably fine somnambulistic subject and could develop all of the phenomena of the deep trance with the one exception of anaesthesia. A casual explanation was offered of individual variation of subjects, and it was pointed out to them that some subjects who seemingly could not develop certain phenomena would do so with the right operator.

Group B was given the same instruction about Subject X but told that, despite adequate ability in all other regards, X could not develop auditory hallucinations. Group C was told that Subject X could do anything except visual hallucinations, and Group D was instructed that Subject X could manifest everything except posthypnotic amnesia.

Each group was given the same total list of phenomena to elicit and the same set of token suggestions by which specific phenomena could be elicited. For example, in securing anaesthesia of the hands, the pattern of suggestions followed a noticing of the feeling in the hand, its warmth, its weight, its beginning feeling of coolness, of coldness, of slowly developing numbness, of final absence of feeling.

For visual hallucinations the pattern of suggestion included feeling oneself staring into distance, of vision getting blurred and indistinct, of fogginess and haziness developing, of finally seeing nothing but a meaningless haze in which would develop lines and shadows and curves and shadings and blurred forms that would become more and more clear and visible until they saw some chosen visual hallucination removed from the experimental situation such as a movie, a wedding party, etc.

For each of the deep hypnotic phenomena comparable sets of detailed, rather amateurish sets of instructions were made up and presented to each student group for careful study and use during this work with the subject.

# **Basic Psychological Problems in Hypnotic Research**

Milton H. Erickson

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Research in hypnosis and the presentation of ideas about hypnosis too frequently parallel the arguments that the seven blind men offered about the elephant. They argued first with much intensity and finally they did research. One got hold of the tusk and another of the tail, another felt the flank, another, the ear; the fifth examined the trunk, etc. Then, after each had done his complete examination of his particular part of the elephant, their arguments became intensified.

So it is with hypnosis. Everybody has a particular point of view, and it is necessarily a limited point of view, just as mine is. I am going to ask a critical question, therefore, of my colleagues: Why should anyone assume that hypnosis is of necessity a matter of distorting reality? Certainly such a forthright assumption is far beyond the call of any scientific duty. One could equally well and perhaps more rightly and informatively say that hypnosis is a state of readiness to utilize learnings. Why should it be viewed as a distortion of reality instead of some kind of readiness to use abilities normally? It has also been said that "Hypnosis is an alteration in perception," as if this were an abnormal process, an indictment of hypnosis. But is it not a part of our learning experience in life, and does it make hypnosis a distortion of reality?

I have been credited with using hypnosis to maintain the "strength of the ego" in deep hypnosis. The ego, so far as I know, is a helpful and convenient concept, but that is all that it is. "Ego" is a verbalization to permit better communication of abstractions employed in conceptualizing. Then to speak of "strength" as a reality attribute of an abstraction serves only to lead scientific thinking further afield.

It is also stated that hypnosis is a state where one person takes responsibility for another. I think that is on a par with the supposedly explicit and specific statements that hypnosis involves an interpersonal relationship in which one person, the operator, restructures the perceptions and conceptions of another person, the subject. Let us examine this statement to see if it is equally applicable in other fields. Anaesthesiology is a relationship wherein one person takes the responsibility for another. Education involves an interpersonal relationship in which one person, the teacher, restructures the perceptions and conceptions of another, the student. Eating involves an interpersonal relationship in which one person, the waitress, restructures the perceptions and conceptions of another person, the diner. In other words these presumably specific scientific statements intended to describe hypnosis are so generally applicable as to be descriptive of the teacher, the lover, the bus driver, and so on. One does not describe hypnosis scientifically by offering with an air of profundity vague generalities that can be paraphrased in a wealth of ways.

Science is the method by which we endeavor to achieve more and more explicit and specific understandings of phenomena, expressed in terms applicable to the phenomena themselves and not to other unrelated things.

The question has often been raised of universal hypnotizability and its bearing upon health and sickness. It is almost universal for us to be born with two feet and two hands, but what bearing does it have upon the question of health or sickness? So far as I know, hypnosis as a form of human behavior has been in existence since the beginning of the human race. Then why should hypnosis necessarily be singled out from the entire variety of human behaviors and designated as something that is highly specific or even slightly specific in relationship to mental health or mental sickness, emotional health or emotional sickness? Yet there is much thinking along that line because so many people believe unthinkingly that hypnosis is an abnormal state. Furthermore we may ask, Are not the manifestations that are developed in the hypnotic trance the behaviors learned in an ordinary waking state? One could parallel this type of thinking by the statement that the circulation of the blood is highly specific to mental, emotional, and physical health, and that such circulation varies according to sleeping, waking, and activity states. All of this is true, but it neither discloses nor constitutes any specific understanding of health or of blood circulation until it is refined in relationship to highly specific items of special reference.

In illustration of some points I wish to make I will cite the instance of a paralyzed man bedridden for 15 years. I saw him when he was in his 80s. He had pneumonia, was dying, and was delirious. The thing that astonished me was what that man was doing in his delirium. His history was this. His mother had been a very religious woman who compelled her children, from the age of four, to listen to her give a daily prolonged reading of the Bible. Year after year, every day, this was done without fail so that she repeatedly read through the Bible. Before his mother died this man had had six years of that daily listening to the Bible. His reaction to her death and to that Bible reading had been one of utter bitterness and resentment. At his mother's death he was placed in a foster home where there was no Bible reading, no church attendance, and no going to Sunday school.

He grew to manhood with these foster-home attitudes, married, never allowed his wife or children to go to church, and declared the Bible and all religion to be unacceptable. In his early 70's he suffered the paralyzing cerebrovascular accident that rendered him permanently bedridden. Then he developed pneumonia, became delirious, and in that delirious state he *recited the Bible*, chapter by chapter, hour after hour. Using a Bible to check his recitation, I found that he was reciting it correctly. To everybody's knowledge in the community he had not even looked at a Bible since the age of 10 years. I encounter people in the psychology laboratory and in the field of psychiatry and medicine who say in all seriousness, "Hypermnesia and those regressive phenomena attributed to hypnotic subjects are dubious, questionable, open to question," and they work out all manner of experiments to prove that hypermnesia and regressive phenomena are impossibilities and, what is worse, they believe their inadequate findings. That dying old man proved that regression to childhood memories is an actual phenomenon. Yet there are any number of

attitudes taken to disprove the legitimacy of hypnotic experiments and the concepts that one deals with in hypnosis despite their occurrence in the ordinary course of human events. If that aged, sick, delirious, brain-damaged man could recover childhood memories, is it not reasonable to assume that comparable behavior can be achieved by the young and healthy?

Another example I wish to cite is that of a hysterical patient who sat in a wheelchair for nine years, presumably totally unable to walk—"paralyzed." Once her child, who was on the other side of the room when the housekeeper went out, started the electric motor that ran the wringer on the washing machine and got his hand caught in the wringer. The patient, who was in a wheelchair on the far side of the room, jumped up, rushed across the room, rescued the child, and never thereafter showed any ability to walk. Of course hysteria can be called a functional thing: yet that hysterical paralysis was sufficiently real to govern most significantly that woman's life. What did that woman say about this rescuing of her child? She said she did not do it, she did not and could not get up out of her chair, that the child had just looked at the washer. Nevertheless the occurrence had been observed in its entirety. That woman was not deliberately or even unconsciously lying. Two orders or categories of behavior were manifested, one which occurred in reality and another which constituted a reality of understanding for her. Yet research workers will propose methods of study to determine the "validity" of such behavior despite its actual occurrence and overlook the far more important need to devise methods and procedures to elicit such manifestations for study as such. So often the experimenter blindly construes experimental negative results to signify nonexistence of phenomena instead of incompetency of procedure.

Somewhat comparable is the case of Jimmy. For 30 years he had been a deteriorated patient in a state hospital, sitting around on a bench, drooling, untidy, filthy, just about as "deteriorated" as a patient can be. His record disclosed his condition to have been at a constant low level since admission. He was simply and obviously an old, hopelessly deteriorated schizophrenic patient. Then one day a fire broke out in the hospital, and the attendants in that ward became frightened and panicky. Jimmy got up, walked over to the first attendant, said, "Listen, you take your keys and go to that end of the hall and you stand by the door." He went to the other attendant and he said, "Now you get all the patients and you march them over there." Then to the second attendant Jimmy said, "Give me your keys," and Jimmy himself systematically searched each room thoroughly, and when he had made certain that there was no frightened patient concealed in any part of the room, he locked the door and moved on to the next room. This done, he left the ward, locking the door behind him so that no patients could run back into the ward. He then walked over to make certain that the two attendants had marched all the patients outside and were handling them adequately out in the yard. This done, he said, "Here are the keys," and lapsed into his old "deteriorated schizophrenic self" again, a seemingly total loss. Now this instance may be quite different from that of the hysterical patient—or is it different? When you produce in hypnosis tremendous alterations in the subject's behavior, is it not possible that processes comparable to those which sometimes occur under ordinary or pathological conditions are set into action in a limited, but controlled and instructive fashion?

Another thing I want to mention is the matter of conditioning. Everybody knows that you can get conditioned responses in the psychology laboratory. You ring a bell, you flash a light, do this and that. You do it a sufficient number of times and you can get a conditioned response that governs the subject, and you can do a number of things in relation to that conditioned response. I think of Ann, who walked into a dentist's office when she was eight years old. She was a frightened little girl, and she was squalling and yelling because her parents were the type of people whose children would cry when they went to see the dentist. The dentist believed in the wet-towel method of handling crying children. He slapped her face with a wet towel, picked her up and put her in the chair, slapped her face again, and told her, "Shut up and be a good girl." So she was! At age 21 Ann walked into another dental office and said to the receptionist, "I want to talk to the dentist. Tell him I'll be out in the hallway." The receptionist told the dentist about it as he went out in the hallway where Ann was standing fearfully. "You won't slap me, will you?" she asked pitifully. Ann was a college graduate, an intelligent girl, but such was her uncontrollable fear that she had to make absolutely certain that she would not be slapped. It was impossible for her to believe otherwise at first, and the dentist had much work teaching Ann that brutality was not a part of dentistry. Ann had never been to a dentist since that childhood experience—she had been thoroughly conditioned in one single experience. The dentist had to be most laborious in his deconditioning of the girl, who now wears complete dentures as a result of that original experience.

Why should not one assume that if such a massive thing can happen in one little instance of everyday life, massive phenomena comparable in intensity and effectiveness can be secured by hypnosis in a directed and controlled fashion? Why not assume that the same forces that condition people in ordinary life can be as effective in hypnosis? The people are the same, they still possess their innate abilities, and we all know that a single starry-eyed look can initiate generations of events. Why assume that hypnosis negates the possibility of sudden effective conditioning?

I recall a little girl about seven years old to whom in jest, pointing to the empty air, I said, "You know, that's an awfully nice doggie there. He's black, isn't he?" And the little girl stepped over and petted the dog. She fed him cake. She had a delightful time playing with that dog, and I had a delightful time following up the results of that simple jest, because the little girl was so very pleased with that dog. When visitors would come, she would ask them, "Please walk around the dog. He's sleeping in the hallway." For many months she played extensively with the hallucinatory dog.

The girl is now grown up, a mother of children, and she hopes that every one of her children will have as nice a dog as she had when she was a little girl, though she recognizes that it was some kind of visual image or hallucination, but nevertheless a very real experience and memory, and a good and happy one. She found that dog as real to her in ordinary, everyday, waking life as are the figures in a nighttime dream during physiological sleep, and such dreams can be decidedly vivid and happy. And what about the imaginary playmates that children have? I knew a little girl who had a playmate named Booboo. Full respect had to be accorded Booboo in every possible way. I have

encountered many people who have had imaginary playmates that were a normal part of their lives as children. Comparably, why should not one expect a subject in the hypnotic state to manifest the same sort of normal behavior with similar realism? Why should not the highly intelligent child grown older experience again a past reality as competently as when a child? Why assume that visual images are willful confabulations in adults and experiential realities spontaneously developed in children? Scientific study of such possibilities is needed, not dogmatic negation.

There is the matter of a phantom limb discussed in Dr. Wright's chapter. You can encounter people in ordinary, everyday life who will discuss their phantom limb as a reality. The reality of the phantom limb as an experiential phenomenon cannot be questioned. From whence comes the learnings that produce a phantom limb? What are the processes that enter into it?

The phantom limb is a phenomenon that occurs both in the uninformed and *in those having advanced academic and professional degrees* in both psychology and medicine. In a way it is a parallel of the phenomenon of partial body dissociation that can be produced hypnotically. Perhaps the same or similar mental processes are involved. The matters of dissociation, association, and reassociation are still a virgin field for hypnotic exploration, and much more can be accomplished by research than by the fervent presentation, without cognizance of the actual phenomena, of personal theories of role-playing and simulation. It is satisfying personally to offer theories and hypotheses, but it would be so much better to investigate actual phenomena. Research should be centered around phenomena, not around achieving fame by placing in the literature a well-argued theory intended to "explain" some unexamined manifestation. Profound studies of hypnotic phenomena themselves are needed rather than idle, though earnest, speculations and pronouncements. This constitutes the real need in scientific advancement.

In a related area, what are the forces, the sensations, the experiential learnings that enter into what we call the body image? The body image is an extremely important thing to all of us. When we lose a limb, or have a hand or foot amputated, it is important to remember that experientially we still have a body image in our total unrecognized understandings of ourselves which did not undergo an amputation. That vital sense of the "beingness" of the self is often overlooked, and this feeling of the integrity of the bodyself offers another point of departure in understanding what constitutes self-realization. Why should not the person in a hypnotic trance be able to develop upon suggestions manifestations conducive to a study of the nature of dissociation, depersonalization, and related phenomena? These are areas of research vital to both medicine and psychology.

Now I wish to consider another misconception about hypnosis. It is often asked whether or not some hypnotic phenomenon is real. Is the hypnotic trance a valid phenomenon? For instance, a question is asked that indicates that failure to close the eyelids or failure to be able to open the eyelids is definitive of the light state of hypnosis. To use eyelid closure to define hypnotic states even in part seems to be as absurd as defining mobile life as the ability to move in a *notherly* direction, as if the direction were pertinent. The

minimum of experience in hypnosis discloses that hypnotized subjects can open or close, or keep closed, the eyelids, as is also the case in the waking state. Why then, in various books on hypnosis, in various experimental studies, is there such effort to define hypnosis in terms of the presence of absence of little bits of isolated behavior, not even necessarily related to hypnosis? There are whole classifications devised to show that in the light trance you find phenomena "A" and "B" and "C," that in the medium trance there occur "D," "E," and "F," and in the deep trance there develop phenomena "G," "H," and "I," as if that were absolute law, as if human behavior followed rigid sequences and rigid relationships.

There are people who try to define hypnosis in terms of sequences of behavior, of selected situations, or of the interpersonal relationship (as if a tall, blue-eyed subject and short, brown-eyed operator were important in effecting a special form of hypnosis). There are also efforts to define it in special descriptive terms to be applied to both operator and subject.

Hypnosis is also falsely defined in terms of the purposes to be achieved, as if you could have "medical" hypnosis and "dental" hypnosis and "psychological" hypnosis. This is on a par with describing anaesthesia in surgery as "right kidney anaesthesia," "left kidney anaesthesia" and "gastric resection anaesthesia." Hypnosis should not be defined in terms of the operators and their interests nor in terms of special points of view. This statement is but introductory to another point of interest, and that is the discounting of hypnosis if certain phenomena are not consistently present. For example, it is dogmatically asserted that if catalepsy is not consistently present, hypnosis is to be doubted, that if posthypnotic phenomena are not consistently present, hypnosis is doubtful. In other words the assertion is too frequently made that there is good reason to doubt hypnosis unless all of certain arbitrarily chosen hypnotic phenomena are present. Comparably, it might be declared with equal credibility that since vision, hearing, and limbs are universally present in human beings, congenital absence of one or more of these would raise serious doubts in a "scientific" mind about identifying such a person as a human creature.

There is the tendency to test hypnotic phenomena with nonspecific tests to determine specific results, with consequent negative findings and hence false negative conclusions. For example, the testing of anaesthesia with a psychogalvanometer may prove the presence of tissue responses and of neural behavior, but this is not necessarily pain. Yet because the psychogalvanometer may show fluctuations, the conclusion may be reached that there is no hypnotic anaesthesia, that the subject is fabricating or simulating or role-playing. The obvious possibility that the psychogalvanometer may also indicate sensations and reactions other than pain can be easily overlooked. A painful stimulus is not necessarily a pure stimulus, and other responses than those occluded by anaesthesia may register. The mere devising of a test, however thoughtfully done, does not mean that it is applicable or meaningful. It too must first be subject to rigorous testing. For example, even questionnaires and other similar studies, based upon carefully sought opinions, do not serve to define hypnotic phenomena, however well they may summarize more or less informed opinions.

I know clinically that there is such a phenomenon as psychological anaesthesia. I recall the instance of a World War II combat veteran with an excellent war record who, while attending college, leaped downstairs, sprawled on the floor, picked himself up, and walked home. The next day his foot and ankle were so badly swollen that he had to wear a bedroom slipper to class. Sometime later, since the swelling continued unabated, he came into the Veterans Administration hospital, where I examined him. As he walked across the room, the sound of crepitus was definitely audible. The X-ray film showed extensive comminuted fractures of the bones of the ankle and foot. When so informed, the patient astonishedly remarked, "But I thought broken bones hurt!"

Medical examination showed an apparent profound loss of all sensations—tactile, pressure, warmth, cold, and vibration—for the entire lower leg up to within three inches of the level of the lower end of the patella. Above this level sensations were normal. Obviously the patient, who disclaimed any pain experience with his injured ankle, had developed, apparently at the moment of injury, a profound, uncontrolled, hysterical anaesthesia that was nevertheless physically clearly delineated. Just as this sort of manifestation can occur as a spontaneous development in a person with an excellent "normal" record, a comparable hypnotic phenomenon of equal effectiveness can be developed for scientific study. The simple fact that analogous conditions can develop both in everyday life and in hypnotic states should be ample warrant to accept those of the hypnotic state as sufficiently valid to justify scientific examination.

Hypnosis is a state of awareness, a very definite state of awareness with special types of awareness. Hypnotic subjects are not unconscious in any sense of the word. Rather they are exceedingly aware of a great number of things and yet able to be unaware of an equally great number of things. They can direct and redirect their attention in remarkable ways ordinarily not possible in the waking state but possible in the nighttime dream state, which is a form of cerebration. They can do the same sort of things that they do in the ordinary waking state, but often in a more intentional, controlled, and directed manner. For example, consider all the things that are being overlooked in your present state of conscious awareness. Have you forgotten the shoes on your feet, the collar around your neck, and the glasses on your face? Certainly you have, and you will forget them again and again, but not consciously upon request. You can be sitting with a newly-made friend whose name you know when suddenly another train of thought comes along, and you find that you have forgotten his name, an easy thing to do unintentionally in the waking state, but also easy to do upon simple request in the hypnotic state. Quite probably the same mental processes are involved. Much research is needed to define these manifestations.

There is also the problem of pain. Hypnosis has been used repeatedly and successfully to alleviate or even to abolish pain in severe chronic cases and with startlingly successful results in some cases of terminal painful malignant disease. The clinical reality of the pain relief is unquestioned, but the scientific understanding of what is done, and how, leaves much to be desired. The clinical demands of the situation require that every presumably efficacious suggestion be employed, while a "scientific" approach demands

that a “controlled and systematic” approach be used. However, the situation is one involving human life and suffering, and advancement of objective scientific knowledge is not the primary goal. This fact should not exclude from acceptance the finding that pain can be abolished or alleviated, nor should the results be dismissed as “simulation” or “role-playing,” because “controlled study of individual items” was not done. The problem is this: Can the laboratory worker devise an experimental study or analysis that will permit an understanding of the validity of the clinical results achieved instead of dismissing the results as attributable to unknown and unknowable factors? The true task of scientific research is to adapt itself to existent problems, not just to form hypotheses for examination.

The pain of cancer is an experiential reality. Too often the uncritical assumption is made that pain is a pure and simple sensation and therefore should be so tested in the laboratory. As a clinician I find that patients use a wealth of adjectives to describe pain—burning, surging, cutting, throbbing, dull, heavy, stabbing—and therefore as a clinician I offer suggestions directed not only to the pain but to the presumed aspects or attributes of that pain. The assumption is that if an aspect of the pain can be altered, then the entire pain experience can be changed. Clinically this is so. The job of laboratory research is to discover what does happen rather than to discount the validity of the patient’s experience. Then, too, pain is not simply an experience of immediate reality, but is something that is interpreted in terms of past experiences as well as future expectations. The clinician knows that the patient with a painful terminal disease suffers from the pain of the immediate moment, to which is added the memory of past pain and the anticipation of future pain. Hence the clinician using hypnosis for pain relief knows the importance of suggesting amnesia for the memory of past pain as a means of reducing current pain. Equally important are suggestion to prevent the anticipation of future pain.

How does one examine the “frames of reference” within which the patient views and experiences pain in the laboratory, where pain is regarded as the response of a specific type of nerve to a noxious stimulus? The clinician has to formulate a general approach, and the laboratory worker who wishes to contribute to an understanding of human behavior and experience in relation to pain needs to devise experimental procedures to measure these matters.

Additionally, while alleviation or abolition of pain, especially by drugs, are the traditional methods of treatment, the spontaneous, natural way of dealing with pain involves a multitude of behavioral reactions such as distraction of attention from the pain, amnesia, dissociation, displacement, the development of analgesia or of anaesthesia, and a reinterpretation of the sensations. Clinically, and through our own daily experience, we know many varieties of behaviors can occur. In the use of hypnosis clinically it is our obligation to be aware of these possibilities and to utilize them. In the scientific psychological laboratory the obligation is to study as a phenomenon the reinterpretation, let us say, of pain as a worthy scientific phenomenon in itself.

Hypnosis, by permitting the individual to call upon and utilize singly or collectively the great multitude of bodily learnings accumulated in a fragmentary fashion over the years, offers endless opportunity for the laboratory scientist to single out and examine individual manifestations. In this way hypnosis offers a means of reaching an eventual understanding of the processes entering into the development of various behavioral phenomena. This will not be achieved, however, if scientists formulate a hypothesis of what things should be and then look for those items that fit the hypothesis and discard those that do not, as is the case with those who say that hypnosis is role-playing and consider any contrary hypnotic phenomena as invalid, or those who say that hypnosis is a regressive phenomenon and ignore the great wealth of obviously nonregressive hypnotic phenomena.

Perhaps the most important thing to be said in the matter of hypnotic research is that there is a phenomenon of behavior and experience best termed in our present state of understanding as "hypnosis." Nothing is gained by saying that there is no such thing as hypnosis, that hypnosis is not hypnosis but merely something else; just as nothing was gained by the emphatic and long "proved" declarations that iron, being heavier than water, would sink in water and that machines heavier than air could not fly through the air.

One needs to assume that certain forms of behavior and experience which differ from ordinary conscious awareness can, with common consent, be called hypnosis. With this achieved, there can then be a systematic study of the various individual items of manifestation. This would be far more fruitful than formulating an all-comprehensive definition of a set of phenomena occurring in a human being, especially since these phenomena are little understood and manifested by a human personality infinitely less understood.

I wish to discuss two other matters pertaining to areas for research in hypnosis, both of which have been touched upon repeatedly more or less indirectly. Foremost is the matter of how one should scientifically study hypnosis. It is not sufficient just to devise careful tests, measures, and procedures, and then apply them to phenomena to secure results. That is but a beginning, a means of discovering if a test may be useful. The testing of the specific gravity of iron against the specific gravity of water yielded no informative results in the matter of shipbuilding until the shape of the piece of iron became an essential part of the inquiry. And so it is with hypnosis. What are the tenuous shapes, forms, variations, and seemingly abstract considerations that will make possible concrete realizations? The readiness to accept, not to discard, to examine, not to disparage, each item of behavior that seems related to hypnosis is most important. We need to take the attitude that there are things we do not know or understand, and because we do not understand them, we ought not attempt to offer comprehensive formulations of hypnosis as a total phenomenon, but rather endeavor to identify manifestations as such and examine their relation to each other.

Finally there is another area of vital importance for research both in the clinic and the laboratory. This is the matter of induction of hypnosis. Throughout the ages there has

been a dependence upon, and an adherence to, formalized, ritualized, traditional methods of trance induction, as if hypnosis were a phenomenon dependent upon the utterance of certain words in a certain order while the subject sits in a certain position and physically performs certain designated acts. Too often it is completely overlooked that hypnosis, like physiological sleep, is a process of behavior that can occur under a great variety of circumstances. Physiological sleep is likely to occur most easily when lying in bed, but it can occur in a lecture room, while driving a car, or when helplessly angry with another person. It is what actually occurs during physiological sleep that is important, not the externalities, even though externalities of all kinds can be significant. So it is with hypnosis. Induction procedures are of service, but the question remains, "What is it that does occur when hypnosis develops?" The induction procedure provides a setting, and only a setting, in which hypnosis may develop; it offers a period of time during which it develops; it offers various distractions to absorb the attention of the subject while hypnosis occurs; but the question is, "What is it that actually takes place within the subject while the operator busies himself with a ritualistic recitation of a learned formula of procedure?"

This is an area of research that is of tremendous importance in determining the scientific nature and character of hypnosis itself. However, all attempts to study hypnosis in relation to eye fixation or body relaxation are simply confusing; they are like attempting to study physiological sleep in terms of (1) a hospital bed, (2) a studio chair, etc.

Hypnosis itself, what processes occur within the subject, in what manner the body alters its usual functioning, and out of what experiential learnings of the past the body so learned to function, all constitute a part of the exceedingly rich field for research in hypnosis.

In brief, we need to look upon research in hypnosis not in terms of what we can think and devise and hypothesize, but in terms of what we can, by actual observation and notation, discover about the unique, varying, and fascinating kind of behavior that we can recognize as a state of awareness that can be directed and utilized in accord with inherent but unknown laws.

# **Experience of Interviewing in the Presence of Observers**

Milton H. Erickson

Reprinted with permission from L. A. Gottschalk and A. H. Auerback, *Methods of Research in Psychotherapy*. New York: Appleton-Century-Crofts, 1966, pp. 61-63.

The experience of interviewing two psychiatric patients in the presence of observers and of attempting to induce hypnotic trances in them with the knowledge at the time that my efforts were being filmed for subsequent critical analysis by highly qualified persons constituted an interesting project for me. The primary consideration for me was the execution of the proposed task as adequately as possible. My own personal emotions were considered neither important nor relevant.

The emotional reactions of my patients, however, in relation to me, to the interview, to the hypnosis, to the surroundings, to the attendant circumstances, or deriving from their own psychiatric condition, were all considered to be a proper part of the proposed study. Therefore it would be a part of my responsibilities to be as aware as possible of the patients' various emotional states, to direct and to utilize them in such fashion that the patients' attention and interest would be directed to me rather than elsewhere.

The proposed experimental procedure definitely interested me. It offered an opportunity to deal with a patient in an entirely new kind of situation that could be recorded most effectively for future and for independent study. It was also a situation that the patient presumably could comprehend to a considerable extent and to which he could quite conceivably react in a variety of interesting ways. Also, the proposed procedure gave rise in my mind to recurrent, curious questions of what manner of affective, sympathetic, and empathetic responses the observers, immediate and subsequent, would make which were comparable or related to those I would experience in the actual work situation with the patient. As it later developed, now and then when I experienced one or another reaction to my patient, there would recur, momentarily only and not as a distraction, the curious question of what, if anything, the observer could possibly sense of a comparable character.

My mental set in approaching the task was that of discovering what I could understand of the patient's behavior and what I could do about it or with it. The fact that I was under observation was of no concern to me, however primary that fact might be to the observers. My task was that of observing the patient and working with him, not speculating about the possible activities of others.

To begin, my first procedure was to make a visual and auditory survey of the interview situation. I wanted to know what my patient could see and hear and how a shift of his gaze or a change of his position would change the object content of his visual field. I was also interested in the various sounds, probable, possible, and inclusive of street noises,

that could intrude upon the situation. I inquired about the age, height, weight, and sex of my patient, and I tested various possible seating arrangements to check relative physical comfort, the possibilities of adequate recording, and the predominant content of the patient's general field of vision. I also inquired about any special accommodations to be made to meet the requirements of the recording apparatus. As a measure of more adequately understanding my patient's possible reactions to the observers, I made special inquiries about their positioning. Since one observer (Dr. G.) was there by special request, I felt he should be placed so that he would have the least possible effect upon the others present.

Upon the arrival of my patient I immediately became intensely absorbed in the task confronting me. Occasionally I would feel momentarily oppressed by a sense of having only a limited time, followed by a strong need not to let my patient sense that hurried feeling. Now and then I became aware that I had been so attentive to my patient that I had forgotten where I was, but I would comfortably and instantly reorient myself. On at least three occasions I became momentarily puzzled by a pair of glasses on the side of the room toward which I was facing. Each time I was astonished to discover them on a face and then to recognize the face as that of Dr. G.

Now and then I felt an urgent need to give some brief recognition to the immediate environment in some casual way so that my patient would not be given the impression of an intentional avoidance. One other intense emotional reaction on my part concerned the use of my cane at a moment when I moved it rather ostentatiously. My purpose was to force the patient to give his attention to the cane and thereby to effect a displacement of his hostility from me to the cane. As this was being done, the thought flashed into my mind that perhaps the observers would not understand the purposefulness of the maneuver. There was an immediate feeling of strong dismay that this irrelevant thinking might have altered adversely the manner in which the cane was being moved. This emotional concern vanished upon noting that the patient was responding adequately.

At the close of the first interview I felt no particular fatigue and I was as interested in seeing the next patient as I had been in seeing the first. At the close of the second interview I had an immediate sensation of great fatigue, physical and mental, but this passed promptly. It was followed by a distressing feeling that I might have worked my patients too hard, but this was replaced by a feeling that I had completed a much longer and much more difficult task than I had realized at the outset. I then felt highly pleased that an experimental approach with adequate recording was being made to the difficult subjective, intuitive, interpersonal relationship that exists in the clinical interview. As I completed this thought, a sudden wave of recollections surged through my mind. Throughout both interviews, as I noted each item of behavior, each fleeting change of expressions on my patients' faces, I had comforted myself by thinking, "But I can have a second look at that." This was later mentioned to Dr. G. in discussing the experimental project.

I consider this sound-film recording of a physician-patient interview to be a most valuable research procedure for investigating what constitutes an interpersonal

relationship. It offers an opportunity to secure a fixed and reliable record of the actual occurrences, both pertinent and incidental, that record being in no way itself subject to alterations by mood, memory, bias, or any other behavioral force. Furthermore this record is impartial in its treatment of both the interviewer and the interviewed, and there can be no weighting or shading of the evidence in the record itself. It also permits a sharp and informative contrast with data obtained from the same situation by trained observers, and it should reveal much concerning the nature and character of human error.

Of exceeding value is the sound-film in recording those qualitative variables of interpersonal communication such as facial expressions, gestures, intonations, inflections, mispronunciations, changes of tempo, and all the other minimal but effective modifications of speech that carry significant meanings. A sound-film is of particular value since it permits at any time a review, again and again, of any minimal manifestations, which is what I meant when, during the interviews, I comforted myself by the thought, "But I can have a second look." In the actual clinical situation responses are often made in minimal fashion and similarly sensed; often the entire process of communication is unconscious, and a sudden irruption into the conscious mind may complete a long process of unrecognized communication. Also of great significance is the fact that the sound-film permits the participant to discover many things which he did unwittingly, unconsciously, and even perhaps with no realization that he could manifest that manner or kind of behavior. I know that in the situation of dealing with patients I often wish I knew exactly what I was doing and why, instead of feeling, as I know I did with both patients, that I was acting blindly and intuitively to elicit an as yet undetermined response with which, whatever it was, I would deal.

In brief, this method of recording the interactions between selected people in a chosen setting offers a rich potential for understandings of extensive value for both therapist and patient.

# A Brief Survey of Hypnotism

Milton H. Erickson

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## **HISTORICAL SKETCH**

Hypnotism, or the artificially enhanced state of suggestibility resembling sleep, has been known for many centuries. In ancient days, however, there was neither understanding of it nor appreciation of its nature, and it was attributed to the powers of darkness and magic. It is well known that ancient conjurers, magicians, and fakirs, particularly among the Hindus, practiced various forms of hypnotism. Even in the present day Hindu fakirs are peculiarly adept in this procedure, as observers of their art will attest. The ancient magicians in the time of Genghis Khan also practiced group suggestion and hypnosis in order to obtain visual and auditory hallucinations, of which practices Marco Polo has given several somewhat unsatisfactory accounts.

The first practice of suggestion as a therapeutic measure, although it was not recognized as such at the time, began with Mesmer, whose period was from 1734 to 1815. Because of his development of the art the word *mesmerism* was adopted as a descriptive term. Mesmer's practice of suggestion therapy consisted in the use of "the natural qualities of animal magnetism" which could be induced to manifest themselves in people, trees, or any chosen object. In establishing his clinic Mesmer appears to have had an unusual appreciation of clinical psychology. He had beautifully decorated apartments, illuminated carefully with subdued lights, the rooms filled with the odor of incense, and the walls covered with velvet hangings. In addition, there were usually the gentle tinkle of running water and soft, faint music. His patients waited as a group in a large treatment room, which he would enter elaborately gowned. He administered therapy by gently stroking the arms and ailing parts of the patients, thereby "transferring" to them the healing qualities of "animal magnetism." Often, as would be expected, he achieved satisfactory and even startling results with patients who had been abandoned by orthodox physicians. During his career he discovered that the "quality" of "animal magnetism" could be transmitted to inanimate objects and that patients coming in contact with those articles would experience a cure of their ills. Critical observers at his clinic saw patients sent out to touch "magnetized" trees, thereby becoming healed. However, it was noticed that patients were cured even though they touched the wrong tree. Consequently the opinion developed that Mesmer was a charlatan and there was no realization of the psychological truths of this therapy. Despite the unfortunate reputation Mesmer received, many physicians visited his clinic and acquired valuable ideas and information.

The next great figure in hypnotism was John Elliotson. He was born in 1791, studied medicine at Edinburgh, and in 1817 was appointed assistant physician at St. Thomas' Hospital, where he aroused much antagonism because of his liberal and radical attitudes toward the practice of medicine. He was one of the first men in England to

approve of Laennec's stethoscope, thereby incurring great ridicule for having accepted the "silly fad." In 1837 he was appointed professor of the practice of medicine at the University College in recognition of his outstanding clinical ability. At about the same time he began his researches in hypnotism, or "mesmerism" as it was called. He practiced it on patients, received much condemnation for this, and in 1846 for this reason was made the victim of a bitter attack by the *Lancet*. Unfortunately, Elliotson believed in phrenology, clairvoyance, and odyllic forces with the consequence that his researches in hypnotism were placed in a similar category. Nevertheless, he had a wide practice and left a great many records of bona fide cures.

Elliotson was succeeded as the champion of "mesmerism" by James Esdaille (1808-1859), who began his work in India, stimulated in the study of hypnotism by reading Elliotson's reports. Under governmental protection he succeeded in the application of hypnotism to medical cases, and was instrumental in the founding of a hospital for this express purpose. Before he left India, he had utilized it in thousands of minor and in about 300 major operations. Records of these cases are still available to the scientifically curious. Despite the protection of the government, he was subjected to much persecution by his fellow-practitioners.

Following Esdaille came James Braid, an English surgeon who was born in 1795 but who did not take up the study of hypnotism until 1841. At that time he witnessed a "mesmeric trance" and was loud in his denunciation of the entire scene as a fraud. By chance he was induced to make a medical examination of the subject, following which he became intensely interested in the phenomenon and devoted himself to a thorough investigation of the manifestation. It was due to the researches of Braid that hypnosis was placed on a scientific basis, and his coining and application of the terms *hypnotism* and *hypnosis* to the phenomenon instead of the misnomer of *mesmerism* facilitated its acceptance by the medical profession. In the course of his investigations Braid reached the conclusion that hypnotism was wholly a matter of suggestion, which constituted the first attempt at a scientific and psychological explanation. He made a detailed study of the technique of hypnosis and the various phenomena obtained in trances. He was a prolific writer and left extensive treatises which are surprisingly modern in their conceptions. Since Braid, various other well-known clinicians have been interested in the subjects, particularly Charcot, Liébault, Bernheim, and Heidenhain. More recent scientific leaders who studied hypnosis are G. Stanley Hall, William James, Morton Prince, Sir William Crookes, and Pierre Janet.

## **METHODS OF HYPNOTIC TRANCE INDUCTION**

The methods employed in inducing hypnotic trances vary widely among hypnotists. A good operator varies the details of his technique from subject to subject, fitting it to the peculiarities of each personality. Mesmer's method was to put his hands upon the shoulders of the patient and then to stroke the arms downward to the fingers. In addition, he made various passes and gentle, soothing contacts with his hand over forehead and the part to be healed. Esdaille usually put his subjects in a darkened room and told them to sleep, and thin made passes without contact over the entire body. Braid customarily had

his subjects look at some bright object and instructed them to relax and to fall asleep. Later he modified his technique to that of the direct verbal method in which repeated suggestions of fatigue and sleep were given. As a result of the present-day scientific understanding of the phenomenon, the direct verbal suggestion technique has become the more common. Drugs also may be utilized to produce hypnotic states, but the results are unsatisfactory since the narcotic effects frequently interfere with trance manifestations. Drugs which may be used are paraldehyde, barbital compounds, and amyta.

Usually the best method of inducing a trance consists in placing the subjects in a relaxed and comfortable position, giving them at the time a few brief explanations in order to relieve any misapprehensions and at the same time afford them some idea of what is about to happen. Then, suggestions are given in a carefully graduated form to the effect that they are getting tired and more tired, that they are getting sleepy and more sleepy, and that they will gradually go into a light sleep and thence into a deeper and deeper sleep. The period of time required varies with every subject, some taking less than one minute to go into the deep sleep for the first time and others requiring hours of effort. Once the subject is asleep the same manner of technique is utilized to elicit any of the characteristic manifestations of the trance state. Repeated suggestions to the effect desired are given until the subject responds. The trance is usually terminated by the request to awaken, but occasionally it becomes necessary to arouse subjects slowly by suggesting wakefulness in the same manner that sleep was suggested.

## **EXPLANATORY ASPECTS**

There are a number of questions concerning hypnosis that must be mentioned since they arise at every discussion of the topic. In the first place many ask, "Is it harmful?" A study of the scientific literature reveals no good evidence of harm inflicted, or any very logical theoretical possibility of injury other than that which might accrue from ordinary personal contact in the waking state (Erickson, 1932).

Nevertheless, many unscientific writers, some of whom frankly confess their inexperience with hypnosis, are emphatic in their denunciation of it, basing their attacks upon medieval conceptions of the phenomenon. Earnest, thoroughgoing students, however, seriously question the possibility of harm. In the author's experience, in which some of his subjects have been hypnotized from 300 to 500 times each over a period of years, no harmful effects have been noted. Nevertheless, hypnotism is not a matter for superficiality and carelessness, but should be utilized only by capable and trained workers even as are other complex and difficult techniques.

The second question is, "What would happen if you could not awaken the subject?" The experience of capable investigators who have questioned this possibility, as well as the author's, indicates that such a likelihood could not occur. It is possible, and occasionally happens, that subjects are so comfortable in the hypnotic sleep that they are unwilling to awaken, but if the operator allows a subject to sleep despite commands to awaken, it would indicate merely his ignorance of proper hypnotic technique. Subjects can always be awakened by a series of suggestions paralleling those which put them to sleep.

Further, even if the subjects did continue to sleep, as soon as they were left alone the hypnotic sleep would spontaneously change into a natural sleep—an important though little appreciated fact. This is also true for sleep states induced by posthypnotic suggestion. As for the question of what would happen if the hypnotist suddenly died or left the subject in a deep trance, there would occur one of two possible things. Either the trance sleep would lapse into a natural sleep or the subject, becoming aware of the absence of the hypnotist and sensing the loss of contact with him, would awaken spontaneously to ascertain the nature of the situation. Essentially, hypnosis is a relationship between two people, and when one of them is removed from the situation, the phenomenon then ceases because there can no longer be the cooperation necessary between the two.

But there is another and indirect implication of these questions which deserves an answer. This is the assumption that the sudden and absolute removal of the hypnotist or his unwillingness to awaken the subject would wreak irreparable harm. This idea is a continuance of the ancient superstition of “strong mind/weak will” arising from the mistaken idea that hypnotism in some subtle, occult fashion altered the very being of the subject, thereby giving the hypnotist unlimited power and control over the entranced person. This power had then to be relinquished formally and personally or otherwise the subject would be psychically crippled. Fortunately, the light of present-day psychological knowledge as well as experimental findings exposes the absurdity of such ideas.

Another problem which arises is the question of whether or not an unscrupulous hypnotist could make use of the art for malicious and criminal purposes. Briefly, the answer obtained by careful and thorough investigators is negative. Suggestions leading to antisocial acts or even to mere improprieties are rejected, and if pressed upon them, the subjects will invariably awaken with a disturbed and uneasy feeling and usually become uncooperative regarding further hypnosis. In unusually cooperative subjects when this is attempted there will be a seeming compliance with the suggestion but it will be executed in such a fashion as to defeat its purpose. The subject instructed to stab the first comer will pick up a strip of rubber or some such harmless object and simulate the act. If given a real dagger, the stabbing will be done slowly and carefully in empty space or else not at all. Authentic reports to this effect are given in the literature. In the author's experimentation his siblings were used as subjects, since there was a possibility that the relationship offered greater opportunities for positive findings and at the same time would enhance the value of negative ones. The results of repeated attempts to induce them to commit various improprieties can be summed up best in the uneasy and worried remark of one sister in the trance state, who said in her effort to explain her utter unwillingness to do as asked, “Well, if you want me to do that, you can wake me up and let me do it while I'm awake.” The same and additional experiments were repeated on friends and acquaintances, all with negative results. Schilder and Kauders (1927), after extensive experience, have declared that hypnotism is a dubious aid for antisocial purposes.

The author's own experience indicates that the loss of environmental orientation in trance states constitutes an actual obstacle to the misuse of the art.

Also in this regard there should not be an oversight of the significance of the actual social contact of two personalities in the hypnotic situation. With this in mind there is the realization that harmful results may be attributed more properly to such social contact rather than to the hypnosis per se. Further, when it is considered that the hypnotist must implant his suggestions in the vast aggregate of mental reactions and patterns accumulated throughout the subject's lifetime, the great difficulty of causing extensive changes and alteration of behavior and personality reactions is apparent. Indeed, what marvels of mental catharsis and psychotherapy could be achieved were it possible to establish significant and meaningful alterations of personality reactions by a few suggestions given in a time-limited situation.

A fourth question is, "What is hypnotism? Some mystic occult magical thing based upon the overwhelming influence of a strong personality upon a weak will and accompanied by the emanation of a secret power?" Actually, of course, it is not this. On the contrary, it is a psychological phenomenon as little understood as most psychological phenomena. It requires no unusual personality or strong will on the part of the hypnotist or weak will or feeble intellect on the part of the subject. Any person willing to learn the psychological principles involved can perform hypnosis. It is purely a matter of technique, a technique of convincing and persuasive suggestion similar to that utilized every day in ordinary commercial life for quite other purposes. Just as anyone may be a hypnotist, so may anyone be a subject, whether man or woman, old or young, excluding only the extremes of age and those of too pronounced mental abnormality. The best subjects are the highly intelligent, highly sensitive people with good control of their mental faculties, while those of lesser endowments are more difficult and less satisfactory to work with and are limited in their performance.

What hypnosis actually is can be explained as yet only in descriptive terms. Thus it may be defined as an artificially enhanced state of suggestibility resembling sleep wherein there appears to be a normal, time-limited, and stimulus-limited dissociation of the "conscious" from the "subconscious" elements of the psyche. This dissociation is manifested by a quiescence of the "consciousness" simulating normal sleep and a delegation of the subjective control of the individual functions, ordinarily conscious, to the "subconsciousness." But any understanding of hypnosis beyond the descriptive phase is purely speculative.

## **THE PHENOMENA OF HYPNOTISM**

The phenomena of hypnotism vary in degree and variety with every subject, depending, of course, upon the innate endowments of the person. Furthermore, all phenomena do not necessarily occur in every subject, but manifest themselves only as a rule, some subjects failing to show this or that particular characteristic.

First of all, hypnosis is a result of cooperation. Without full cooperation between the subject and hypnotist there can be no hypnotism. Unwillingness to be hypnotized, admitted or concealed, signifies the failure of the essential cooperation, and consequently a trance does not and cannot occur. This necessity for cooperation constitutes a further

indication of the improbability of inflicting harm upon the subject and also exposes the fallacy of the belief that one can be hypnotized surreptitiously.

As the subject goes into a hypnotic sleep, the field of consciousness narrows and external stimuli, except those given by the hypnotist, lose their significance. Ultimately the subject loses contact with the external world except for the operator. Essentially, the "consciousness" is in a state of sleep, while the "subconsciousness" is left in control and in rapport with the hypnotist. This rapport, which constitutes a fixed phenomenon of hypnotic trances, may be defined as a state of harmony between the subject and hypnotist, with a dependence of the former upon the latter for motivating and guiding stimuli, and is somewhat similar to the "transference" of the psychoanalytic situation. It enables the hypnotist to remain in full contact with the subject while to the rest of the world the hypnotized person remains an unresponsive object. This rapport may be transferred by the command of the operator to any designated person, and subjects who distrust the hypnotic state but permit hypnosis may spontaneously retain rapport with anybody they wish as they go into the trance.

Another phenomenon is the marked suggestibility occurring in the trance. Any suggestion not objectionable to the subject will be accepted and acted upon. Thus he will become paralyzed, anaesthetic, deaf, blind, hallucinated in all spheres, accept as the truth any variety of suggestions, and act upon them provided they are not objectionable. If they are offensive, there is a failure of cooperation and the suggestions are without effect.

A fourth phenomenon which characteristically appears without direct suggestion is catalepsy, which resembles cerea flexibilitas. In this state the subject's arm may be lifted and it will remain fixed in any position. The subject appears to be unable to move the arm, nor does he seem to experience any sense of fatigue. Some experimental work done in this regard suggests that there is a definite lessening of the sense of fatigue, permitting the performance of work actually past the point of normal capacity (Williams, 1929; Nicholson, 1920).

A fifth feature of the trance is that of posthypnotic suggestion. While in the trance state subjects may be given a suggestion to be performed or acted upon at a designated time after awakening, and they spontaneously—as they think—respond in the designated fashion with no realization of why they do so. In this phenomenon lies the greatest therapeutic advantage of hypnosis, since thereby the subjects can be given suggestions to guide their later conduct.

A sixth characteristic of hypnosis is amnesia. The subject's recollection of events occurring during the trance is approximately inversely proportional to its depth. One who has been in a profound trance has a complete amnesia for all events, suggestions, and experiences occurring therein, even though he has walked down the street, talked to friends, and eaten a meal. However, this amnesia may not remain total, since the subject may at a later date recall everything spontaneously as if in a dream. But for practical purposes there is essentially an actual amnesia.

Still other manifestations, similar in nature, are automatic writing and crystal-gazing. The activity involved in these is perhaps one of the best "proofs" of the existence of a "subconscious mind." They afford a wide avenue of approach to experimental studies and to therapeutic and exploratory measures.

Finally, there can be induced in trances by means of posthypnotic suggestions a state of somnambulism wherein the subjects appear to be normally awake. They may perform all the routine duties of daily life or successfully cope with any chosen situation, but they do so in a trance state and upon awakening have no recollection of any events which occurred. In appearance and nature this somnambulistic state is an experimental equivalent to the states of dissociation in dual personalities met in psychiatric practice. It differs only in being benign, time-limited, and wholly dependent upon definite suggestions from the hypnotist.

## **APPLICATION OF HYPNOTISM**

Hypnosis has a definite value in the practice of medicine, which was shown very early in its history, and as medical men acquire a better understanding of psychology, its value will probably increase. In general practice the technique can be utilized to quiet and reassure the patient and to establish that desirable state of rapport between physician and patient connoted by "the bedside manner." In Europe, particularly in Germany and France, it has been used to some extent as a direct surgical aid in both major and minor procedures. In certain patients it can be used as a substitute for drugs in producing anaesthesia, and since the time of Esdaille it has been used repeatedly for this purpose. It has the advantage over anaesthetics of affording the patient peace of mind, a sense of security and confidence, and it has no afteraffects. However, even at the present day its application in the field of surgery should be limited properly to the minor field until the general medical practitioner as well as the laity have a better understanding of psychological manifestations. It has also been used successfully in obstetrics and undoubtedly would be used much more if there were not such a misapprehensive, fearful attitude toward it. A primary objection to its use by the medical man, remediable by proper study of the practice, is the difficulty experienced in inducing and maintaining trances. No hypnotists know for a certainty whether or not they are going to succeed with a particular subject at a given time or whether their technique for the occasion will be sufficient for the maintenance of the trance. But this is more fortunate than otherwise, since the therapeutic and medical application of hypnosis should not be taken lightly or left in the hands of the dilettante.

In the field of psychological medicine, however, hypnosis offers a unique approach to many mental problems and difficulties. Its value lies in the fact that it allows the physician to approach directly the subconsciousness of the person with its disturbing conflicts. It often serves as a gateway through his resistances and allows indirect approaches to many difficulties which otherwise could not be attacked. Further, induced states of dissociation can be established, exploratory measures developed, and vital information obtained which otherwise would be inaccessible both to the patient and to the therapist. Also of paramount importance is the fact that the hypnotized patient is in a

receptive state for psychotherapy. The difficulty involved in getting patients to accept therapeutic suggestions directly constitutes the greatest obstacle in psychotherapy. Hypnosis renders the person receptive. Indeed, as has been mentioned before, it is a state of enhanced suggestibility. Consequently, by means of hypnotism it is possible to implant therapeutic ideas upon the "subconsciousness" and to have them take effect when endless numbers of suggestions given in the waking state would be given no heed or even actively resisted. Thus the patient accepts hypnotic suggestions and acts upon them without conscious awareness and without building defense reactions. In so doing he allows them to become a valid part of his mental patterns, all the more so since fundamentally, if not immediately, he does desire aid against his conflicts. By this means patients can be given new mental equipment wherewith to deal with their difficulties, a new equipment which does not have to pass the protective scrutiny of their "consciousness." At the same time dissociated experiences and amnesic material are rendered available for reassociation and reorganization. Nevertheless, hypnosis is not to be looked upon as panacea nor is it to be discarded because it has definite limitations. On the contrary, it is a valuable addition to the medical armamentarium, most particularly to that of the psychiatrist.

Perhaps the most fertile and productive application of hypnotism is in the sphere of experimental psychology. More and more laboratories are becoming interested in the peculiar and significant problems which hypnosis renders available for study. This rapidly increasing interest in experimental hypnotism both in this country and abroad may be taken as an indication of a growing realization of the fruitfulness of hypnosis as a field of scientific research. It constitutes almost a virginal territory for psychological investigations, and it appears to offer a good approach to an understanding of many mental mechanisms which have hitherto defied comprehension.

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# Hypnosis: A General Review

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The history of hypnosis is as old as that of the human race. The most primitive of savages, both ancient and modern, were aware of this striking psychological manifestation, and it was utilized in the mystic rites of their medicine men to produce fear and to intensify belief in the supernatural and the occult. With this long historical past of supernaturalism and mysticism, coupled with its own startling, inexplicable, and bewildering phenomenology, it is not astonishing that the general public's attitude toward hypnosis has been and still is one of misunderstanding, antagonism, and actual fear, and that the first development of any scientific interest did not occur until the last half of the 18th century.

These first scientific beginnings in the study of hypnosis began with Anton Mesmer about 1775, from whose name has derived the term mesmerism still in current usage. Mesmer's use of hypnosis began with his discovery that selected types of medical patients responded satisfactorily to a stroking of their arms and ailing parts and suggestions of sleep. Mesmer attributed these therapeutic results to the transferring to the patients of a "quality" of "animal magnetism," and he developed the theory that animal magnetism was some peculiar cosmic fluid with healing properties. Despite Mesmer's excellent intuitive knowledge of clinical psychology, as evidenced by his elaborate clinic in which he employed colored lights, incense, music, and rich draperies to impress his patients and establish in them a receptive state of mind, he had no realization of the psychological nature of his therapy. Nevertheless, he treated successfully large numbers of patients on whom orthodox medical procedures had failed, but unfortunately his personality and the mystical character of his therapy served finally to bring him unjustly into disrepute. However, many physicians had visited his clinic during the height of its success and had learned unwittingly one of the first lessons in the then unknown art of psychotherapy—specifically, the importance of clinical psychology.

Since Mesmer there has been a succession of outstanding men who became interested in hypnosis and utilized it successfully in medical practice, giving it an increasingly more scientific foundation and validity. Elliotson, the first man in England to use the stethoscope, became interested in hypnosis about 1817, employed it extensively, and left excellent records of its therapeutic efficacy in selected cases. Esdaille, stimulated by Elliotson's case reports, became an ardent advocate of mesmerism, as it was then called, and actually succeeded in interesting the British government in building a hospital in India, where he used it extensively on all types of medical patients, leaving many excellent records of major and minor surgery performed under hypnotic anesthesia.

The initiation of a psychological understanding of the phenomenon began in 1841 with James Braid, at first an opponent and then later a most ardent investigator and supporter. It was he who invented the term *hypnosis*, recognized the psychological nature of hypnotic sleep, and described many of its manifestations, devising methods whereby to test their validity.

Since Braid there has been a constantly increasing number of clinicians first and psychologists later, among them many outstanding scientists, who have contributed greatly to an establishment of its scientific validity and opened it as a field of scientific investigation and therapeutic endeavor. The result now is that during the past 20 years there has been a progressively rapid increase in the amount of attention given to hypnosis as a problem of significant scientific interest by the medical profession, particularly psychiatrists, and by psychologists in university laboratories.

Unfortunately, particularly among the psychologists, there is still a tendency to develop research along the outmoded concepts and techniques of the 19th century. Thus, in a recent paper by a psychologist, the statement was made that the experimental technique was based entirely on Braid's original methods, and in another paper the declaration was that Forel's technique and criteria of fifty years ago had been used implicitly. Thus, while interest in hypnosis as a scientific problem has advanced, it is still in its infancy and needs development in terms of present-day understandings and concepts of personality and interpersonal relationships.

General questions always arising when hypnosis is mentioned concern its possible detrimental effects upon the hypnotic subject, the possible antisocial use of hypnosis, the character of the relationship between the hypnotist and the subject, the controllability of the hypnotic state, and the relationship of hypnotic sleep to physiological sleep.

To all of these questions one may make a comprehensive reply by stating simply that the hypnotic state is essentially a psychological phenomenon, unrelated to physiological sleep, and dependent entirely upon full cooperation between hypnotist and subject; neither is it injurious or detrimental to the subject in any way, nor can it be used for antisocial or criminal purposes. Each of these statements is based upon extensive, carefully controlled experimental investigations too numerous to cite, and conducted by many investigators. References, however, will be listed at the conclusion of this paper.

The general mistaken belief is that hypnotists exercise some remarkable power over their subjects, that hypnosis is a matter of dominance and subservience, of strong mind over weak will, and that hence all manner of undesirable results may obtain. Actually, of course, hypnosis depends upon full cooperation between hypnotist and subject, and without willing cooperation there can be no hypnosis. Furthermore, the hypnotic subject can be both hypnotist and subject, and more than one hypnotist has been hypnotized in turn by his own subjects to further the development of experimental work. Because of the absolute need for cooperation, subjects cannot be hypnotized against their will or without their knowledge, nor can subjects be kept in a trance without their cooperation. Nor can cooperative subjects be left in a trance an unreasonable length of time without their full

understanding and cooperation. In brief, hypnosis and every use made of the trance state necessarily depends upon full and ready cooperation with adequate and direct understanding on the part of the subject of what is desired.

Another fact of importance is that there can occur no detrimental effects from repeated trances, even over a period of years. This fact has been confirmed by the experience of hypnotists who have been interested in this possibility and by the experience of subjects who have been hypnotized hundreds and even thousands of times. In addition, when one considers the difficulty in producing wanted therapeutic changes in the personality by hypnosis, the possibility of effecting unwanted changes becomes remote and most unlikely.

The best hypnotic subjects are normal people of superior intelligence, and any really cooperative person can be hypnotized. Maladjusted, hysterical, feeble-minded, or psychotic persons are usually difficult to hypnotize, although there are many exceptions. For this reason hypnosis as a therapeutic measure is often difficult to apply despite full cooperation.

Concerning the technique of the induction of hypnotic trances, this is a relatively simple matter requiring primarily time, patience, and careful attention to and consideration for the subjects, their personalities, and their emotional attitudes and reactions. Properly, there is no set form or pattern to follow, just as there is no set form for a good bedside manner. One needs the respect, confidence, and trust of a subject, and then one suggests fatigue, a desire for sleep and rest, an increasing feeling of sleep, and finally a deep sound restful sleep. These suggestions are given repetitiously, with gradual progression from one to the next, always with careful reassurance of the subjects as they make response to them. The making of passes, the use of crystal balls, the staring into the subject's eyes, and various other mystical procedures belong to vaudeville or ancient history. One simply, persuasively, and patiently suggests sleep of a restful character until the subject does sleep, and then the subject is instructed to remain asleep until all reasonable purposes are accomplished. There should be no forcing or rushing of subjects, and every effort should be made to enable the subjects to appreciate any physical feeling they have suggestive of sleep. This simple technique can be learned by anyone, and anybody who has been hypnotized can employ it to hypnotize others, given cooperation and the patience to make use of it. As for awakening the subject, one can suggest an arousal directly, or give the subject suggestions to the effect that he is slowly and progressively awakening, repeating these suggestions until the subject is fully awake.

Once the trance state has been induced, there will become manifest various general phenomena characteristic of hypnosis, though not all are necessarily manifested by each individual subject. Foremost is the condition termed *rapport*, in which the hypnotic subjects respond only to the hypnotist. In the deep trance they are seemingly incapable of hearing or seeing anything unless so instructed by the hypnotist. However, this rapport may be transferred to others by appropriate suggestions by the hypnotist.

A second phenomenon is *catalepsy*. As a result of the hypnosis, there develops in the subjects an increase in muscular tonus so that there seems to be the same condition as exists in the stuporous catatonic patient manifesting *flexibilitas cerea*. Thus, the subject's hand, raised up in the air by the hypnotist, is held in that position apparently without fatigue until the hypnotist either puts it down or instructs the subject to lower it.

*Amnesia* constitutes another phenomenon of interest. Particularly after a deep trance the subject tends to have a profound amnesia for everything that occurred in the trance situation. This amnesia is subject to control, since the hypnotist can suggest the recovery of the memory of some or all items of the trance experience, or the subject may deliberately set himself the task of remembering everything. This phenomenon is most inconstant and uncertain, depends upon many individualistic and situational factors. In an experimental procedure the amnesia can be demonstrated to be as resistant to all nonhypnotic forces and as profound as amnesias developing pathologically.

*Suggestibility* is, of course, a primary feature of hypnosis, and is necessarily present. However, there is always a need, if serious and satisfactory purposes are to be achieved, to give suggestions in accord with the subject's understandings and desires, although in the type of hypnosis practiced on the vaudeville stage, ridiculous and undignified suggestions can be given. In the experimental psychological laboratory any number of behavioral responses can be suggested and subjected to study, such as suggestions of amnesia, recovery of memories, hallucinations, delusions, anesthesias, deafness, blindness, identifications, disorientation, etc. In the medical situation suggestions relating to the problem in hand can be given, such as the suggestion to recall a forgotten troublesome traumatic life experience, or the suggestion to avoid or to meet adequately some difficult problem.

However, regardless of the suggestibility of the subject, there is frequently a primary need to give suggestions indirectly rather than directly and dogmatically as if hypnotic suggestions were miraculous in effect.

Another common phenomenon is the capacity for visual hallucinations often described as "crystal-gazing." Essentially, this is the result of suggestions to the effect that the subject visualize various scenes and memories. This phenomenon is of great significance in investigative and experimental work upon legitimate psychological and medical problems. The ability, called forth by hypnotic suggestion, to reconstruct a visual image of a past and even forgotten experience is often of great service in psychological research and in psychotherapeutic procedures.

*Automatic writing*, long known but mystically regarded, is often easily elicited in the hypnotic state. It is essentially the act of writing without any awareness of the fact. Such writing is comparable in its processes to the unwitting mouthing and chewing the absorbed mother does when she spoon-feeds her baby. This automatic writing can be elicited without hypnosis, during hypnosis, and after hypnosis, and the context of the writing represents usually material of which the subjects are not consciously aware and which they often reject as not theirs, or as meaningless to them. In the psychological

laboratory or in the psychotherapeutic situation such automatic writing is of great value in the study or analysis of behavior and in the eliciting of important but otherwise unavailable information.

*Posthypnotic suggestion*, or the giving of suggestions to the hypnotized subjects to be acted upon at some later time when they are awake, constitutes another most interesting phenomenon. By this measure the hypnotic subject's behavior can be directed and controlled subsequent to the trance state, but only to a reasonable and acceptable degree. Thus the subjects may be told to perform a certain act at a given time in the future, and at that time they do as instructed, usually without awareness that they are doing so, or, if they are aware of their conduct, without any understanding of why they are so doing. Rather they think they are acting spontaneously since there is an amnesia for the posthypnotic instructions. In this way effective therapeutic suggestions can often be given.

The scientific applications of hypnosis are as yet only in the developmental stage. The persistence of unsound mystical beliefs and mistaken fears about hypnosis, now fortunately being discarded rapidly, have hampered and delayed its scientific growth. Also, much of the serious study made of hypnotic phenomena has been based upon concepts of hypnosis developed long before present-day understandings of dynamic psychology and psychiatry. Furthermore, many of the efforts made to study hypnosis scientifically in psychological laboratories have omitted all clinical personality considerations relating to the hypnotic subject as a person and have attempted unfortunately to deal with hypnotic manifestations as didactic academic items unconnected with a human personality. With the present rapid increase of recognition by psychologists of dynamic and personality factors and forces, there is developing a new and more fruitful trend in the study of hypnotic behavior, and the psychologists are now beginning to discard the old belief that hypnosis transforms a person into some strange, passive, dominated new creature. Instead they are beginning to realize that hypnosis can be used and should be used to elicit the natural and innate behavior and reactions of the subject, and that through such a measure human behavior can be studied in a controlled scientific manner.

Primarily, the greatest field of application for hypnosis is in the study and analysis of human behavior and disturbances in behavior. By means of the hypnotic trance it becomes possible to suggest to the subject any chosen form of behavior and response and thereby have literally a laboratory in which to synthesize and analyze any desired pattern of behavior. For example, the problem of amnesia can be treated as a laboratory investigation by creating, removing, and reestablishing an amnesia and slowly and systematically studying the psychological processes and mechanisms involved in such mental processes. Similarly, one can through hypnosis duplicate in a subject the symptomatic manifestations of personality disturbances and emotional stresses and have an opportunity to study such problems in laboratory form in a manner similar to the laboratory study of medical problems and procedures before application is made to an actual patient. Instead of speculating vaguely and attempting to deduce uncertainly the consequences of a patient's complexes and conflicts, necessarily of unknown character,

one can build up in a hypnotic subject a complex or conflict of known character and then have the direct opportunity of studying its results and consequences upon the subject with a view to determining the psychological sequences and interrelationships of the various manifestations and their significances to the personality.

The usefulness of hypnosis to medicine lies in two fields of application, that of research and that of psychotherapy. In relation to both fields its usefulness relates primarily to behavior problems, emotional disturbances, minor forms of psychopathology, and the neurotic or psychoneurotic illnesses which confront the general practitioner on every hand. However, its applications are greatly restricted, aside from the need for special laboratory situations for research and selected types of patients for psychotherapy, by the general public's misapprehensions concerning hypnosis, the irrational fears entertained about it, and the primary need for unlimited time and effort if effective results are to be obtained. Too often, in both fields of application, unsatisfactory results are obtained because of the tendency to regard hypnosis as a miracle producer and to substitute dogmatic emphatic hypnotic suggestion for a laborious, time-taking, systematic procedure of experimental investigation or of psycho-therapeutic reeducation. It is not a miracle worker, even though its results sometimes seem to be miraculous. Rather, it is an effective measure by which one can slowly, carefully, and thoroughly elicit, as a result of careful suggestions, forms of behavior, emotional reactions, insights, and understandings which would be impossible or nearly so in the ordinary waking state in which the subject's attention to a chosen field cannot be so completely secured and rigidly fixed as it can be in hypnosis.

Unfortunately for the development of adequate research in medical applications of hypnosis, most of such investigators are psychologists untrained in clinical medical and psychiatric aspects of personality disorders. However, as psychologists become increasingly aware of the personality implications of hypnotic research, such problems as amnesia will cease to be studied entirely in terms of statistical evaluations of nonsense syllables learned and forgotten and approached more frequently in terms dynamic behavior reactions peculiar to the personality of the hypnotic subject, who in turn will be recognized as a human being and not treated, as is the tendency of psychologists today, as a passively responsive laboratory instrument.

As for direct psychotherapeutic use of hypnosis, aside from the problems imposed by public mistrust and the need to select suitable patients, there is also the problem of avoiding the too common errors in psychotherapy of forcing the suggestions upon the subject. Rather than hypnotically treating patients suffering from a phobia for doorknobs by telling them in the trance to forget their phobia, to overcome it, to realize its foolishness, one tries instead by hypnosis to elicit indirectly and adequately the story of the genesis of that phobia and to build up in these patients anew their own forgotten and repressed pattern of normal behavior toward doorknobs. One does not try to force upon the patient a new pattern of normal doorknob behavior, but rather to reestablish the old, unused, and forgotten pattern of behavior the patient had previous to the development of his phobia. One may temporarily relieve symptoms, but medicine is interested in a cure

by complete removal and not in symptomatic relief. But such methods are slow and laborious, hence only those wishing to spend adequate time and effort should try them.

Recent clinical work (Bass, 1931; Beck, 1936; Bramwell, 1921; Brickner & Kubie, 1936; Erickson, 1932, 1933, 1934, 1935, 1937a, 1937b, 1938, 1939a, 1939b, 1939c; Erickson & Erickson, 1938; Erickson & Kubie, 1930, 1939; Huston et al, 1934; Luria, 1932; Platonov, 1933; Schilder & Kauders, 1927) has shown the possibilities and fruitfulness of hypnosis in approaching the problems of personality disturbances and psychoneurotic illnesses, and it is this field of medicine in which hypnosis can contribute greatly—and unquestionably will—as increasingly adequate recognition is given to the value of hypnosis.

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# Hypnotism

Milton H. Erickson

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“Hypnotism” and “hypnosis” are the terms applied to a unique, complex form of unusual but normal behavior which can probably be induced in every normal person under suitable conditions and also in persons suffering from many types of abnormality. It is primarily a special psychological state with certain physiological attributes, resembling sleep only superficially, and characterized by a functioning of the individual at a level of awareness other than the ordinary state, a level of awareness termed, for convenience in conceptualization, unconscious or subconscious awareness.

When hypnotized, or in the hypnotic trance, the subject can think, act, and behave as adequately as, and often better than, he can in the ordinary state of psychological awareness, quite possibly because of the intensity of his attention to his task and his freedom from distraction.

He is not, as is commonly believed, without willpower or under the will of the hypnotist. Instead, the relationship between the hypnotist and subject is one of interpersonal cooperation, based upon mutually acceptable and reasonable considerations. Hence, the subject cannot be forced to do things against his will, but rather he can be aided in achieving desired goals. However, frequent failures in hypnotic therapy of patients disclose limitations of hypnosis in accomplishing even desired goals, and the more extensive and reliably controlled experimental studies discredit the possibility of utilizing hypnosis for antisocial purposes.

The history of hypnosis is as ancient as that of sorcery, magic and medicine, of the armamentarium of which practices it formed a part. Its scientific history began in the latter part of the 18th century with Franz A. Mesmer, a Viennese physician who used it in the treatment of psychiatric patients. However, because of his mistaken belief that it was an occult force, which he termed “animal magnetism,” that flowed through the hypnotist to the subject, he was soon discredited; but mesmerism, as it was named after him, continued to interest medical men. Extensive use was made of it by outstanding clinicians without any real recognition of its nature until the middle of the 19th century, when James Braid, an English physician, became interested, recognized its psychological nature, studied its phenomena, and coined the terms *hypnotism* and *hypnosis* to name it. Thereafter many scientifically trained men worked on the problem, but only after World War I was much significant progress made. World War II gave added impetus to the study of hypnosis, greatly extended its recognition and use, and freed it from many of the superstitions, fears, and taboos that had hampered its scientific acceptance and investigation. However, because of its inexplicable character and the fascinating, startling

nature of its phenomena, it remained subject to exploitation by charlatans and misconceptions by well-intentioned but insufficiently trained and experienced experimenters.

## **HYPNOTIC TECHNIQUE**

Popular beliefs still ascribe much superstitious significance to ritualistic magical devices such as stroking of the body, the use of "hypnotic crystals," the "eagle eye," and "willpower." Actually the important consideration in inducing hypnosis is a willing, cooperative, relaxed subject to whom a trusted hypnotist can persuasively and repetitiously suggest that he will become tired and sleepy, that his eyes will close, that he will lose progressively his interest in external events and become more and more completely absorbed in a feeling of being in a state of sleep in which he can function at a level of unconscious awareness. The length of time required to induce a trance differs greatly with subjects, and the time spent should be in reasonable accord with the importance of the hypnotic work. Thus, for an exhibitionistically inclined subject on the vaudeville stage, a few minutes may suffice, while hours might be required for a scientifically oriented study or for hypnotic therapy.

Another essential consideration in the technique of investigative or therapeutic work is the utilization of the subject's own patterns of response and capacities rather than an attempt to force upon the subject by suggestion the hypnotist's limited understanding of how and what the subject should do. The failures in hypnotic therapy and experimental work often derive from dealing with the subject as an automaton expected to execute commands in accord with the hypnotist's understanding, to the exclusion of a recognition of the subject as a personality with individual patterns of response and behavior.

## **HYPNOTIC PHENOMENA**

Hypnotic phenomena will differ from one subject to another and from one trance to the next, depending upon the depth of the trance, since hypnosis is a phenomenon of degrees ranging from light to profound trance states. There are, however, certain basic manifestations, the extent and clarity of which may vary in accord with circumstances. Foremost among these is rapport, which signifies the limitation of the subject's awareness to what is included in the hypnotic situation. Usually the subject responds spontaneously only to stimuli from the hypnotist who may limit or direct the subject's state of awareness as he wishes. However, in response to personality needs or the demands of the situation, the subject may remain in contact with part of or even all the circumstances surrounding the trance. Rapport can then be discovered experimentally by investigating the rigidity of the subject's responsive patterns to the entire situation.

Catalepsy is another manifestation, properly tested only indirectly since direct tests often serve to effect a suggesting of it. This is a peculiar state of muscle tonus and balance which permits the subject to maintain postures and positions for unusually long periods of time without appreciable fatigue responses.

Suggestibility, or a state of remarkable receptiveness to suggestions, is a striking characteristic. However, the suggestions must be acceptable to the subject, and rejection of them can be based upon whims as easily as upon sound reasons. By the acceptance of suggestions, and acting upon them, subjects can become deaf, dumb, blind, hallucinated, disoriented, or anaesthetized, or they can manifest any type of behavior regarded by them as reasonable and desirable in the given situation. The process is essentially the vivification of memories, ideas, and understandings so effectively that they are subjectively experienced as external events rather than as internal processes, with a consequent endowment of them as reality experiences. This is the feature of hypnosis most often abused, since most persons will allow themselves to be imposed upon to provide entertainment even when not hypnotized and the same general tendency exists in the hypnotic subject.

A most fascinating manifestation is that of posthypnotic behavior. By this is meant the execution, at some later time, of instructions and suggestions given during a trance and intended to become a part of the pattern of some later activity. Thus, for example, subjects may be instructed to read a certain chapter in a chosen book at a specified later time—hours, days, months, and even years later—and at that time they perform the act without really understanding consciously why they do so. In this type of phenomenon lies probably the greatest medical and experimental value of hypnosis, since it permits a direction and a guidance of behavior, but only in terms of the patterns of response belonging to the individual.

The forgetting of things or the development of amnesias for minor memories is an everyday occurrence. In hypnosis, however, there occurs an amnesia of an extensive character which can be induced at will or become manifest spontaneously. The amnesia usually includes all the events of the trance state, but it can be altered by instruction to include any desired experience'. It is a reversible phenomenon, may be induced or abolished as desired by the hypnotist and also by the subject should there arise adequate personal motivation to alter a state of hypnotic amnesia. It is a useful tool both in therapy and in experimental work.

Conversely, hyperamnesia, an ability to remember transcending the everyday ability to remember the past, is found. Thus, in the trance state, the subject can remember vividly long-forgotten, even deeply repressed experiences, recount them fully and still have a complete amnesia for them when aroused from the trance state. This ability is remarkably useful in both therapeutic and experimental work, since it permits the recovery of memories otherwise unavailable, and hence the exploration of the experiential past of the subject.

A phenomenon of the profound trance of extreme interest is somnambulism. The subjects, seemingly awake in a state of ordinary awareness, behave, within reasonable limitations, as if they were not hypnotized, but actually they are in deep trance and capable of manifesting any desired hypnotic behavior within their personal capabilities. Experience and training are often required even to recognize the somnambulistic state,

and even more experience is required to induce it and to utilize it scientifically, particularly in therapy as well as in experimental work.

Regression, or a return to earlier and simpler patterns of behavior, characterizes all trances and can be utilized and enhanced to a remarkable degree. In the ordinary trance there tends to occur a significant literalness of a childlike character in the subject's understandings, the handwriting and other motor activities are childlike, and emotional attitudes reflect those of an earlier age level.

Experienced utilization of this phenomenon can result in the development of an effective amnesia for all experiences and learning subsequent to a chosen age level and the revivification of the actual patterns of behavior, responses, and understandings of the selected age level. Highly significant therapeutic and experimental work has been done in this regard, especially when regression characterized by revivification of past patterns of behavior has been employed rather than a less satisfactory procedure wherein the subject is permitted to limit his regression to his current understandings of what probably constituted his past.

There are two other phenomena which are of particular interest but which are essentially modifications and elaborations of those manifestations already described. One is crystal-gazing, which does not necessarily require an actual crystal and which consists of a clear vivid visualization of memories and ideas as if they were current reality experiences. The other is automatic writing, in which the subjects write without conscious volition and often without conscious knowledge of the fact that they are writing. Both these phenomena are of great value in experimental and therapeutic work, since they provide unusually effective methods for the recovery of the experiential past and for an integrative understanding of the self.

Autohypnosis is entirely possible, but it is a sterile procedure, despite various overenthusiastic claims. Even among the Balinese, who practice autohypnosis extensively, it is a social manifestation limited to established traditional and ritualistic activities. It can, however, be of value when practiced under the supervision of an experienced hypnotist who can guide the activities of the autohypnotic subject.

## **RELATED QUESTIONS**

Certain questions are always asked by the general public about hypnosis. Among these is the possibility of employing hypnosis to commit crimes. The best scientific studies deny this possibility, therapeutic experience discredits it, and the only positive evidence is that investigators have induced subjects to pretend to commit crimes, but a pretense is not a reality. Experimenters have also been able to induce subjects to perform minor antisocial acts in a limited experimental situation, but waking subjects will do the same; hence, the findings cannot be regarded as of hypnotic origin only.

Concerning harmful effects, no well-experienced hypnotist has ever reported any. Occasionally, an amateur may hypnotize a subject suffering from a personality disorder

and elicit hysterical behavior, but this derives from the personality problem and not from hypnosis.

Can people be hypnotized against their will or without their knowledge? As previously stated, hypnosis always requires cooperation on the part of the subject, but sometimes this cooperativeness is well concealed behind a superficial attitude of unwillingness, with a consequent distortion of the true situation. Additionally, a trance state cannot be maintained without the subject's awareness of the fact, or full cooperation and genuine acceptance of the situation. Then, too, there is the age-old question about the possibility of not being able to arouse the hypnotic subject from the trance state. This actually cannot occur. Occasionally, the amateur may have difficulty in arousing the subject who insists upon remaining in a trance, but this is easily corrected with a little experience in handling subjects.

In any scientific field as undeveloped as hypnosis, no definitive statement can be made of its values. However, the history of its development warrants the definite assertion that it is a significant and valuable instrument in the study of human behavior and in the therapy of selected types of personality disorders.

# **The Basis of Hypnosis: Panel Discussion on Hypnosis**

Milton H. Erickson

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In opening the discussion on hypnosis I would like to give you some background for understanding its usefulness in the general practice of medicine. Perhaps the best way to approach the subject would be through that phase of medicine which constitutes a good share of your practice the role of psychological forces in human behavior. An illuminating specific example is that of the combat veteran who jumped down the stairway in his hurry to get home from the college he was attending and fractured his ankle badly. He walked home but came back three weeks later for physical examination because his foot was so swollen and because it made funny grating noises when he walked. Examination showed a stocking anesthesia, not only superficially but deep. The X-ray films showed a comminuted fracture of every bone in his ankle.

## **INFLUENCE OF PSYCHOLOGICAL FORCES**

How did this man manage to do a thing like that, without any help or any instruction whatever? It seems incredible, but all of you in the practice of medicine discover that patients can make use of their psychological forces to rule out, govern, or control physiological phenomena.

Another instance of psychological force influencing physiological behavior concerns the businessman whose firm is operating well. He is making a profit; he is successful, but he worries. He has imaginary worries. He can think of dozens of things which can happen to him or his firm. What does he do with these worries? He punctures holes in his duodenal or gastric mucosa.

There is the housewife who worries about various things and develops severe headache. There is no question about the severity of her headache; it is very real, although its cause may be quite imaginary. One of the most striking examples of this sort of thing is a 15-year-old boy I once saw who was put in a boarding school. He resented it terribly, and he had a very strong feeling of rejection. What did he do about it? He developed ulcerative colitis, an expression of his resentment. These psychological forces are tremendously important.

## **EXPERIENTIAL LEARNING**

The next thing I wish to call to your attention is the matter of the experiential learning that we all absorb during a lifetime of experiences. Little children practice walking and getting up and sitting down, lying down, rolling over, using every muscle and action of their extremities and torso. They get acquainted with the various parts of their bodies and learn the full extent of their capabilities. They learn these things so thoroughly that years later, when they are full-grown adults and have forgotten the process through which they learned their actions they will respond promptly when a mosquito lands on any part of their body. Say that the mosquito lands on a shoulder. Without any thought, without any analysis, without recognition that it is on the right shoulder, and even if the left hand happens to be in the pocket, a person can, with great speed and accuracy, withdraw the left hand from the pocket and swat the mosquito at the instant of its biting. How did the body learn this accuracy of movement?

Little children learn first to eat with their fingers. Later they take a spoon. At first they bite the spoon and probably scatter food over themselves and everything around them. Eventually they learn to measure all movements so that they can put the spoon in the mouth.

Children learn to twist their faces, to twist their shoulders, to wriggle their feet. When they first try to write script, they are apt to twist their bodies and wriggle their feet. Gradually they learn to do it with their right hand. You all once went through this phase, and if at that time someone had been curious, they could have discovered that, without one bit of practice, you could have written with your left hand, without going through all of the original learning practice. In fact, one who never has had any such training can with a pencil held in the toes, write just as legibly as any doctor can. This is true because of the transference of learning. Human beings, once they have learned anything, transfer this learning to the forces that govern their bodies.

## **UTILIZING THE UNCONSCIOUS MIND**

In hypnosis we utilize the unconscious mind. What do I mean by the unconscious mind? I mean the back of the mind, the reservoir of learning. The unconscious mind constitutes a storehouse.

You can be in physiological sleep, lying on your back, and you can dream that, instead of lying on your back, you are walking through the house or that you are talking to a friend working in the yard. You can smell the flowers, listen to the birds, feel the breeze, and enjoy the conversation with your friend. Everything is utterly perfect and real because your unconscious mind allows this elaboration in a dream. The real truth is that you are in bed between the sheets. During the dream you may sit down in the garden chair. At that particular moment you probably turned over and rested your back against the mattress. That was the time when in your dream you leaned against the back of the garden chair. The great secret here is that the unconscious mind can deal with the reality of the bed mattress and blend with it the reality of eye memories or mental images of any kind.

What one does is primarily to get the patient interested in ideas, memories, understanding, or a concept of any kind. As the patients deal with these they can develop understanding. I will give a demonstration. I will hold up this notepad and tell you to keep looking at it. Actually, all you receive from this particular object is a visual image. You keep looking at it, but you will notice that I put it on the table and you can conceive seeing it right there. However, you still have the visual image and visual memory in your mind. You could project the visual image in the air exactly where it was—where the actual object was before. This is exactly what you do in your dream. You project memories of objects and ideas so that you can talk to a friend in the garden.

Understanding of this projection of memories is important to the understanding of hypnosis. This particular phenomenon can be defined as a state of ordinary awareness, but it is devoted primarily to the consideration of ideas in themselves, with full attentiveness to the idea. This differs from our conscious attention, which is directed only to reality. As I speak to you, you are aware that you are sitting in this room and listening to me, that I am holding a microphone, that there are lights above you, that there is someone to the left and someone to the right of you, someone in front of you, and someone behind you. All these observations are relevant to listening to me in the ordinary state of conscious awareness. You tend to orient to reality and to give your attention in a diffuse way.

In the state of hypnosis, as in the state of conscious awareness, you give your attention but you give your attention to selected ideas. Your mind is open to these ideas. For example, if I were to ask anyone of you what you wore on your third birthday, you would look at me and say: "That was a long time ago. How could I possibly remember it? It really is not important, and why should I remember it?" You would reject the task of recalling because of attendant circumstances and your appraisal of the difficulty. In the hypnotic state the subject is susceptible to ideas and accepts them. Under hypnosis you would accept the idea that what you wore on your third birthday is simply part of the birthday. You did have a third birthday, which is an historic fact. Furthermore, you did wear clothes, and furthermore, on that third birthday there was a momentous combination of one-time experiences. In the trance state you could start thinking in terms of those realities. Hypnosis, therefore, is essentially a state of receptiveness to ideas and the appraisal of their inherent values and significance. The subject may either accept or reject the idea but can respond to the idea in terms of experiential learning.

## **TRANCE INDUCTION**

Concerning the phenomenon of hypnosis I should mention the matter of trance induction. There are many ways of inducing a trance. What you do is to ask patients primarily to give their attention to one particular idea. You get them to center their attention on their own experiential learning. You could suggest levitation to them and could have them lift a hand higher and higher. You could have them close their eyes bit by bit. Either of these things tends to direct their attention to processes which are taking place within them. Thus you can induce a trance by directing patients' attention to processes, to

memories, to ideas, to concepts that belong to them. All you do is direct the patients' attention to those processes within themselves.

There are different levels of trance behavior. These vary with the individual patient and vary with the need of the situation. A light trance, a medium trance, or a deep trance may be induced. You must vary the trance according to the patient's needs.

Another thing I should mention is the matter of hypnotizability. Who is hypnotizable? Any normal person is hypnotizable but not necessarily by you or by me or by Dr. Bryant or by Dr. Hershman. Every patient has the right to go into a trance in accord with his or her own choice of the operator. One hundred percent of normal people are hypnotizable. It does not necessarily follow that 100 percent are hypnotizable by any one individual. A mentally ill patient can be hypnotized, but it is difficult. The feeble-minded person can be hypnotized, but it is difficult. Various types of neurotics can be hypnotized, but again, some of them are difficult subjects. It depends on the situation and on the motivation of the patient. The personal relationship established between the operator and the subject is of great importance. When you hypnotize patients you are asking them to pay attention to ideas or to any parts of reality pertinent to the situation. The patients then narrow their attention down to the task at hand and give their attention to you.

### **INCREASED MUSCLE TONICITY**

One of the first phenomena is that of increased muscle tonicity. A result of this factor is that you can lift the arm and have it stay in a position indefinitely. In a sense this is a psychological laboratory activity, but it is sometimes very useful in the practice of medicine. Sometimes you want patients to lie quietly in bed because it aids their recovery. I recall reading about a burn case in England where the patient as a result of hypnosis stayed in the same position for three weeks. He did this at his own voluntary muscular level so that a pedicle skin graft could take. It is a very useful thing to be able to produce this muscle tonicity for three weeks so that a patient can stay in an awkward position.

### **ALTERED SENSE OF TIME**

Another thing is the matter of a sense of time. Under hypnosis the patient is paying attention to ideas and memories in fields of attitude and understanding. Time has a different subjective value. For example, all of you know that five minutes of acute pain seem like an endless period, and yet an afternoon spent visiting with friends seems very, very short. Subjective time is a tremendously important thing, and you want your patients to experience pain as briefly as possible. You want them to experience pleasure for long periods of time. Cancer patients, for example, suffering acute pain should have that pain cut down in subjective time values, and they should have a period free from pain greatly exaggerated subjectively. You cannot alter the clock, but you can alter the way the patient feels about it. There are many things you can do in altering patients' feelings toward themselves so far as pain is concerned. Sitting in a dental chair, for instance, can be made to seem only about one minute when actually it was an hour.

## **IDEOMOTOR ACTIVITY**

Another thing is the matter of ideomotor activity. All of you have been in the back seat of a car when you thought the driver should put on the brake, and you have automatically tried to put on the brake with him. You have released your foot from the floor only to start shoving it down again.

Have you ever tried to feed a baby and opened your own mouth? You opened your mouth when you thought the baby would open his mouth. This was the idea of motor activity, and you attempted to carry it out. I have had polio and I know something about it. When you put into a trance patients who have recovered from polio but lost a tremendous amount of muscular movement, you ask them to remember what the movements were like. By this means you give them the idea of what the movement is.

You can do a great deal of good in the matter of correction of polio handicaps in this way.

## **IDEOSENSORY BEHAVIOR**

There are many fields in which to utilize hypnosis. Ideosensory behavior is another phenomenon. By this I mean the idea of sensory experience, the idea of sensation. Perhaps one of the best illustrations of this is the fact that after a dental appointment you may scratch your face out in thin air well away from the actual skin of your face. You do it that way because it does not feel right—it feels different.

What do you want patients to do if they have suffered a serious injury of the head? You want them to have numbness of the head or you want them to have anesthesia or you want them to have analgesia. You give them the idea of a particular sensory state because, you see, all hypnotic phenomena derive from learnings that you experience in everyday life. Did you ever go to a suspense movie with a severe headache or a severely painful corn, and did you get interested in the movie until you forgot all about the pain?

Right now, what about the anesthesia you have? You have anesthesia of various parts of your body, and you use it every day. You have forgotten the shoes on your feet, the glasses on your face, the collar on your neck. You recognize them very promptly when you pay attention to them. By inducing sensory changes in the patient you bring about these changes by utilizing the experiential learning of their everyday life.

## **POSTHYPNOTIC SUGGESTION**

Another phenomenon is the matter of posthypnotic suggestion. By this I mean a suggestion given here, now, today, to be carried out at some future time. The anesthesiologist may see patients the night before the operation, induce a trance, and suggest to the patients that they will get through the operation very nicely. He can relieve the fear and anxiety, and correct the insomnia that the patients may have. The next day the patients undergo the operation, and the anesthesiologist has already suggested that

they will recover from the anesthesia. "I would like you to have good physiologic sleep. I would like to have you feel very comfortable. I would like to have you make a very nice recovery postoperatively." Your patient can accept that suggestion and have a good postoperative recovery.

You can use posthypnotic suggestion in another way. Suppose you have a patient who is going to have a baby. You teach her to go deeply into a trance and you find out what kind of delivery she wants to have. Does she want to participate in it? Does she want to have a sense of feeling with absence of pain? Just how does she want it? Would she want to see the baby immediately? Would she like to be discussing things in a friendly fashion with her obstetrician? You have her in a trance today. Six months later she will carry out your posthypnotic suggestions and participate in the birth of her baby free from pain, or have it with as much pain as she would like to have.

## **REGRESSION**

Another possibility with hypnosis is regression. By this I mean reestablishment of long-forgotten memories. A 50-year-old man can remember what he wore on his third birthday and he can tell you what he ate for breakfast that morning. Sometimes experiences can be verified through old records and things that have been recorded in baby books, the family Bible, and such places. Somnambulism is another useful effect of hypnosis. By somnambulism we mean the profound hypnotic state in which the patient presents the appearance of being wide awake. I mentioned prior obstetrics hypnosis, where the patient can participate and visit and chat and be alert and aware of everything that is going on during her delivery, but feel only the amount of pain she wishes to experience. In somnambulism the patient can look as though she is wide awake. Actually, she is in a cooperative hypnotic situation. A patient in this room could be aware of the audience or of as many of the people in the audience as she wished to know about.

Autohypnosis is another phenomenon, but it is considerably more difficult. It is useful, but induction is difficult and instruction in autohypnosis actually belongs in an advanced course.

In the induction of an hypnotic trance, one induces suggestions and primarily gives the suggestions in an indirect fashion. You should try to avoid as much as possible commanding or dictating to your patient. If you wish to use hypnosis with the greatest possible success, you present your idea to patients so that they can accept and examine it for its inherent value.

## **ABLATION OF MEMORY**

Hypnosis can involve the matter of ablation of memory as well as recall. You can forget a man's name with instant ability. Have you ever been introduced to someone, exchanged the usual courtesy, repeated his name, and immediately said to yourself, "Now what was his name?" and been embarrassed because you forgot it so quickly? Sometimes you wish to hypnotize patients and help them forget. You may want

patients to forget pain. You need to do this when you wish to control the pain experienced by cancer patients. You might wish to teach them how to experience a pain and then how to forget it so that they can spend the remaining days of their lives without having to look forward to anticipated pain. You want them to forget it so that each time the pain occurs they can forget that they ever had pain. In this way they can spend the remaining days of their lives in contact with their families.

## **CONCLUSION**

Hypnosis can be useful to you, and with it you will be able to help the patients you see. You can understand it and you can help your patients to understand it by understanding the normal psychological phenomena we have been discussing. Hypnosis simply utilizes these normal reactions and the experiential learnings that are common to all of us.

# The Investigation of a Specific Amnesia

Milton H. Erickson

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Specific amnesias are an everyday occurrence. Their study and analysis offer a wide field of therapeutic and theoretical interest through the understanding they afford of the mechanisms of repression and the means of removing, overcoming, or circumventing repressive forces. Psycho-analysts have written much on the subject, particularly in regard to the role of affect and the utilization of free-association techniques in the recovery of the forgotten word or name or whatever the amnesia may be. Recently the problem of a specific amnesia was presented to the author for investigation and recovery of the forgotten material. In achieving the desired results, use was made of the various psychological techniques of free association, hypnosis, automatic writing, crystal-gazing, and dream activity. The complexity of psychological phenomena, the successful use of disguise mechanisms, the apparent though perhaps artificial sublevels of consciousness, and the peculiar behaviour of the affect encountered all invite speculation and give rise to problems for investigation.

The subject in this experiment was a young girl studying for her doctorate in psychology. She came to the author in October, stating that on the previous Christmas she had presented a gift to a young man in whom she was much interested. The identity of this gift she had forgotten, possibly because she had later considered it not entirely suitable. She refused to give any additional information, insisting that only the nature of the forgotten object interested her, and she suggested that the very scantiness of information given be considered a part of the experimental situation.

For two weeks previously she had been trying unsuccessfully to recall the forgotten material. She was advised to continue for another week, which she did without success, reaching the conclusion that she would have to write a letter of enquiry to her friend. (The significance of this conclusion will become apparent later.) Having failed in her efforts, she now wished the author to take charge of the problem.

Free association was the first technique employed, but her conscious unwillingness to reveal anything of a personal nature rendered this means futile. Accordingly it was discarded in favour of hypnotism, since she had been trained previously for experimental hypnotic work. In the use of this technique the subject was hypnotized and awakened repeatedly throughout the course of the investigation in accordance with the needs of the immediate situation. All trances were of the profound, somnambulistic type characterized by dissociation and an apparently complete amnesia for trance suggestions and experiences.

In the first trance she was asked to give free associations. She did this readily, producing many nonidentifying associations, but she persisted in her waking refusal to give additional pertinent information. When asked in the trance state to name the gift directly, she manifested strong emotional tension and declared that she was unable to do so, that it had been forgotten completely. Since apparently no progress could be made by this method, she was given posthypnotic suggestions to the effect that when she awakened she would talk freely in generalities about the gift and suddenly name it. This succeeded in all but the naming of the object. The attempt was repeated in a second induced-tranced state, with the additional suggestion that she would interrupt her general remarks to declare impulsively, "It was a (name)." These instructions were obeyed to the crucial point, when she became emotional, seemed surprised, and complained of sudden mental blankness. Questioning revealed that she did not even have the feeling of "something on the tip of her tongue."

A third trance state was induced, in which she was given posthypnotic suggestions to perform automatic writing upon awakening. In her writing she was to give various descriptive details and finally the identity of the gift. Meanwhile, she was to engage the author in an animated conversation as a means of absorbing her attention away from her writing. However, nothing definitely descriptive was written, and when it came to the point of writing the name of the gift, her hand moved more and more slowly while she twisted and squirmed on the chair, complained of feeling tired, and protested about the hopelessness of the experiment. When the probable nature of the complaints and protests was mentioned, she showed good insight but declared herself to be unable to control her emotions. She was shown her automatic writing, of which she had been unaware. She exhibited surprise, then eagerness expressed in the enquiry, "Did I write the name?", and finally disappointment when she noted her failure. The procedure was repeated, using more forceful suggestions, but with no better results.

A slight variation was made in the technique. Posthypnotic suggestions were given to the subject to write automatically and in mixed order the letters contained in the name of the object. An excessive number of consonants was obtained. The procedure was repeated, with instructions to write automatically the letters of the alphabet, underlining those which were significant. As before, an excess of consonants resulted. In both attempts marked affective disturbance was noted, but the particular letters could not be determined. When shown her production, the subject exhibited, as before, surprise, eagerness, and disappointment.

These failures indicated a need for a still further change of technique. While in a state of profound hypnotic sleep the subject was given the suggestion that she could reveal indirectly the information desired with neither "conscious" nor "subconscious" realization of what she was doing. To this end she was instructed to continue in a state of deep hypnosis, thereby "dissociating" her "conscious mind" and leaving it in a state of quiescence. At the same time, by means of her "subconscious" mind she was to engage the author in an animated conversation. Thus, with both "conscious" and "subconscious" minds engaged, a "third level of consciousness" in a response to hypnotic suggestion would "emerge from the depths of her mind" and would express itself by guiding her

hand in automatic writing, of which she would be aware neither consciously nor subconsciously.<sup>1</sup> On the first trial, in accordance with this instruction, she wrote vaguely descriptive material concerning the gift. Further suggestion was given to the effect that the "third level of consciousness" could now write the significant information, but in such disguised fashion that its true meaning would not be apparent. The sentence illustrated in Figure 1 was obtained. As she wrote the word box, she became emotionally disturbed and complained of feeling tired, uncomfortable, and "funny," but this behavior disappeared as she completed the sentence. She was shown the sentence in both the trance and waking states, but denied seeing any pertinent meaning in it and declared that it was not her handwriting, substantiating her contention by writing the same sentence in her normal waking state, as illustrated in Figure 2. Another trance was induced and the same instructions were given to her with the addition that the word box would influence her hand to write the exact identity of the gift, but in such guise as to lead both herself and the author astray. Obeying these instructions while conversing vivaciously in a deep trance state, her hand automatically wrote in a hesitant fashion the sentence illustrated in Figure 3. As she wrote the second, third, and fourth words she exhibited much emotion, sighed, flushed, squirmed, and complained of feeling "funny."

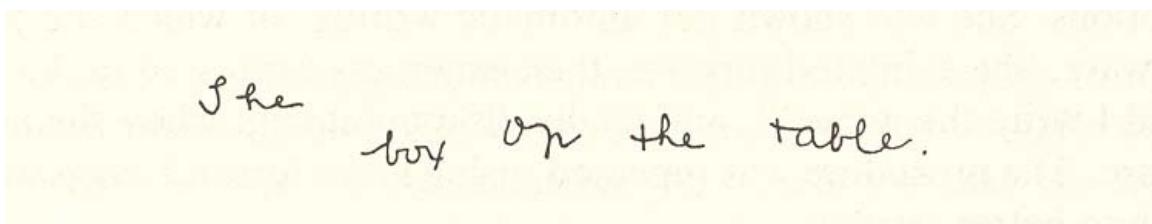


Figure 1.

She also expressed a scepticism toward whatever the author was trying to do, declaring that he must be trying to make her do something—what it was she did not know, but she did know that she could not do it.<sup>2</sup> When shown what she had written, she read it listlessly, declaring that it had no meaning for her and insisting that it was not her handwriting. Awakened, she likewise disowned the writing but she read the sentence with great interest and recalled for the first time that she had contemplated giving a cigarette case but had changed her mind. All associations became blocked at this point, and she was insistent that the experiment be discontinued as hopeless. However, her insight into the whole situation soon rendered her attitude more favorable.

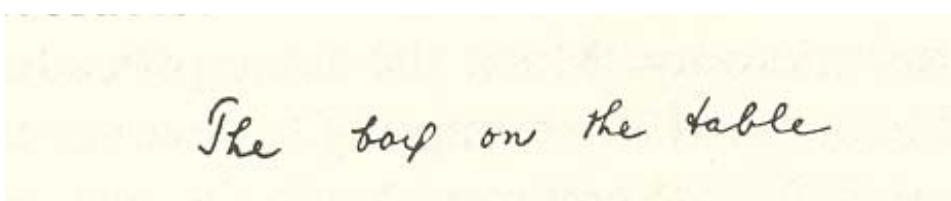


Figure 2.

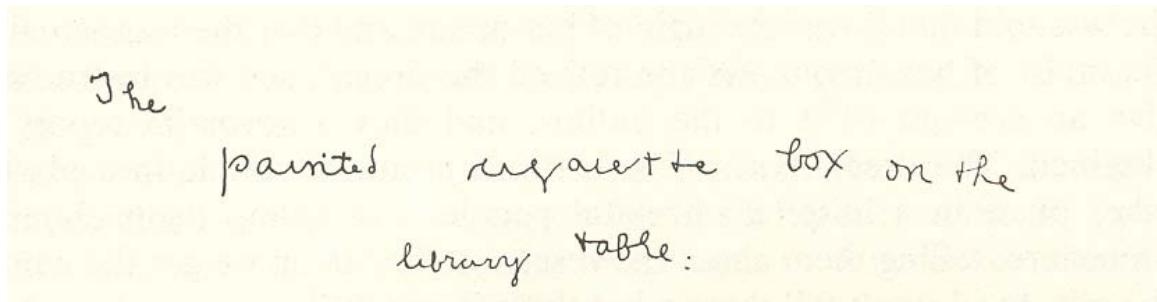


Figure 3.

Because of the subject's affective state, another change in technique was made by asking her to attempt crystal-gazing. In the crystal she saw herself walking down the street, entering a jewellery store in which she inspected cigarette cases, and then continuing down the street and entering a department store, whereupon she immediately lost sight of herself in the crowd. She saw herself next leaving the store with a small package under her arm. She took the package to her room and placed it in a bureau drawer. In response to further suggestions she watched herself prepare the gift for mailing, but each time that she was about to catch sight of the gift, her crystal image would turn in such fashion as to occlude her line of vision. All suggestions to the contrary were without effect other than that she was able to give the rough dimensions of the article, which had not been possible previously. Further variations of the crystal-gazing were without results. Finally she was rehypnotized deeply and given posthypnotic suggestions to the effect that she would dream that night about the gift but would not verbally identify it in her dream. The next morning, however, she could recall the dream and in so doing would recall the name of the gift.

Early the next day, with a complete amnesia for the posthypnotic suggestions, she related that she had awakened during the night in the midst of a dream about the forgotten article. She had recounted this dream to herself on the possibility that the author might be interested. In the morning, however, she recalled dreaming but not the dream content. Instead she suddenly recalled having a letter in her strong box thanking her for the present, and she felt herself forcibly impelled to read the letter. She did this and discovered that the object was a box of paints. She was shown the automatic writing illustrated above, and she exclaimed, "How different it looks now!"

The discovery of the identity of the gift did not end the problem, but gave rise to new and interesting aspects. A week later the subject complained that she was unable to recall her dream and that she felt a strong desire to know what it was. She asked that hypnosis be utilized in the securing of this lost memory. Much the same procedure was followed in this regard as had been used in attempting to recover the nature of the gift. All attempts were failures, however, until she was given suggestions disorienting her temporally. When these suggestions had been accepted, she was told that it was the night of her dream and that she was actually in the midst of her dream. As she relived the dream, she was instructed to give an account of it to the author, and thus a verbatim report was

obtained. The dream was: "There was a group of people in a place. It takes place in a hospital—hospital people. I'm telling them about the procedure, telling them about the results, telling them we got the name of the gift, but I don't tell them what the gift was." She was awakened with instructions to remember the dream. This she did, and expressed her pleasure, until suddenly she declared in great surprise, "I've forgotten the name of the gift now." She was urged to try to recall the gift, but after much effort and numerous attempts at free association she failed. She repeated the dream content in an effort to reawaken her associations, but even this failed. A trance state was induced and she was told to recall the name of the gift after awakening. When aroused from the trance, she promptly declared, "Why, I remember it now. It's a box of paints." After a general conversation she was casually questioned about her dream content, and to her profound amazement she discovered that again she had forgotten the dream completely. Repeated investigations disclosed that she could not keep the identity of the gift and the dream content in her mind simultaneously. Finally, in the waking state in which she could recall the name of the gift, she was casually informed of the dream content. Following this she was able to remember both.

Four days later she complained to the author that she had been trying daily to write a letter to her friend in accordance with her regular custom, but that she could not do so. She had forced herself repeatedly to sit at her desk and begin the letter, but found herself unable to write more than a line or two before her thought processes became blocked and she felt emotionally disturbed and compelled to do something else. She was given the plausible explanation that the affect originally causing the repression had not been dissipated but had subsequently attached itself to the dream content, later to the identity of the gift, and finally, when both of these repressions had been circumvented. The affect had attached itself to the idea of a letter to her friend. After listening to this explanation the subject declared, "I understand now. Now I can write my letter."

Contact was maintained with the subject following this experience, but no unusual occurrence came to either her or the author's attention.

Because of the clinical interest aroused, attention may be called here to a consideration of the automatic writing. The word box was markedly displaced in the first sentence, which is suggestive of some unrecognized purpose. A similar displacement of the significant words in the second sentence enhances the possibility that this measure is a purposeful though unconscious means of self-betrayal. This conclusion is substantiated further by noting the relatively smaller size of the letters e and d in the word *painted*. The scrawling of the word cigarette appears superficially to be a clever method of distracting attention, but the account of the motivation suggests a deep and significant symbolism for it as well as for the other two words.

The peculiar behavior of the affect at the termination of the experiment, resulting in the alternate repression of the identity of the gift and of the dream content, with subsequent attachment to the related concept of the letter, suggests a strong conflict and an unwillingness or an unreadiness to accept the symbolic significance of the ideas concerned.

Not until the above report had been drafted into its final form for publication and submitted to the experimental subject for criticism was it possible to secure an account of the motivations for her repression. Fortunately she had kept a daily journal of her thoughts during the entire time of the amnesia, and from this and her elaborations of this journal the motivations were obtained. Minor and incidental points as well as elaborations of the symbolism are omitted for personal reasons.

For five years the subject, S., had been in love with M., a man belonging to another race and culture, artistic in nature and extremely idealistic, puritanical, and conventional in attitude. She had planned to marry him at the expiration of another year. Her own philosophy of life at the time was very similar to his. In the month of September preceding the amnesia she met C., a man of her own race and culture and whose personal philosophy was the antithesis of M.'s. A warm friendship rapidly developed between S. and C., with the consequence that she felt strongly inclined to relinquish her former teachings and ideals and to accept C.'s broader and freer ideals of life. Yet to do so would be essentially a negation of what she had considered to be the final principles of personal life and a destruction of her worthiness in the eyes of M., whom she loved. As she considered this problem, she realized that any independence for herself could evolve only from a deliberate choice on her part between these opposing personal philosophies. Yet she dared not choose C., although critical thinking suggested such a choice, because to do so would be to overthrow the conventional and idealistic precepts of her past teaching. To choose M. would mean the hampering of her intellectual and emotional nature. She hoped that something would happen which would force her to recognize her fundamental inclinations, because she knew that she lacked the courage to face the decision deliberately. It was then that the amnesia developed as one of the indications of her conflict. At first she considered the amnesia inconsequential, but soon she began to feel that it symbolized her choice, and she felt a compulsive need of discovering the nature of this amnesia in order to know its meaning, and yet she feared to know its meaning. Upon the recovery of the memory she immediately understood the rationale for the selection of the forgotten object. In purchasing the Christmas gift she had first inspected cigarette cases, thereby establishing an associative value. C. possessed a beautiful antique painted box which he used as a cigarette container. The one man, artistic and idealistic, was easily symbolized by the box of paints, while the other man possessed a painted box of practical personal use. With the recovery of the forgotten identity she sensed its import but dared not recognize it. To rob it of its meaning a second problem had to be created—namely, the amnesia of the dream. When this problem was solved, she still had the fundamental question to face, but could not do it, and so a second amnesia of the gift occurred. When finally forced to remember both the dream and the gift, she realized that she had made her choice and sat down to write a letter to M., thereby formulating her ideas and definitely committing herself. However, she could not do this until, with the aid of the author, she forced herself to recognize the affective features of the whole situation.

In summary, the problem investigated was an attempt to recover the content of a specific amnesia of the entity of a Christmas gift without the aid of supplementary information. Techniques of free association alone, free association and direct questioning in hypnosis,

automatic writing, and crystal-gazing were tried without success. Finally, by means of a specious argument concerning the existence of a third level of consciousness and the permission to use disguise mechanisms, the forgotten material was actually obtained, but in such guise that its true significance was not recognized. Then by means of dream activity a situation was created whereby the subject, without assuming the responsibility, could circumvent the repression. Following this a conflict state developed, characterized by the alternate repression of two ideas, and was ultimately resolved by the attachment of the affect to a related subject, from which it was eventually dispelled. The motivation of the amnesia was not learned until months later, when the subject disclosed its origin to lie in an emotional conflict concerning two men.

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<sup>1</sup> The author assumes no responsibility for the validity of these concepts, and the trance state of the subject probably accounts for her acceptance of them, but at all events they served the purpose.

<sup>2</sup> The subject appeared to have a rather limited understanding of the whole situation when in the trance state.

# **Clinical and Experimental Observations on Hypnotic Amnesia: Introduction to an Unpublished Paper**

Milton H. Erickson

Unpublished manuscript, circa 1950's.

Hypnotic amnesia is a much more complex phenomenon than is commonly realized. The general tendency is to look upon it as a relatively simple, definite manifestation comparable if not identical with forgetting as ordinarily experienced, and controlled and regulated by hypnotic suggestions with almost the same ease and effectiveness as one can govern vision by opening or closing the eyes, or by turning the light on and off in a light-proof room. Extensive experience, however, discloses that, while hypnotic amnesia does derive from the trance state and is characterized by a functional loss of ability to recall or to identify past experiences, it constitutes a form of dynamic behavior quite different from ordinary forgetting. It resembles the latter superficially and primarily in the final end results—namely, the inaccessibility of memories. Because of this one point of resemblance there is a general tendency to investigate hypnotic amnesia by procedures primarily suitable for a study of learning and forgetting behavior. In such studies there is an oversight of the fact that hypnotic amnesia, which permits subjects to forget in a moment's time their name, age, and similar items of fact ordinarily impossible to forget, cannot be tested adequately by a procedure devised to test the retention of nonsense syllables. At best, such investigative measures can be employed to test the effects of hypnotic amnesia upon the retention of nonsense syllables, but a determination of such effects in relation to a chosen, limited form of behavior does not constitute a study of hypnotic amnesia as a phenomenon in itself.

Experiments may also be devised in which subjects are permitted to undergo certain experiences while in the trance state. Then, either with or without instructions to forget those experiences, subjects are awakened and tested directly or indirectly for any memories they may have of the events of the trance period. In such an experimental procedure it is assumed that any unusual decreases or inaccessibilities of the memories of the hypnotic experiences derive simply, directly, and immediately from the hypnotic state itself, from any suggestions to forget that may have been given or from a combination of both factors. Also, it is assumed that any decreases that are found constitute evidence of an actual process of forgetting as a simple, unitary, specific phenomenon and that any immediate failure to show such decreases in memory signifies the ineffectiveness of the effort to secure hypnotic amnesia.

In other words, in this type of experiment the basic assumptions are that hypnosis in and of itself may be an entirely adequate genetic factor for the development of an amnesia, that such an amnesia necessarily develops readily and immediately, that it may be elicited by simple suggestions to that effect, and that any amnesia developed is necessarily a

sufficiently stable manifestation to resist explorative measures despite the fundamental suggestibility of the hypnotic subject upon which the amnesia itself is based.

Another unfortunate assumption in this type of procedure is that a test procedure can be elaborated, controls established, and time limits set for the evocation of investigative results without adequate realization that reliable experimental results do not depend upon the completion of an experimental procedure, however well devised, that does not make full provision for the nature of the phenomenon under investigation.

Additionally, these general assumptions favor the continuance of the misconception of hypnotic amnesia as analogous to ordinary forgetting. They permit an oversight of the fact that the hypnotic state is a result of a dynamic, purposeful interplay of personality forces, and they do not make provision for the probability that any derivative or outcome of the hypnosis is also of a dynamic, purposeful character not comparable to the progressive, sequential processes of psycho- and neurophysiological functioning basic to forgetting as commonly experienced.

Consequently, experimental studies that have been based upon limited and inadequate assumptions and understandings and that have failed to make provision for a phenomenon quite different from ordinary forgetting have led to conflicting and confusing though occasionally informative findings. For example, reports have been made of no amnesia, of a partial or incomplete amnesia, of a profound amnesia, of an intentional or an unwitting simulation of amnesia, and of results similar in effect to amnesia such as blocking and repression.

Despite these contradictory investigative findings and the frequent uncertainty and unreliability of hypnotic amnesia as it is encountered both experimentally and clinically, experience discloses it to be a definite and significant trance phenomenon, exceedingly complicated in its manifestations, sometimes difficult to discover and to recognize and always difficult to test satisfactorily. It resembles ordinary forgetting in certain superficial aspects, and this resemblance can be greatly enhanced by a careful choice of hypnotic suggestions in inducing it. It is much more likely to seem to resemble or to parallel various forms of psychodynamic behavior seen in everyday life and to duplicate in many regards psychopathological states, from which it seems to differ mainly in the degree to which it can be manipulated and controlled rather than in its form, structure, and associated developments.

In addition to the difficulties caused by the complexity of hypnotic amnesia, there is another experimental difficulty of primary importance to investigative procedures—namely, the inherent contradictions of the total experimental situation. Stated simply, the total situation requires that an amnesia be suggested to a subject in a highly suggestible state. This suggestion of an amnesia is then followed by a second suggestion-direct, implied, or inherent in the test procedure—that the subject recover the amnesic material. Hence, the findings obtained are more likely to be a measure of the relative strength of the two opposing suggestions rather than a measure of the extent of the hypnotic amnesia originally induced.

Nor can this inherent contradiction be circumvented easily, since the amnesia is an induced phenomenon, more or less sharply defined as an experience, and not the outcome of progressive processes of behavior as is ordinary forgetting. For example, the induction of hypnotic amnesia for learned nonsense syllables, followed by the task of learning a new set of nonsense syllables actually inclusive of some of the presumable amnesic syllables, does not constitute a satisfactory experimental situation. In undertaking the new task the subjects, if they cooperate fully, are at liberty to do anything that can aid their performance—and this may include in their understanding the recovery of any memories or associations that might help in the new task. Hence the greater rapidity of learning for the amnesic syllables is not necessarily a measure of the incompleteness of the hypnotic amnesia; it may equally well be a measure of the degree to which the subjects were to abolish the amnesia in their effort to perform the new task.

Another important consideration, definitely related to the problem of suitable experimental conditions, lies in the highly significant role played by associations—whether chance, incidental, relevant, or irrelevant—in permitting the recovery of amnesic material. Although this is fairly well recognized generally, it is often overlooked in experimental settings. The following account is an example of ordinary forgetting that discloses the readiness with which amnesic barriers may be overcome by an item of experience serving to arouse associations related to the forgotten data.

A college graduate, in anticipation of a visit with his senior-year roommate whom he had not seen for 15 years, was led to discover a 20-year-old college directory in which, at the end of his freshman year, he had placed a checkmark opposite the names of all his college mates whom he knew well. To his amazement he could call to mind very few of them. Repeated efforts during the next two weeks permitted the recovery of a few more identities. Upon the arrival of the guest, and before there had been any exchange of reminiscences, the directory was produced. To the man's astonishment he discovered at once, and with no help other than the mere presence of his former roommate, that a wealth of recollections came flooding back, and he was able to recall a large number of the forgotten identities.

Two weeks after the departure of his friend he again looked through the directory, only to discover that he had again forgotten nearly all of the names, retaining only a few more than he had originally recovered by himself.

This chance observation led to several experimental investigations under controlled conditions of a similar problem. The subjects were chiefly psychiatrists who had formerly worked in the same mental hospital. They were tested separately and together for their recollection of the names of former ward patients, among which were listed names unfamiliar to them. The results obtained in each instance confirmed those of the original observation. Furthermore, similar observations and experimental inquiries that yielded comparable results have been related to the author by a number of associates.

Discussion of the above observations is hardly necessary. They serve to emphasize the importance, in a memory-searching situation, of realities and associations, even those remotely connected with the amnesic material, in permitting a recollection of otherwise inaccessible memories. In the same vein they show that the removal of those associations—as in the above instances, mere physical removal of the person constituting the source of associations—is sufficient to reestablish the amnesia in large part.

Hence in any study of hypnotic amnesia there is a need to be most appreciative of the possible removal of an established amnesia through the force of associations unintentionally established by an experimental setting, with a consequent misinterpretation of test results. Since hypnosis and presumably its derivatives are based upon dynamic interpersonal relationships, the significant effectiveness of associations may be of primary importance in maintaining or abolishing an induced amnesia.

Also pertinent to the importance of associations in the accessibility and utilization of past learnings is the following example from the field of animal psychology. Although it bears more upon the problem of learning than upon amnesia, it effectively illustrates that something well learned can become meaningless when encountered out of context, thus giving an effect comparable to a failure of recognition and such as may occur in amnesia.

This example relates to the teaching of a series of tricks to the family dog. By force of circumstances this teaching and all performances of the tricks occurred in a basement room, although the dog had the run of the entire house. One day, long after the dog had not only learned the tricks well but would perform them spontaneously in anticipation of a food reward, visitors asked for a demonstration. The dog was called into the living room, a crust of bread was offered, and the usual commands were given. The dog gave every evidence of wanting the bread but seemed to have no understanding of the commands or of what was wanted, despite patient, repeated efforts. When everyone went down to the basement, the sight of the bread crust was sufficient to elicit repeated spontaneous performances of all her tricks without commands being given. Even after having eaten the bread, she performed readily upon commands from anybody without further reward. Upon return to the living room the dog again seemed unable to understand commands, nor did the offer of food do more than elicit restless, hungry behavior. Giving her small morsels didn't help, but another trip to the basement resulted in an adequate performance. Finally, after repeated commands and offering of food and much restless puzzled behavior by the dog, she finally began to understand the familiar command of "Roll over." She responded by racing to the basement, performing the task, and then racing back for the food reward, repeating this behavior at every new command.

While this behavior cannot legitimately be called an amnesia, certain of the results were comparable to those that would derive from an amnesia. Furthermore, when it is realized fully how extensively hypnotic amnesia depends upon associated circumstances and conditions of a limited character, the possible parallel with this example becomes apparent and serves to demonstrate the need, in any experimental study, to make adequate provision for possible association factors.

This brief discussion of the difficulties involved in the experimental study of hypnotic amnesia is not intended to be exhaustive or to define all of those problems for which provision must be made if satisfactory findings are to be obtained. Rather, the immediate purpose of this discussion is to direct attention to certain general considerations that seem to be of basic importance in such studies as a preliminary to a report of the author's clinical and experimental studies of hypnotic amnesia. The objective of these studies was primarily an extensive observation of the general characteristics, forms, and varieties of hypnotic amnesia, rather than an attempt to define presumably possible behavior in terms of a precisely controlled situation. By such observational studies it was felt that one might obtain a more extensive knowledge of the possible manifestations of hypnotic amnesia, which could then more readily permit the devising of experimental situations offering better provision for the nature of the phenomena under study and for a more precise definition of the behavior elicited.

# **The Problem of Amnesia in Waking and Hypnotic States**

Milton H. Erickson

Unpublished manuscript planned with André Weitzenhoffer, circa 1960s.

In the experience of this author, which extends over 40 years, amnesia as a phenomenon of hypnosis is of three varieties—all of which have their counterparts in the ordinary state of conscious awareness. The primary differences between hypnotically induced amnesias and those of everyday life are that the former can be intentionally controlled or directed by others, while those of daily life are not easily amenable to external direction but are dependent upon processes within the person for their manifestation.

Yet, in many ways the development of hypnotic and waking amnesias occurs in much the same way; both types can be spontaneous and directly or indirectly suggested. However, hypnotic amnesias can be determined deliberately and controlled extensively, but not necessarily completely, by someone else. Perhaps the best way of clarifying this subject of hypnotic amnesia, which is much debated and even denied as a phenomenon of actual occurrence by a few critics of hypnosis, is by discussing the various types.

## **SPONTANEOUS AMNESIAS: WAKING AND HYPNOTIC**

Perhaps the best examples of spontaneous amnesias of the waking state are those that occur frequently in the experience of most people. One example is the experience of being introduced to someone, shaking hands and acknowledging the introduction by repeating the person's name, and a moment or so later wondering desperately what that person's name is. Another common experience is asking directions when intent on reaching a certain destination, repeating the directions as they are given, only to wonder a few minutes later at which intersection to turn and whether to turn right or left.

Then there is that common occurrence where a professor carefully specifies to an attentive class the day, the hour, and the room in which the final examination of the course is to be given, only to find members of the class a few minutes later in the hallway wrongly debating the hour, the day, and the room specified. This rapidly teaches instructors to say, as a preliminary remark, "Now write this down carefully," before giving such vital information. Even so, students highly interested in the course and fully expectant of a high grade will discover their need later, perhaps by the time they reach the dormitory, to consult their notes in order to know what instructions they had been given.

In all three examples the primary element is something quite different from lack of attentiveness. In the first instance the social gathering is of primary importance—not some stranger's name, no matter how attentively received. In the second instance the

reaching of the destination, not the precise noting of distances, is of primary importance. Similarly, in relationship to the predicament of the students the final completion of the course is important, not the hour of the exam, which is usually different from the class hour; not the day, which has no bearing upon the course; not the specified room, which so often is not the regular classroom. We tend to spontaneously forget the parts or details of a situation when we are fixated or motivated by the total Gestalt or major goal of that situation.

Still another type of peculiar and spontaneous waking amnesia is that encountered when asking directions from a stranger for a specific goal well known to that stranger. For example, the author was riding in a car with some colleagues when we arrived at a small town. Our general information was that the meeting we were to attend was being held in a hall across the street from St. Mary's Church. Noting a woman who had just concluded an animated conversation with a gas station attendant, our driver stopped at the curb and, as the woman reached the sidewalk, asked her if she knew where St. Mary's Church was. She answered promptly, "I certainly do. I go there for Mass every Sunday. Just drive straight ahead for exactly one mile, and at the top of the hill there, turn right. It's right near the corner." Our driver thanked her, whereupon she asked curiously why we were going there at that time in the evening. The driver explained that we were attending a medical meeting in a building opposite the church. She replied, "Oh, yes, I know that medical building, but it's not straight across from the church. It's about two houses further down." She was thanked, and our driver drove on two blocks, then stopped the car and declared, "Something is wrong. She was too explicit, too precise, so completely certain in each statement. I'm going back to that gas station and get correct directions."

The gas station attendant was told precisely the directions the woman had given. The man looked puzzled, then his face cleared and he laughed and said, "My wife gave you exactly the right directions, only she must have forgotten she was downtown and not at home. You're headed in the right direction now, but at that stoplight one block down, turn right, go about three blocks, and at the top of the hill you'll see it—the only church there." His directions were correct.

What brings about such an occurrence? *There is a dominance of a well-established item of memory that takes precedence over the incidental, immediate realities of the situation which are spontaneously forgotten* so that a response is made accurately in terms of the well-established memory belonging to a totally different situation. More than once the author has experimentally inquired for directions to the location of a landmark familiar to him. Upon receiving explicit instructions, the author has carefully repeated them with an introduction such as, "Now let's see, we are at the corner of 7th and Wall Street and. . ." Not infrequently the informant has remarked in astonishment, "Oh, no! I told you the way I usually think. I just forgot for the moment that I was *here*," and then corrects the previous instructions.

Numerous other instances of spontaneous waking amnesia could be cited, varying in type, but the above should be sufficiently common experiences to establish the reality of

this phenomenon. Also, the amnesia can be experimentally elicited without the use of suggestion by evoking processes occurring within the person.

Yet another example of spontaneous everyday amnesia comes to mind. This is best exemplified by the sudden, dismayed remark, “I was just about to say something very important to you. I know it was important—it’s been on my mind for an hour—and just as I was about to say it, someone slammed the door, and for the life of me I can’t remember it.” And they do not, though perhaps an hour, a day, a week, or even months later the specific communication will be inexplicably recalled, perhaps in a dream, perhaps by another sudden slamming of a door, or the occurrence of some specific stimulus evocative of that intended communication. *Here the amnesia is evidently due to the loss of an important associative connection caused by an outer interruption that momentarily distracts the person and “breaks his train of thought.”* “Then, too, there is the somewhat comparable experience of leaving a room and entering another on a specific errand with the frustrating realization that the purpose in mind has vanished upon arrival in that room. One can puzzle and puzzle and not recall, but often a return to the original room and/or a resumption of the interrupted task brings a flash of recollection, which is then laboriously kept in mind while the trip to the other room is successfully repeated. *Here the amnesia is due to a break in important, momentary environmental associative connections because of a sudden loss of the support that the outer situation contributes to the memory item.*

Both of these last two types of spontaneous waking amnesia can be deliberately induced by the simple expedient of speaking to subjects on some topic unrelated to their thinking or intentions. As they become aware of their amnesia, they might remark exasperatedly, “Now you’ve broken my train of thought and I can’t remember what I was going to say or do.” But again, the process is experienced as occurring within the self, not actually induced by the other person except incidentally. Also, in both of these last two types one can often aid the amnesia victim by saying, for example, “You just came out of the kitchen,” or “you were just doing (such and such interrupted task) . . .” whereupon, by some inner process, the “broken train of thought” is reestablished.

Yet there are those persons who, for reasons not clear to this author, disclaim the phenomenon of hypnosis as no more than complaisant behavior or as “role-playing,” and that the “amnesia” of this so-called hypnosis is nothing more than an “as-if pretense.” In other words, the claim of these critics is that a nonexistent phenomenon (hypnosis) so alters the behavior of people that they cannot manifest the same behavior (amnesia) under hypnosis that they spontaneously manifest in the ordinary waking state.

In this author’s experience there can be developed in a person a special state of awareness that is termed, for the sake of convenience and historical considerations, *hypnosis* or *trance*. This state is characterized by the subject’s ability to retain the same capacities possessed in the waking state and to manifest these capacities in ways possibly, though not necessarily, dissimilar to the usual actions of conscious awareness. *Trance permits the operator to evoke in a controlled manner the same mental mechanisms that are operative spontaneously in everyday life.*

Thus, certain hypnotic subjects may develop without instruction a totally spontaneous amnesia because of an interruption of the ordinary state of awareness by the establishment of a different state of awareness (due to hypnosis, drugs, shock) with no associative connections to the ordinary state of awareness. On arousal from this special state and return to the usual state of consciousness there will frequently be an amnesia for the events that transpired during the special state [see the “state-bound” theory presented in the next paper]. One might consider the hypnotic state marked by a total amnesia a phenomenon this author has found can last for 40 years—as an intrusion of a special state of awareness into the ordinary state to which it has no relationship or associative connections. It is similar to the common situation in life when one may drive automatically through heavy traffic so intently interested in a conversation with a companion that the arrival at the destination becomes a total surprise, and there is no recollection of having stopped at red lights or of being delayed at police-patrolled intersections. The only proof of competent driving is the safe arrival without a citation. *The absorbing conversation was a special state that precluded any memory of irrelevant details of the situation in which it took place.*

These examples indicate that there can be separate states of awareness that develop spontaneously in ordinary life: they are independent of each other, and can give rise to a total amnesia. If this can occur spontaneously, why then should there be any doubt that similar situations can be set up psychologically in order deliberately and intentionally to evoke hypnotic amnesias?

In addition to total spontaneous hypnotic amnesia there may be a partial spontaneous amnesia in which the recollections are unclear and vague, such as, “You had me read something—maybe it was a book—I’m not even sure it wasn’t writing—something about something blue.” A year later the subject—without further hypnosis, but upon being reminded of something we did last year—might very well reply, “Oh, yes, something about a book or writing, maybe something about a color.” This has occurred whether or not the person was used as an hypnotic subject in the meantime.

There can also occur a spontaneous selective amnesia in which only certain events are remembered—just as in the ordinary waking state some people always remember either the pleasant or the unpleasant aspects of past occasions, but not the total event. In subsequent trances, however, a full recollection of the previous trances could occur, but again and again the same selective spontaneous amnesias and the same spontaneous recollections would also occur. Repeated efforts have failed to discover the reasons for such selectiveness, since the amnesia involves minor, unimportant matters as frequently as it involves major matters.

Another item of interest is the inconstancy of spontaneous amnesia as a phenomenon. Only a few subjects consistently develop a spontaneous amnesia. The great majority of such subjects are likely at times to have spontaneous recall either immediately or later. There seems to be no known way of predicting in advance what will occur in any individual trance situation or for any particular subject. The same is true of subjects

showing spontaneous selective amnesia and partial amnesia as is true of those showing complete spontaneous amnesia. They may manifest on one occasion a complete spontaneous amnesia; at another time only partial amnesia is present; at still other times an immediate or delayed recall, either partial or complete, will appear.

Predictions as to trance outcome can be made only at a statistical level for repeated trances in the same subject. However, continued experience with a single subject often provides minimal cues that, when perceived by the sensitive operator, can lead to fairly accurate predictions.

### **DIRECT SUGGESTIONS FOR AMNESIA**

Amnesia resulting from direct suggestion is a phenomenon that occurs in everyday life most commonly in relation to children, though it also occurs in relation to adults. One of the most typical examples involving children would be the case of the child who comes dashing into the house to complain bitterly about a violent disagreement with a favorite playmate and is told casually but sagaciously by the parent, "Oh, forget it and go out and have a good time with Milly." An hour later, when the child is questioned at length, one frequently discovers that the child reacted literally as told and even looks blankly as the playmate relates the quarrel. Upon hearing the story retold, there is often a slow recovery of the forgotten quarrel.

A typical example of this type of amnesia among adults is the situation that occurs within a social group dining out in a restaurant. When the tab arrives, one of the group usually says, "Oh, forget it, boys. This is on me." Then, if the group goes for a social hour after the dinner to the home of someone other than the man who paid the bill, the various guests can be casually asked, "Who paid for the dinner?" Frequently the answer is, "I was going to, and so was everybody else, but I just don't remember who did. I only know I didn't pay the bill." However, if the wives present are asked, they invariably remember (they are not one of the boys). Also significant is the fact that if the social gathering is held at the home of the man who paid the bill, the dinner host is usually remembered without fail.

In teaching nurses, social service workers, postgraduate psychology students, medical students, interns, and residents in psychiatry, a certain experiment has been conducted repeatedly both verbally, and by mimeographed material. The procedure is simple. One selects 10 or 20 items of any subject matter judged to be of equal value. All of these items are explained in equal detail, but to the explanation of some items there is added the casual statement, "This is just for your general knowledge, so you can forget about it now."

This can also be carried out in written form, using mimeographed sheets with that parenthetical statement appended to the chosen item. The experiment can then be repeated in many different ways: using different groups of subjects and altering the choice of item for each group; repeating the same procedure both verbally and with mimeographed material; and by using different sets of comparable items, with one item

always marked by that casual admonition. Tests given on the various series of the items always show a higher percentage of failure on the item carrying the instruction to forget it for both instances of verbal or mimeographed presentation.

A comparable experiment was conducted in which the casual statement was appended parenthetically to one item: "This is for your general information, and now that you know it you might as well remember it." Tests given some three months later yielded higher percentages of recall on this item. This experiment was repeated many times with different groups of subjects, always with similar results.

It was also observed that if the tests were given too close together in time, the admonition to forget or to remember would be remembered from the previous occasion. Under these circumstances the admonition to forget had an opposite effect and the one to remember led to even higher percentages of remembering. Over the long period of years during which the author taught, there was adequate opportunity in which to space these experiments over relatively long intervals.

Still another type of direct suggestion witnessed by the author on more than one occasion concerns a group of teenagers at a local hangout. A police officer, sensing something about to happen, authoritatively says,

"All right, boys, break it up and move along." More than once the author has subsequently questioned one of the dispersed gang and received the resentful reply to the effect that they were planning some fun when the cop came around and spoiled their plan. When asked what the proposed fun was, quite frequently a surprised look followed by one of resentment developed, and the answer given was, "I just got so damn mad that I forgot what it was."

Interviews with teenagers who have a tendency toward delinquency have frequently elicited the complaint, "We were just minding our own business planning something when Old Baldy [the high school principal] came along and said, 'No loitering in the corridor. Just forget what you're about to do and go to your respective classes.'" Asked what had been planned, the reply would be, in effect, "It was plenty sharp, but Old Baldy got me so mad that I can't remember."

In the ordinary state of awareness, then, direct suggestion can be given to elicit amnesias. In this author's experience, however, such suggestions are most effective if given in a casual, nonrepetitive fashion and under circumstances involving some form of increased emotion. Too frequent a repetition of the word forget will usually have the opposite effect. Thus, when the following conditions were present and mimeographed material was given to the subjects, the opposite of what had been admonished would occur: The item chosen for them to forget was prefaced by the statement, "This item you may forget if you wish, since it is only for your general information," followed by the material chosen for them to forget. The admonition was repeated at the end of the test. Repetition of the instruction to forget produced a better recollection of it than of the other "neutral" items. In this way direct suggestion to forget in the ordinary waking state can be effective—particularly if it is given in a casual manner.

Moreover, such forgetting is characterized by considerable difficulty in recall. The person usually “puts it out of mind,” and when told to remember “that which is forgotten,” responds with a blank and wondering look. However, if the material that is amnesic is identified in part, there is an immediate and complete recall often followed by the explanation, “Do you know, that slipped my mind completely.”

In hypnosis the matter of direct suggestion to forget is of another character. It can be given directly, emphatically, and repetitiously as a specific instruction rather than as an incidental, casual admonition or suggestion. Furthermore, the amnesia that develops is effective in both the trance state as well as posthypnotically. For example, a female subject may be told to forget what she had eaten for breakfast that morning. As she accepts the suggestion, she can then be questioned by naming a variety of possible foods, among them those she actually did have for breakfast. She may reject each one readily, or she may thoughtfully consider each one and recall previous occasions on which certain items were eaten. But those of the morning’s breakfast are not recognized. They do not “come to mind” when mentioned as they do in the waking state. Additionally, the duration of the directly suggested amnesia can often be easily determined, and its recovery can be made contingent upon any chosen cue or even a minimal nonpertinent stimulus at some later time. This is not true of the forgetting that occurs in the waking state.

Then, too, such a recovered memory can be hypnotically abolished immediately upon a direct request—almost an absurdity in the waking state. It can also be abolished by minimal nonpertinent posthypnotic cues which can be repeated indefinitely. Such amnesias are dependent upon external stimuli rather than upon inner associative processes.

### **INDIRECT SUGGESTIONS FOR AMNESIA**

A remarkable anecdote taken from a clinical case history best illustrates indirectly suggested hypnotic amnesia. A rather paranoid patient of the author’s kept his Monday appointment, stating in belligerent, obscene, and profane language that he wanted no further nonsensical efforts at psychotherapy. He wanted a deep hypnotic trance induced without any further evasion or delay.

The author’s response, as the patient seated himself in a chair, was to lean back comfortably in his own chair and in a soft voice, slowly, gently offer suggestions of increasing relaxation, fatigue, sleepiness, and the development of a deep, sound hypnotic trance.

Irately the patient leaned forward with his hands on his knees, scornfully denounced the author as being idiotic in using “that soft, gentle voice of yours,” and demanded instantly that a strong authoritarian technique be used. Unconcerned, the author continued his “soft, gentle technique” uninterrupted by the continuously repeated demands of the patient for the next 50 minutes. Then the author glanced openly at the clock and sat up to

dismiss the patient. Bitterly the patient commented on another "wasted hour," declaring that the whole procedure was a total failure and that he could remember everything the author had so stupidly said. At this point the author said, in the same gentle, soft voice, "Naturally you heard everything I said here in the office, and you remember it here in the office. You are sitting within six feet of me, and so here in the office you remember everything I said. Your next appointment will be the usual hour on Wednesday." Still in a rage the patient left after a few more caustic remarks.

The next Wednesday he was carefully met in the waiting room, not the office. In a puzzled manner he asked, "Did I keep my Monday appointment?" The author replied, "Naturally, if you kept your appointment on Monday, you would remember it!"

He then explained that on Monday he had found himself sitting in his car outside his apartment, trying to remember if he had just come back from the university or from the author's office. He did not know how long he sat there debating with himself, but he was sure it was a long time. Finally he looked at his watch and realized that it was definitely more than an hour later than the scheduled appointment. Again he asked if he had kept his appointment, and the same reply was given.

The author led the way into the office, and as the patient stepped over the threshold into the office, he declared irately, "I did too keep my Monday appointment, and you wasted the whole hour and charged me for it, with that soft, gentle technique!" He had much more to say and did so emphatically. When he finished, the author casually remarked, "There's a magazine in the other room I want you to look at." Obediently, the patient followed the author out of the office, only to repeat in full the foregoing scene, with the author giving the same replies. Upon reentry of the office, the behavior of a few minutes before was repeated. The same casual comment about a magazine was again made, and upon returning to the waiting room there was yet another repetition of the amnesic behavior.

A return to the office elicited the same response a third time, but as he concluded the patient added in astonishment, "Why this is the third time I've remembered keeping my Monday appointment!" Instantly the author replied, "Naturally, here in the office you remember."

The patient then became interested in his out-of-the-office amnesia and promptly stepped out of the room. Hesitantly he paused and with embarrassment turned around to remark, "I can't understand why I found myself walking backward toward your office. But I am puzzled to know if I kept my Monday appointment." He was invited to come into the office, and he immediately declared, "I wasn't backing into your office. I was going out to see if I could remember out there if I kept my Monday appointment, but I didn't. Now I'm going to back out of the office and see what happens."

This he did, and just outside the door he asked, "Will it be all right if I come in now? I'm curious about my Monday appointment." He was invited to enter and immediately said, "I remember everything in here—why that's what you said! 'Here in the office you can

remember everything!' And I thought you weren't hypnotizing me, and I was mad at you because I thought you were failing me. But you must have put me in a trance and given me a posthypnotic amnesia. I wonder if it still works." With that he stepped outside the office, turned around, looked at his watch, and said, "I guess I'm about twenty minutes late. All the way here I've been trying to remember if I kept my Monday appointment."

He was invited into the office, developed full recollection, and said, "That settles it. I apologize for my rudeness last Monday. And I do have a posthypnotic amnesia outside this office. You must have thought me some kind of fool bouncing back and forth, forgetting out there, remembering in here, then forgetting out there again. From now on you do therapy on me any damn way you want to. It's plain you know more about me than I do."

Since then the patient has developed a complete amnesia for the entire matter. Several times he has inquired if the therapist thought hypnosis would be of any value, and he has readily acceded to the author's negation. From that day on steady therapeutic progress was made.

Hypnotic amnesias can be given time limits that are not possible in the ordinary waking state. An example is that of a student repeatedly hypnotized during the author's senior year in medical school. This subject was unable to develop a spontaneous amnesia, but he could develop amnesia upon direct suggestion. He had sought hypnotherapy by the author, who at that time was working under the joint supervision of the departments of psychology, psychiatry, and pharmacology and a psychiatrist-lawyer, all of whom acted as his sponsors to prevent, the Dean of the College of Liberal Arts from expelling him for daring to deal with the black art of hypnosis.

This particular student was seeking therapy for stuttering. It was discovered that in the trance state he spoke fluently. A posthypnotic suggestion for a total amnesia of all trance experiences was offered as an experimental measure and out of curiosity following the first few trances, during which an effort had been made to secure a history of his stuttering. No therapeutic progress was made with the patient, but he was insistent upon continuing and expressed a willingness to be an experimental subject for the author to compensate him for the hoped-for therapy.

Accordingly, because of the author's interest in hypnotic amnesia, the following direct suggestions were offered: That he develop a complete amnesia for all trance experiences; that he visit the author socially once a week for the remainder of the month; and that he develop a deep trance each time he talked fluently.

Two more social visits occurred, and upon opening the door the student spontaneously developed a deep trance, awakening only as he left the author's apartment. On each of these visits he offered the information that he had not been stuttering since he had been instructed to have a waking amnesia for trance experiences.

On the last visit, while in a profound trance, he was told that the author was leaving Madison for an internship in Colorado and thus might not see him again for a period of a year—perhaps many years—and since an amnesia for his trance experiences seemed to correct his stuttering, he might as well continue to maintain that amnesia for all hypnotic work. Additionally, he was given the posthypnotic suggestion, “On the occasion of our next meeting, no matter where or when, as we greet each other with a handshake, you will immediately develop a profound trance state so that I can ask you a few questions.” To this he readily agreed.

Approximately nine years later the author called upon another hypnotic subject who was then the city editor for a daily paper in Madison. As the author was about to enter the editor’s office, his former stuttering patient came rushing out on an assignment, recognized the author at once, extended his hand in greeting, and developed a deep trance state. A hasty social visit with him occurred, and he explained that he was a reporter for the paper and on a rush assignment. Special inquiry elicited that he had maintained his amnesia and that he had not stuttered in the past nine years. He was told to “keep up the good work” and to continue his amnesia.

During the visit with the editor, mention was made of meeting Jimmy just before entering the office. The editor remarked, “I didn’t know you knew him. He is our prize reporter, and I just sent him out on a big story that has to be covered fast.” The author then asked the editor if Jimmy stuttered. The editor was astonished by the question and stated, “In the five years he has worked for me, he has never stuttered, and I know him thoroughly. He’s my prize man. Did you know him before?” An evasive reply was made, and the editor was asked if his wife was still as opposed to hypnosis as she had been nine years previously. He replied, “Oh, yes, Nan never got over her prejudices, but now and then I call at Herb’s office [Herb was a classmate of the author’s and was Nan’s brother], and he puts me in a trance to relax me. You know, being the city editor is not the most relaxing job you can have, especially when big news stories break fast.” Just why or how a posthypnotic amnesia served to effect a correction of stuttering is completely inexplicable. But then, much psychopathology is also completely inexplicable.

This is not the only case. Another Wisconsin student had sought out the author, explaining that he was a bad stutterer and that he hoped hypnosis could be used to correct it. He had undergone much speech therapy in various schools but without any good effect. In fact, he felt that his condition had worsened, and he was having much difficulty in his premedical course work. All of this constituted a serious handicap for him, and he earnestly pleaded for at least a trial at therapy. He was told that the author was leaving Madison within two weeks to take up his internship and had barely time to teach him how to go into hypnosis. Upon his insistence, however, hypnosis was attempted, and he was found to be an easy somnambulistic subject with complete spontaneous amnesia. He was deeply hypnotized on four occasions, and each time he talked fluently in the trance state. Because of the author’s clinical ignorance as to what to do in the way of therapy, the following suggestion was offered: That since he really knew how to forget his trance experiences when in the state of conscious awareness, and since he could talk fluently in the trance state, he might undertake to spend the summer putting his stuttering into his

unconscious mind and replacing it with the fluent speech of the trance state, all the while maintaining his total amnesia of trance experiences.

Some 13 years later a patient walked into the author's office bearing a letter of referral from this former premedical student, stating that he had failed in his psychoanalytic therapy of the patient but that hypnotherapy might be of value. This was the author's first knowledge of what had become of that premedical student. A few years later, when lecturing at a psychoanalytic institute, one of the psychoanalysts came up and introduced himself. It was the former premedical student. Inquiry was made about the progress of the patient referred, and the author cautiously inquired why he had referred that patient. The analyst stated that he had long followed the author's publications and that his own frustration with the patient had led him to wonder if another type of therapy might be of value.

Since the analyst was speaking fluently, he was even more cautiously asked if he and the author had ever met before. He replied with a laugh that the author probably would not remember, but the last year the author had been in medical school, he had consulted with him about a bad stammer with which he had then been afflicted. The author effected to recall vaguely and asked if his analysis had corrected the stammer. The astonishing reply was, "No, it just naturally disappeared that summer." Thereupon he was asked what his own psychoanalysis had revealed about the past in relation to the stammering. The reply was made, "That was one area of my life that has been completely blacked out, and I'm not really interested in ever learning anything at all about it." He was asked if this was an emotionally based attitude. He answered, "Well, it might be, but I haven't stuttered since that summer. During my analysis I became curious about it, but nothing ever came through."

As if to change the subject, the author asked what interest the analyst had in hypnosis. His reply was that he was entirely content with psychoanalysis and did not have any interest at all in hypnosis except that for some unknown reason he was extremely interested in the author's publications and that he had continued to read them during the time of his analysis despite his analyst's objections. He had never withheld this fact from his analyst, but neither of them had ever uncovered the source of his peculiar interest in the author's, and only the author's, publications on hypnosis. Thereupon he introduced the author to his analyst, who remarked, "I've often wanted to meet you since John always violated my instructions in relation to you and your writings. What is the relationship between the two of you?" My reply was simply, "Well, we both were at the University of Wisconsin at the same time one year, and we are both interested in human behavior." Since then, despite other referrals and some casual meetings at conventions, nothing further has developed.

One can only futilely speculate on what did occur in this particular patient—not only therapeutically, but also in relation to the significance of the hypnosis, the spontaneous amnesia, and the remarkable known persistence of that amnesia from 1928 to the time of our last meeting in 1958. It also gives rise to a number of questions concerning psychoanalysis as an exploratory, investigatory, or evocative modality, since the man

underwent three years of “therapeutic” psychoanalysis and two years of “controlled” psychoanalysis without recall of his hypnotic experience.

# **Varieties of Hypnotic Amnesia**

Milton H. Erickson and Ernest L. Rossi

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This paper is a condensation and synthesis of three unpublished efforts by Milton H. Erickson during the years 1936 to 1970 to illustrate his studies of hypnotic amnesia in clinical and naturalistic settings. The complexity of hypnotic amnesia, long recognized by Erickson as a result of such studies, has become established fact during the ensuing years of controlled laboratory investigations. There still remains a stark contrast between the results obtained in clinical and laboratory settings, however.

A recent interview (Cooper, 1972) of the research literature on hypnotic amnesia summarizes this problem by stating, "What needs yet to be done is to systematize and carefully record the important factors in the clinical situation, and then study their influence in a clinical laboratory setting; that is, a laboratory setting in which the clinical factors are maximally operative (p. 252)."

As a contribution to recording "the important factors in the clinical situation" a number of Erickson's original studies illustrating the varieties of hypnotic amnesia will be presented together with some of his innovations in producing amnesia. These studies were chosen because they illustrate the complex behavior that may result from investigative work where the clinician is able to explore and utilize the individuality of each patient to enhance the development of hypnotic amnesia. They disclose interesting mental phenomena which are usually overlooked in the usual experimental situation. These phenomena may also account for some of the unreliable findings of the typically standardized and statistical approach, where the significance of individual differences and the psychodynamics of each individual trance situation are presumably neutralized or controlled rather than directly utilized, as they can be in the clinical situation.

A case will then be made for conceptualizing hypnotic amnesia in clinical practice as "state-bound." We will conclude with a summary of the very important place of amnesia in hypnotherapy.

## **AMNESIA FLUCTUATING IN TIME AND PLACE**

### **Amnesia by Distraction**

*Example 1.* This first example centers about a subject who had often been used for demonstration purposes and who occasionally delighted in deliberately recalling past hypnotic experiences to prove that there was no such thing as hypnotic amnesia. One morning Erickson found him relating to Erickson's secretary a detailed account of the

hypnotic demonstration in which the subject had been used the previous evening. Erickson's appearance somewhat embarrassed him, but he was immediately reassured that Erickson would be most interested in discovering how adequately he could recall those events. Thereupon, directing his full attention to Erickson, the subject proceeded to give a remarkably complete account of the entire demonstration. During his running narrative Erickson's secretary, without the subject's knowledge, took complete notes. Several days later Erickson gave the typewritten account to the subject with the request that he read and correct it. As was discovered later, he understood Erickson's request to mean merely that he was to proofread a manuscript, a task he had often performed for Erickson. After reading for several minutes he suddenly remarked, "This is most interesting." Since Erickson could not understand his comment, he made no reply. The subject continued his reading and then expressed the wish that he could have seen the demonstration and that he would like to know who the subject was. Not fully comprehending these remarks, Erickson evasively replied that it was just one of his hypnotic subjects.

On a subsequent occasion he was handed the same manuscript to read, but he immediately recognized it as one he had already read. Upon Erickson's insistence, however, he reread it, remarking that it was sufficiently interesting to be worth reading a second time, but he was obviously rather curious about Erickson's insistence. This same procedure was repeated on several more occasions, but it succeeded only in arousing his curiosity as to Erickson's purpose. He even advanced the idea that Erickson was trying indirect suggestion on him so that he himself might give a similar demonstration sometime. At no time did he become aware that it was an account of his own hypnotic experience.

On a still later occasion Erickson rehypnotized him deeply and questioned him about what had happened to him in reference to that specific demonstration. He immediately manifested a full understanding of the total situation and simply explained that after his narration of that experience he had forgotten it completely at a conscious waking level. Hence he had been able to read the typewritten account with the full conscious belief that it concerned someone else. When asked if that amnesia at a conscious level of awareness would persist in the future, he replied that it probably would unless Erickson gave him instructions to the contrary.

No such instructions were given, and, although the subject has since spontaneously recalled various experiences of subsequent trances, this particular amnesia still persists. Nor has additional reading of the account done more than remind him of his previous readings.

To summarize, a hypnotic subject recalled in detail a prolonged hypnotic experience and described it adequately to others. Subsequently he developed a spontaneous amnesia, not only for the hypnotic experience itself, but also for the conscious waking experience of recalling and verbalizing it. This amnesia persisted, and even the record of his performance aroused no memories. Nevertheless, in a new trance state full understanding was found, but in the subsequent waking state the amnesia was again present.

A spontaneous amnesia together with full recall of trance events in another trance constitutes the classical evidence for hypnotic amnesia; there is a continuity of memory from one trance to another and from one awake state to another, but there is an amnesia between trance and awake state. What is unusual in this account is the fact that the subject apparently had a full memory of all trance events in the awake state until he developed a spontaneous amnesia at a later time.

The relevance of this example of hypnotic amnesia developing at a later time, after a full recall of all trance events had taken place in the awake state, for experimental work is obvious. The typical research design testing for hypnotic amnesia immediately upon trance termination misses the spontaneous and suggested amnesias that develop at a later time.

Erickson, in fact, makes it a routine practice not to talk to the patient about trance events immediately upon awakening. The trance state persists for a few moments after the appearance of wakefulness. Questioning during this period frequently permits full recall. Erickson typically engages the patient in casual conversations, anecdotes, and shaggy dog stories very remote from the hypnotic experience for a while after trance termination to effect an *amnesia by distraction*. Alternatively Erickson will sometimes “rush” a patient out of the office to avoid talk about trance. He will distract and do just about anything he can to make the waking situation very different from the trance situation and thus promote amnesia.

### **Amnesia by Indirect Suggestion**

*Example 2.* Another example illustrating the development of a suggested amnesia at a later time and place after the subject had actually rehearsed all trance events in the awake state is as follows:

A professional psychologist related to Erickson her history of failing to go into a deep trance with a number of different hypnotherapists. She claimed that an amnesia for all trance events would be a satisfactory criterion of trance depth. She very much wanted to be surprised by her amnesia. Erickson acknowledged her story with the compound waking suggestion, “You haven’t failed this time since we haven’t started yet.” This is a favorite approach with Erickson: The suggestion contained in the first half of the sentence, “You haven’t failed this time,” tends to be accepted when associated with the obvious truth of what follows, “since we haven’t started yet.”

Erickson then proceeded to fixate her attention: “You haven’t looked at this glass paperweight before, therefore you don’t know what effect it will have on a deep trance.” This is another compound suggestion: This time an obvious truth is in the first half of the sentence, with a suggestion implying deep trance in the second half. Erickson then proceeded with a typical induction which included a 20-minute period during which the psychologist was instructed to go deeper all by herself. Immediately upon awakening the dialogue went as follows:

Subject: I was in a pretty deep trance, but I remember everything.  
Erickson: Isn't that all right?  
Subject: I expected an amnesia.  
Erickson: When?  
Subject: Immediately.  
Erickson: Is it necessary that it happen immediately? Won't you be surprised when you find it has happened?

Thus Erickson implied the possibility of a later amnesia by the indirect suggestions contained in his questions. His last comment, "won't you be surprised . . ." is an effort to utilize her expressed wish to experience a surprise.

The psychologist then verbalized all trance events to prove she had no amnesia and actually rehearsed them on her long drive home from Arizona to California. On arriving home she began writing a letter to Erickson stating she still recalled all trance events but left the letter unfinished when she went to bed. The next morning she awakened with an amnesia for all trance events, even though she recalled that she had been to Arizona to visit Erickson.

It will be noted that while this was a suggested amnesia, it was indirectly suggested. This type of indirectly suggested amnesia is vastly more effective for clinical purposes than the baldly asserted direct suggestions used in most experimental work (e.g., the Stanford Hypnotic Susceptibility Scale, Form A, uses the following direct suggestions: "You will have difficulty in remembering; you will have no desire to try to recall . . ."). When such direct suggestions had been used in this patient's previous hypnosis work with other therapists, they were conspicuously ineffective in producing amnesia.

The reason for the greater effectiveness of indirect suggestions may be formulated as follows: In most trances some consciousness is invariably present in the form of an observer attitude; the subject is in part lost in the experience, but in part the ego is quietly observing what is happening, just as it can in dreams (Rossi, 1972 a, b).

When a direct suggestion for amnesia is given, the observing ego takes note of it, just as it quietly takes note of most direct suggestions. Having noted the suggestion, the ego later has the power of choice as to whether or not the suggestion shall be carried out. When the subject has this awareness of a suggestion, he can debate with himself regarding its merits and decide about carrying it out. When a suggestion is made indirectly, however, even the observing ego tends to miss the fact that a suggestion has been given. With little or no awareness of the suggestion there is little or no ability to debate and negate it. Indirectly administered suggestions are programmed more easily into preconscious or unconscious levels and can then emerge more naturally in the patient's ordinary course of behavior.

## **Amnesic Material in Dreams**

*Example 3.* This example concerns a graduate nurse who was hypnotized on many occasions and invariably had a spontaneous amnesia for all trance events. Even the reading of a full stenographic account of her trance behavior would not awaken a sense of recognition for the items described. Upon being rehypnotized, she would disclose a full recollection of the hypnotic experience, but upon awakening the amnesia would again become manifest.

One day this subject approached Erickson and reported that she had a most interesting dream and proceeded to give an adequate account of a previous hypnotic demonstration before a group. Full notes made of her dream and subsequently compared with the stenographic account of that demonstration proved the correctness of her dream account.

Uncertain as to her purpose in such a communication, Erickson inquired cautiously as to the possible relationship of this dream to hypnosis. She explained that she always dreamed quite vividly for some nights following hypnotic trances, but this was the first occasion on which she had had so extensive and interesting a dream. Further questioning disclosed her to be entirely sincere in her belief that her account was only a dream and that Erickson would naturally be interested in it for psychiatric reasons. Asked why she knew her account to be a dream and not the recovered memory of a forgotten trance, she explained that dreams are characterized by a quality of unreality. This unreality permitted unreasonable things to occur. And in her dream she and Erickson had been alone in a large room in which there had suddenly and inexplicably appeared an inconstant audience which came and went, or grew large or small for no apparent reason, and which sometimes included people she knew definitely could not have been at a hypnotic demonstration.

No effort was made to explain that these peculiarities of the audience, as the stenographic account itself disclosed, really resulted from the hypnotic suggestions she had been given. For some time the subject was encouraged to report her dreams. Further investigation disclosed that in the trance state she had an adequate understanding of her dreams as indirect recoveries of trance memories. However, specific hypnotic instruction had to be given for her to recall in the waking state both the trance experience and the dream revival of it before she could go through a slow process of fusing them into a single understanding.

In summary, this hypnotic subject developed spontaneous amnesia for trance experiences but spontaneously recovered that amnesic material in the form of dreams. She thus had a complete amnesia for one experience (trance) and a full awareness of an entirely different kind of an experience (dream) with an identical content.

*Example 4.* Another subject was found who reviewed in her dreams many events of the trance session. She was aware, however, of the nature of her dreams and purposely utilized dream activity to overcome hypnotic amnesia. Her explanation was that she had an intense curiosity about what occurred in trance, but her hypnotic amnesia had constituted an effective barrier until she spontaneously dreamed about a trance session

and recalled the dream the next morning. In reviewing the dream she became aware that it was a valid recollection of trance events. Thereafter, whenever she wished to know what she had done in a trance state, she circumvented the hypnotic amnesia by dream activity.

Further investigation disclosed that her dreams were much less extensive than the first subject's, and that the dream content related only to those things of most interest to her. When this was pointed out to her by having her read a complete stenographic account which contained much material she did not recall, she responded that night with a more extensive dream. In this dream she recovered approximately all of the details of another trance experience.

The behavior of these subjects who circumvented hypnotic amnesia by dream revivals is most informative. It strongly suggests that neuro- and psychophysiological processes of normal sleep can be employed as a medium by which to gain access to experiences not available to the waking state. Hence, the assumption seems justified that extensive neuro- and psychophysiological processes are involved in hypnosis and in hypnotic amnesia.

### **Amnesia by the Displacement and Distortion of Memories**

*Example 5.* This example concerns an investigation of suggested hypnotic amnesia in an informal setting. The subject, in a deep trance, was instructed that after awakening he was to smoke a special Russian cigarette which would be furnished at a given cue. Upon lighting the cigarette he was to join enthusiastically in the general conversation with those present. Upon finishing the cigarette he was to extinguish the butt and then develop a complete amnesia for all occurrences between the giving of the cue and the discarding of the cigarette.

This sequence of events developed as intended, and notes were made of the subject's behavior and the topics of conversation. For some minutes after disposing of his cigarette the subject seemed to be self-absorbed. These few minutes of self-absorption may be understood as a spontaneously generated posthypnotic trance (Erickson & Erickson, 1941), which was required for the profound neuropsychological changes to effect the suggested amnesia. Then, suddenly, he joined in the conversation of the group. Shortly the topic of smoking was raised, the subject was questioned about his habits, and then, in a progressive and systematic fashion, he was questioned more and more closely about the events of the presumably amnesic period.

At first no evidence of any recollections could be secured from him, but after some 30 minutes of insistent questioning with extensive use of the notes made, particularly those relating his expressed opinions on controversial topics, the subject suddenly began to recover his memories of the entire period. When an adequate recall finally had been obtained, he was asked to account for his previous failures to recognize items that had suddenly become familiar. He proceeded by offering various rationalizations and then began to insist, with obvious sincerity, that he had not experienced amnesia at all. He claimed he had merely simulated it by evading questions, misunderstanding remarks, and

by deliberate suppression. Checking these assertions against the notations that had been made of his actual behavior, however, suggested the probability of a retrospective falsification.

The experiment was then apparently discontinued, and more than an hour was spent in casual conversation on other topics. Finally references were again made to the events of the amnesic period. It was immediately apparent that the subject was confused by such references, and he was again amnesic for the entire period between lighting and extinguishing his cigarette. This second amnesia also included the questioning that led to the breakdown of the original amnesia and all his assertions and rationalizations about it.

The subject now believed that on another occasion three months earlier, in a different social group (that included only one of the present group) and under entirely different circumstances, he had smoked a Russian cigarette while discussing the conversational topics about which he had just been questioned. Extensive inquiry about this new belief disclosed that the content of the amnesic experience had been displaced in time and setting; it had been interpolated into an older and different experience. In this new belief the subject could not be shaken.

In summary, this subject developed an extensive amnesia, recovered the amnesic material under mass social stimulation, and then unaccountably developed another amnesia that included both the original material and the associated experience of recovering it. He then recovered the original amnesic material through a total displacement of it onto an entirely different past experience.

On the surface this subject's amnesia sounds a bit like hypnotic "source amnesia" (Evans & Thorn, 1966), wherein the subject can recall material learned in trance but forgets that he learned it under hypnosis. Source amnesia has been frequently contrasted in the recent research literature with the more conventional "recall amnesia." In one unusually protracted period of naturalistic observation Erickson explored the dynamics of both recall and source amnesia; he made an extensive effort to discern exactly what happens to the amnesic material and some of the factors effecting its recall.

*Example 6.* This man, 25 years old, of superior intelligence and decidedly capable as a hypnotic subject, had been used on many occasions for both experimental and demonstration purposes. After extensive experience he developed the firm belief, expressed privately to others rather than Erickson, that hypnotic amnesia was entirely a matter of voluntary suppression of memories and of deliberate redirection of attention to other thoughts. In support of this conviction he frequently recalled and related secretly to his friends accounts of his trance experiences. Chance discovery by Erickson of this practice suggested the possibility of naturalistic investigation of hypnotic amnesia free from the handicaps and limitations of an artificial laboratory setting and the distortion of results that might arise from purposeful cooperation by the subject.

Accordingly, arrangements were made with his friends to report in detail to Erickson any of the subject's accounts of his trance experiences. These could then be checked against

the original complete stenographic record usually made of this subject's hypnotic work, sometimes without his knowledge. Most of the 23 observers who participated in this study were college-educated, and in addition the majority were trained in psychology, medicine, or psychiatry.

The findings obtained by this procedure varied greatly as a function of the associative situations, the subject's relation to the observers, and the intrinsic interest the subject had in the trance experiences. Time itself did not seem to be important, and the type of material, whether emotional or nonemotional, did not seem to have any remarkable effect. For convenience the results will be discussed under seven headings.

*1. Recall of trance events dependent upon associative situation.*

While often a remarkably complete account of a hypnotic session could be obtained, it was found that the completeness of this depended upon certain factors. The closer the subject was to the trance situation in the matter of associations, the more extensive was the account. The most extensive accounts were obtained by observers present or believed by the subject to have been present at the time of the trance, and when the subject was interviewed in the actual physical setting in which the trance state had been induced and the trance behavior elicited. An account secured in the same room where the trance had taken place was more complete than one secured in a similar room. The same building permitted a more adequate account than a totally different physical setting; similarly, observers actually present during the trance were given more complete accounts than those not present. Time itself, within reasonable limits, did not seem to be a significant factor. Furthermore, an account elicited in the physical setting of the trance situation by an observer present at that time could not be secured in the same detail subsequently by the same observer if the questions were repeated in a situation other than the trance setting. Yet, upon return to the trance setting the same observer could obtain a repetition of the first detailed account. Repeated efforts served to confirm this observation.

*2. Variation in recall with different observers.*

Accounts given to different observers separately often varied extensively in details. When a repetition of an account was called for in the presence of two or more observers to whom the account had already been related separately, there was usually a recovery of still further material but without awareness that more was being related. Occasionally, however, the account would be definitely abbreviated and the subject would not remember details previously related to one or the other or both of the observers separately. The subject was not aware of these discrepancies. There were frequently omissions which seemed to be definitely associated with one or another of the observers. In the presence of certain persons the subject seemed to be unable to recall certain items readily accessible in the presence of other persons.

*3. Substitution of detailed partial accounts for total recall.*

Another frequent finding was the substitution of an extremely detailed recollection of minor details for a comprehensive account of the total trance events with no realization by the subject that other activities had occurred. For example, a remarkably vivid detailed

account was given of a checker game with no apparent evidence of awareness of the wealth of other activities that had preceded and followed the checker game.

*4. Telescoping of two or more events or sessions.*

Often the events of several different trance sessions, separated by as much as a period of a week, would be recounted as the narrative of one single trance session. Especially was this true when the trances had been induced in the same general physical setting. For example, in telescoping into a single account the events of two separate trances, the subject described his activities in relation to two persons. His account of the actual activities was accurate in all details, except for the fact that one of the two persons had left the hospital a week before the other had arrived, hence his account placing them together in the same room was obviously inaccurate. Confronted with this fact the subject slowly realized its truth but nevertheless continued to "remember clearly" making certain remarks to one of them and making other remarks to the other sitting in an adjacent chair. Checking of the original records disclosed that he had made the remarks he claimed and that he did remember correctly the chairs which had been occupied and their relative positions. Despite earnest effort on his part he was not able to reconcile his "memories" with his knowledge of the actual facts. This distressed him seriously and resulted in an apparently total amnesia for both the trance sessions. Numerous instances of this occurred repeatedly.

*5. Failure to distinguish between hallucination and fact.*

Another distortion of marked interest was the substitution of hypnotically suggested hallucinations for factual items. A typical example was when a footstool was presented to the subject while in trance with much elaborate description as a rocking chair which was finally offered him as his seat for the rest of the session. Near the close of the session care was taken to offend him slightly as a measure of arousing antagonism that would tend to preclude the development of hypnotic amnesia. This was followed shortly by insistent commands that he develop a total amnesia for all events of that session. Some days later, with much pleasure, he related to his friends an adequate account of the entire session with the one major inaccuracy that the footstool was described as an actual rocking chair, an understanding from which he could not be shaken.

Similarly, in another trance session he was induced to hallucinate a colleague of Erickson's entering the room, borrowing a book, and then leaving. Subsequently, in recounting the events of the trance, he related this as a factual occurrence. The measure of repeating this procedure by having him hallucinate various colleagues who were on vacation at the time led to several more instances of hallucinatory experiences reported as factual occurrences. Confronted by this fact on one occasion he became distressed and confused, offered various rationalizations, and finally developed an apparently total amnesia for the trance events and for the waking experience of having given an account of them.

Much later he was again hypnotized and inquiry made into one such instance. The subject recalled the whole experience and the original suggestions. He was distressed by Erickson's detailed knowledge of his posttrance behavior, but cooperated by explaining that at the time he had related the story to his friends, he had believed fully in its truth. When they confronted him with the facts, he had at first been very much puzzled and was unwilling to think about the matter further, and then forgot the entire thing. He explained further that as he now viewed the matter, the hallucination had been so clear and vivid that he had, in the original trance, forgotten all about the experience of having the hallucinations suggested to him. Hence, in relating the trance events to his friends he had not recalled those original suggestions because they were doubly forgotten—that is, forgotten in the original trance state and then forgotten a second time in consequence of the hypnotic amnesia.

#### *6. Persistent amnesia for certain trance experiences.*

Although the subject demonstrated an ability spontaneously to recover memories of many trance experiences, sometimes all of those belonging to a single trance session, there were numerous instances where he failed to recover certain memories. On these occasions simple or leading questioning would serve to assist him materially in recovering the forgotten items. However, there were many instances of persistent amnesia for certain trance events that did not yield to any of the measures employed to facilitate recall. Even relating the amnesic material to the subject would not elicit recognition from him. Some of this persistent amnesic material was emotional in character, but just as frequently it seemed to be entirely neutral.

The only measure that was at all effective in these instances was rehypnosis and questioning about the forgotten material. Invariably he would readily recall it in the trance state. After awakening and relating the events of this second trance, he might gain access to the previously inaccessible memories. Sometimes, however, he would remember all of the trance events except those concerning the previously inaccessible memories, and thus there would continue a persistent, conscious amnesia despite his ability under hypnosis to recover all forgotten material.

#### *7. Development of amnesia after full recall while awake.*

Another frequent observation was that after having awakened and related his memories of a trance session, he would spontaneously develop an amnesia for both the trance events and the fact of having related them. An illustrative instance of this phenomenon with another subject was reported above as Example 1.

### **Structured Amnesia (Amnesia by Reorientation in Time)**

*Example 7.* While Erickson was carrying on an experimental study, a 27-year-old female interne volunteered her services as a hypnotic subject. Her offer was tentatively accepted with the explanation that the experiment might require too much of her time and hence preclude her participation. An appointment was made to meet her in the laboratory where she could avail herself of books to pass away time until Erickson's experimental work permitted him to see her. She kept the appointment and read until Erickson was free. She

then proved to be a most capable subject, and in the hypnotic trance full arrangements were made with her to report regularly at the laboratory for the experimental work, which would continue over a period of many weeks. At that time and on all subsequent occasions she was instructed to have a posthypnotic amnesia for all events of the trance sessions.

She kept all appointments, usually arriving about a half-hour early and devoting the waiting period to study. *When the time came to hypnotize her, use was made of a posthypnotic cue to induce the trance while she was reading. When the experimental work was completed, she was always returned and awakened carefully at the same desk where she did her reading and waiting for the experimental session to begin.*

Then one day in the staff dining room mention was made of a new hypnotic subject with whom Erickson hoped to work. Immediately she burst into an infuriated tirade, the burden of which was that a long time ago she had volunteered her services, that she had been put off with an evasive answer by Erickson, and that no effort of any sort had been made to utilize her services which she had offered in good faith. She declared that the least Erickson could have done was to offer her some explanation of why he did not consider her worthwhile as a hypnotic subject. Since this outburst of temper was not understood, and since another hypnotic session was scheduled for that afternoon, no explanation was offered her. Furthermore, it was considered undesirable to give her an explanation because it might interfere with the experiment in progress.

That afternoon she appeared at the laboratory at the proper time, was decidedly short in her greeting of Erickson, and continued to read the book she was studying. However, at the posthypnotic cue she developed a deep trance, and the experimental work was continued. No effort was made to explore the situation. For an additional two weeks she was seen regularly for experimental work. During this period of time she continued to be unfriendly and resentful in her attitude toward Erickson in social situations.

When the experiment was completed, however, inquiry was made in the trance state concerning her outburst of temper and her unfriendly attitude toward Erickson. Her explanation was simple. She stated that she had no unfriendly feeling or resentment toward Erickson while she was in the trance because she knew that she was participating in the experiment. However, when she was awake she knew nothing at all about the experiment or the fact that she was contributing, hence she believed fully in the waking state that her offer had been disregarded. Therefore, she was left in the uncomfortable position of believing in the waking state that she was not acceptable as a hypnotic subject, and there was nothing she could do to correct this misunderstanding because of the posthypnotic suggestion of amnesia for all trance events. When she was asked what she wished Erickson to do, she stated that she felt all explanation should be postponed until the experimental work was completed, since, obviously, Erickson felt it unwise to apprise her of the actual situation. She was asked if she wished Erickson to give her a full explanation upon the completion of the experiment or if it would be better to let events follow the natural course of development. After thinking this over, she suggested that the latter course might be the better to follow. She was again dismissed in the usual way.

Her unfriendly attitude toward Erickson continued for another two weeks, when again she lost her temper in another situation similar to the first. With many apologies Erickson attempted to explain the total situation to her. She was most critical of the explanation and rejected it completely. She declared that she knew that she had never been hypnotized, and she explained her regular appearances in the laboratory as resulting from her self-imposed course of study. The only significant admission secured from her was the statement that she felt she had gained very little from her studies despite the great amount of time she had spent, and she explained Erickson's invariable presence there as coincidental and as not related to her.

When finally it became apparent that no amount of argument or discussion could correct her understandings, a suggestion was offered that a trip to the laboratory and an examination of the experimental records might serve to prove to her that she had been acting as a subject. She denounced this suggestion as a futile, useless proposal but finally consented to examine Erickson's records. These she was shown in full detail. Thus, she was forcibly convinced that she had been acting as a subject over a period of many weeks. However, as she explained, this knowledge, while acceptable as factual, did not give her any feeling of inner conviction that she had been a subject. She then asked that she be hypnotized so that she could learn if she could be hypnotized. She also suggested that use be made of hypnotic suggestion to convince her of the facts of the total situation.

She was promptly hypnotized and then instructed to abolish the posthypnotic amnesia and to recall in chronological order the entire course of events for which she had developed an amnesia. Upon awakening a casual conversation was initiated during which she was reminded of her temper outbursts. Then she was asked to give an account of any memories that she might recover. To her great amazement she experienced a sudden flow of recollections and associations, which she related in detail. These were discussed fully with her.

The reason for this deep experience of hypnotic amnesia will be lost on the uninitiated reader who does not understand the significance of the italicized material in the second paragraph. This italicized procedure was instrumental in effecting a carefully "structured hypnotic amnesia." The literature on hypnotic amnesia generally classifies two basic types according to the manner in which they are generated-spontaneous and suggested. Erickson is here utilizing a third way of generating hypnotic amnesia: *The structured amnesia is effected by awakening the subjects in a manner that reorients them to the exact place, time, and associative content of consciousness where they were when they entered trance.* The total situation is so structured that the trance period falls into a lacuna between two events structured to be so identical that consciousness does not recognize them as two and is thus amnesic for all that occurred between them. Erickson (1964) has described it as follows: "This measure of reorientation in time by reawakening trains of thought and associations preceding trance inductions, in this author's experience, is far more effective in inducing posthypnotic amnesia than direct forceful suggestions for its development. One merely makes dominant the previous thought patterns and idea associations [p. 299]." Because the subject may have a feeling of duration or the passage

of time (Erickson, Haley, & Weakland, 1959), even though amnesic for events, it would seem that the more general term *structured amnesia* is a more accurate description than *reorientation in time*.

### **AMNESIA BY INTERRUPTING THE SPONTANEOUS POSTHYPNOTIC TRANCE**

This category is another of Erickson's original methods of evoking hypnotic amnesia. It is mentioned here only for the sake of completeness but will not be illustrated since it has already been adequately described (Erickson & Erickson, 1941). In brief, Erickson has established that the execution of a posthypnotic suggestion spontaneously evokes a brief hypnotic trance while the posthypnotic act is taking place. If subjects are interrupted and prevented from executing the posthypnotic act, they remain in trance, and this posthypnotic trance can be utilized to interpolate new hypnotic work. Subjects are then allowed to complete the original posthypnotic act and then awaken with a spontaneous amnesia for the interpolated events.

### **THE ALTERNATION OF HYPNOTIC AND NATURAL AMNESIA**

*Example 8.* A patient under therapy for a personality problem was found to have an extensive amnesia for a significant life experience. Exploration in the hypnotic state finally elicited a complete account of that experience, as was subsequently verified. When she was awakened from the trance, however, she continued to be amnesic for that experience and also for the fact of having recovered the memory of it while in the trance state. This occurred despite the fact that in the trance state she had reacted to the recovered material with much emotional intensity.

When progress of the therapy permitted, systematic suggestions enabled her to recover her memories of that trance experience in full. She gained access to the details of the forgotten experience, but she recovered that amnesic material as an account of what she had recollect ed in the trance rather than an actual memory from the past. She recognized the trance experience as unquestionably true, and she was able to add further details about it while in the waking state, but it still had no vital meaningful significance to her except as a recent trance experience of recalling something she knew to be true but which she could not recognize emotionally as really belonging to her past life.

Rehypnotized, she again recalled the past experience as a vital occurrence in her life and was greatly distressed emotionally by it. Reawakened, she had an amnesia for this second trance but recalled having been awakened from the first trance and recollecting the experiences belonging to it. Her problem then became, as she verbalized it:

What I have really got to do now is to remember that it happened when it did and not remember it just as something I remembered about when I was in a trance. Right now, it's just something that I recall remembering about even though I really know that it must all have happened. But knowing that it must have happened doesn't make that experience mean anything to me. It's just like reading

something about yourself that you know is true but which you have just completely forgotten. In the trance, I knew it did happen, that's why I cried so. But now when I'm awake, all of it is just something that I remembered in the trance, and that's all it is.

When further therapeutic progress had been made, it became possible for the patient to recall the forgotten experience while in the waking state and to react to it emotionally as she had originally in the trance state. This waking recollection, however, was accompanied by a spontaneous amnesia for all developments centering around recall in the first trance. There was thus a spontaneous alternation of hypnotic and natural amnesia.

Subsequent to her recovery, rehypnosis disclosed her to have a full understanding of all that had occurred. She now reported her feeling that only the waking account had been of sufficient importance to warrant recalling. The two previous trance recollections were regarded simply as preparatory measures in which she had been enabled to assemble all of the forgotten data and to prepare herself for a waking recollection.

This is a frequent finding in hypnotic therapy. Amnesic memories may be recovered in the trance state and reacted to at the time, but the total experience of this does not carry over into the waking state. When, subsequently, the patient recovers the amnesic material in the waking state, preliminary trance activity becomes unimportant to the personality and is not recollected. As one patient explained:

It's like baking and serving a cake. You remember doing that, but you never bother to remember about studying the recipe, mixing the batter and that sort of thing. All of that's very important, probably even more important than serving the cake, but you just remember that you served the cake that you baked. It's the same way when it comes to remembering forgotten things in a trance. When you had me remember while I was asleep those things I had forgotten, I suppose I was just getting them in order, and arranging them, and getting all set so that when the right time came when I was awake I could give them out. Then, when I remembered them when I was awake, just getting them ready to remember wasn't important any more so I just forgot about what I did in the trance just like you forget which bowl you mix an important cake in.

To summarize this account briefly, the patient originally had an amnesia of spontaneous origin for a traumatic experience. In hypnosis the factual data were recovered, but the patient awakened with no recollection of the trance work. When the amnesia for the trance activities was abolished in another trance, she recovered the factual memories of the past experience and recognized their validity, but found that they lacked all meaningfulness to her as a personality. When she later recovered in the waking state the same amnesic material as a personally meaningful past experience, she developed a secondary amnesia for those previous trance activities in which she had first recalled the amnesic material. In clinical practice it is frequently found that a spontaneous amnesia

develops for trance work after the memories originally recovered in trance are integrated in the conscious personality.

That hypnotic amnesia and amnesia as naturally experienced are two entirely different phenomena is strongly indicated by the observations reported in this example. There can exist simultaneously, but totally independently of one another, two types of amnesia for the same items of fact. The abolition of one of the two amnesias had no effect upon the other, and each had to be recovered as a separate experience. This is an observation of much significance in relation to many failures of hypnotic psychotherapy. It is not enough simply to recover amnesic material in trance. Such trance work is often only preparatory to the full integration of the material by the conscious personality in the awake state.

### **THE “STATE-BOUND” NATURE OF HYPNOTIC AMNESIA**

Taken together these clinical and naturalistic investigations strongly suggest that hypnotic trance is an altered *state* of consciousness and amnesia, in particular, is a natural consequence of this altered state. Recent research in “state-dependent learning” lends experimental support to the general view of all amnesias as being “state-bound.” We can now understand hypnotic amnesia as only one of a general class of verifiable phenomenon rather than a special case. Fischer (1971) has recently summarized the relation between state-dependent learning and amnesia as follows:

Inasmuch as experience arises from the binding or coupling of a particular state or level of arousal with a particular symbolic interpretation of that arousal, experience is state-bound; thus, it can be evoked either by inducing the particular level of arousal, or by presenting some symbol of its interpretation, such as an image, melody, or taste.

Recently, some researchers had 48 subjects memorize nonsense syllables while drunk. When sober, these volunteers had difficulty recalling what they had learned, but they could recall significantly better when they were drunk again. Another scientist also observed amphetamine-induced excitatory, and amobarbital-induced, “inhibitory,” state-dependent recall of geometric configurations. His volunteers both memorized and later recalled the configurations under one of the two drugs. However, while remembering from one state to another is usually called “state-dependent learning,” extended practice, learning, or conditioning is *not* necessary for producing “state-boundness.” On the contrary, a single experience may be sufficient to establish state-boundness.

Deja vu experiences and the so-called LSD flashbacks are special cases of the general phenomenon of state-boundness. Note that neither focal lesions nor molecules of a hallucinogenic drug are necessary for the induction of a flashback—a symbol evoking a past drug experience may be sufficient to produce an LSD flashback.

It follows from the state-bound nature of experience, and from the fact that amnesia exists between the state of normal daily experience and all other states of hyper- and hypoarousal, that what is called the “subconscious” is but another name for this amnesia. Therefore, instead of postulating one subconscious, I recognize as many layers of self-awareness as there are levels of arousal and corresponding symbolic interpretations in the individual’s interpretive repertoire. This is how multiple existences become possible: by living from one waking state to another waking state; from one dream to the next; from LSD to LSD; from one creative, artistic, religious, or psychotic inspiration or possession to another; from trance to trance; and from reverie to reverie [p. 904].

We would submit that hypnotic trance itself can be most usefully conceptualized as but one vivid example of *the fundamental nature of all phenomenological experience as “state-bound.”* The apparent continuity of consciousness that exists in everyday normal awareness is in fact a precarious illusion that is only made possible by the associative connections that exist between related bits of conversation, task orientation, etc. We have all experienced the instant amnesias that occur when we go too far on some tangent so we “lose the thread of thought” or “forget just what we were going to, do,” etc. Without the bridging associative connections, consciousness would break down into a series of discrete states with as little contiguity as is apparent in our dream life.

It is now a question of definition and further empirical work as to whether these states are discrete and different in mental content alone or whether more gross physiological indicators can be used in defining them. A drug obviously introduces a physiological change that may or may not be measurable with current techniques. With hypnotic trance the case is more equivocal. The case is further complicated by the fact, as Fisher indicates above, that once an altered state is produced, “symbolic” associations alone are sufficient to reinvoke it.

How can we reconcile this special state theory of hypnotic trance with the many informative experimental studies which support the alternative paradigm (Barber, 1972) of hypnosis as a “responsive waking state” that is not discontinuous or essentially different from normal ordinary consciousness? In many of his papers Erickson (1939, 1952, 1966) has emphasized that deep or really satisfactory trance experience is dependent upon the ability to subordinate and eliminate waking patterns of behavior. To achieve this end Erickson evolved many new techniques of induction and stressed the need for careful “hypnotic training” whereby the individuality of each subject was carefully taken into account to maximize the presence of involuntary or autonomous behavior in trance with as little participation of waking patterns as possible. Erickson rarely gives therapeutic suggestions until the trance has developed for at least 20 minutes, and this only after hours of previous hypnotic training.

In actual practice it is admittedly difficult if not impossible to eliminate *all* waking patterns. This is particularly true in the typical experimental study, where standardized instructions and direct suggestions are utilized with little or no extensive hypnotic

training directed to the elimination or at least the mitigation of waking patterns in trance. The presence of many verbal, sensory, perceptual, and psychodynamic associations common to both the trance and waking situation in most experimental studies bridges the gap between them and further reduces their discontinuity. We would therefore submit that the alternative paradigm, which views the trance and waking conditions as more or less continuous, with no evidence of a “special state of trance,” is correct in evaluating the typical experimental situation. It does not, however, adequately conceptualize those clinical situations where the skill of the therapist together with the needs of the patient interact to produce the striking discontinuities between trance and the normal state of consciousness that are so suggestive of special state theory.

The issue is analogous to the heated controversy about the fundamental nature of light as continuous (waves) or discontinuous (bundles) that plagued physicists of the past generation. In practice it has been found helpful sometimes to think of light as waves and other times as bundles. The most adequate conceptualization, however, is through mathematical symbols that cannot be meaningfully related to in terms of everyday associations on the verbal and imagery level. Likewise in clinical practice it may be helpful to conceptualize and stress those antecedent and mediating variables that promote discontinuity between trance and waking state, while in experimental work there may be more theoretical interest in dealing with the continuities.

## **UTILIZING AMNESIA IN HYPNOTHERAPY**

The practical problem of coping with the bridging associations between trance and waking state takes us directly to Erickson’s utilization of amnesia to facilitate the effectiveness of hypnotherapeutic suggestion. As implied in our earlier discussion of the superiority of indirect over directly administered suggestions, the basic problem of securing reliable results from suggestions is to “protect” them from the doubting, debating, and potentially negating effects of the patient’s conscious sets and attitudes. Patients are patients because of the erroneous and rigid sets that govern their maladaptive behavior. By administering suggestions indirectly so they are not recognized by consciousness, the suggestions are able to enter the patient’s preconscious and/or unconscious and are there utilized in an optimal manner for the patient’s overall development. Hypnotic amnesia is thus a convenient approach for coping with consciousness and protecting therapeutic suggestions from the limitations of the patient’s conscious sets. Hypnotic amnesia effectively breaks the bridging associations between the trance and waking situation and thus seals hypnotic suggestions from the potentially negating effects of the patient’s conscious attitudes (Erickson, 1954).

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# Literalness: An Experimental Study

Milton H. Erickson

Unpublished manuscript, circa 1940s.

A form of experimental inquiry, simple in character and effective in eliciting remarkably different results from waking and from hypnotized subjects, has been carried on over a period of more than 25 years on many hundreds of subjects. The experiment was based originally upon the observed literalness of hypnotic subjects when responding to instructions, questions, or suggestions. Such literalness of response is decidedly infrequent in everyday living—when it does occur then is suspect of being a deliberate play, as it often is. Innumerable persons were asked in the ordinary waking state such questions as: “Do you mind telling me your name?” “Do you mind standing up?” “Do you mind reading this?” (handing them a card bearing a typed sentence such as, ‘This is a nice day.’) “Do you mind taking a step forward?” “Do you mind sitting in this other chair?” The usual response received from subjects in the ordinary waking state—whether friend, acquaintance, or even a total stranger—was almost always an acquiescence to the *implication* of the question, not a simple reply to the actual question. Thus, the awake subject would actually say his name, stand up, read the card, or whatever. In exceptional cases the response might be a challenging, “Why should IT” or an obvious rejection such as “I don’t want to,” or an ignoring of the request, usually with a questioning or doubting facial expression.

Comparable questions with dozens of hypnotic subjects led almost invariably to a simple verbal affirmative reply *without any movement to acquiesce to the behavioral implications of the inquiry*. This was particularly true with somnambulistic subjects, somewhat less so with medium subjects, and slightly less so with subjects in the light trance. On rare occasions the reply would be complete inaction, explained upon request by the statement that they were comfortable as they were or that there was no need to do so. On the other hand, the waking subject would explain a negative response with the challenging, “Why should IT” or “I don’t want to,” or “It doesn’t make sense to do that.”

These repeated findings suggested the possibility of establishing the fact of a recognizable difference between waking and hypnotic behavior *without corrupting the experimental investigation by disclosing to the subjects that an experiment was being performed by a testing of specific behavioral responses or by asking for deliberate simulation of behavioral responses or any other intentional or planned distortion of experimentally elicited responses.*

With the formulation of this experimental inquiry, the project was carried out with many hundreds of subjects in the ordinary waking state.

These subjects fell into one of the following categories:

- (1) Those who had never been hypnotized and never were subsequently by the experimenter.
- (2) Those who had never been hypnotized, were used as subjects, and subsequently were hypnotized and used as subjects.
- (3) Those who had been hypnotized previously and were used as subjects, sometimes first in the waking state, and next in the trance state, and equally often by a reversal of this order of procedure.
- (4) Those who had been tested on the same occasion for both types of behavior, sometimes first in the trance, sometimes first in the waking state.
- (5) Those who had been tested in one or the other states first on a separate occasion with a following completion of the inquiry at a later date.
- (6) Those who were tested singly or in group situations, under both private and public circumstances, and in group situations where all present were hypnotic subjects but not necessarily all in a trance at the time.

The age distribution ranged from four to 80 years, and age was not found to be a factor. The sex distribution was essentially equal, and no sex differences were found. The subjects employed included Japanese, Chinese, Filippino, Hindu, Hawaiian, Indian, Negro, Caucasian, and such ethnic groupings as native Americans, Mexicans, Venezuelans, Scandinavians, Germans, English, French, etc. The one thing in common was that they understood English, some less well than others, but all subjects gave comparable results.

The educational levels ranged from grade school to doctoral degrees. Psychiatric patients, some of whom were psychotic but most of whom were neurotic, were employed. The results from this group were comparable to those from subjects not receiving psychiatric care. There were also inmates of penal institutions, but none of these varied from the ordinary population except for a greater number showing challenging non-compliance. Of these, more males than females were tested, but there were no recognizable differences except that there was less open aggressiveness on the part of the women.

As would be expected, total strangers were the most uncooperative. For example, a total stranger approached in an airport and asked, "Would you mind standing up?" could readily reply, "And what business is it of yours if I sit down or stand up?" The social ice thus engendered could easily be broken by the plausible statement, "I'm a physician, and my hobby is visually comparing sitting and standing heights, and if you ask people informatively, they invariably sit higher and stand higher instead of more naturally." Such an explanation usually led to ready compliance with the implications of the original request, but since the response was actually to the explanatory statements, it would not be included in the experimental results except as a rejection.

In the early years of the experimental study exact records were kept of age, sex, education, occupation, hypnotic history or sophistication, and experimental setting, but as the data accumulated it became progressively apparent that the important factors in the

experiment were (1) the state of ordinary waking awareness and (2) the existence of a hypnotic state. The results were enhanced by increasing depths of the trance state.

In all about 4,000 subjects were employed, of whom approximately 1,800 were in a hypnotic state. The greater number of nonhypnotic subjects arises from the fact that many subjects were employed who never became hypnotic subjects. However, it must be borne in mind that these two groups, nonhypnotic and hypnotic, are not mutually exclusive, since many subjects were used for both hypnotic and nonhypnotic experimentation. The reason for this was that behavioral differences between waking subjects and hypnotic subjects were found to be directly in accord with the existing state of awareness at the actual time of the experiment, whether hypnotic or waking. Previous experience with hypnosis had no bearing on the results. Subjects showing the typical waking response would subsequently manifest the typical hypnotic response, then again the waking response, and then again the hypnotic. The exceptions were those who were sophisticated in hypnotic behavior. Thus, a physician used first as a hypnotic subject gave the characteristic response and later the usual waking response. Shortly after the waking test he exclaimed in a startled fashion, "Doesn't that beat all? I was caught by the very test I use myself to see if my patient is in a trance." (Comment will be made on this later.)

Undoubtedly a major factor in the success of the experimental study was the fact that the test was always used as an extremely minor part of some other attention-commanding task. Thus there was no opportunity or occasion for direct critical thinking or analysis. For both hypnotic and nonhypnotic subjects, with the exception of total strangers, there was the implication that the experimental request was preliminary to some other more important task that was expected to follow.

The method of procedure was essentially the same for both waking and hypnotic states in a great variety of situations and under many different sets of circumstances. Also, the actual experiment was not always carried out by the experimenter but would be done at his secret request by a colleague who did not know the purpose. Perhaps the best example to illustrate the procedure is the following: At a lecture gathering, topic unannounced, the request would be made quietly of various people, "Would you mind telling me your name?" or "Would you mind standing up for a moment?" or "Would you mind sitting in that other seat?"

A lecture on therapy for the neuroses might then be presented with carefully calculated remarks leading to the introduction of the subject of hypnosis. This would lead to an offer to demonstrate hypnosis with several volunteers. Upon the induction of a trance, precisely the same questions would be put to the subjects as had been put to the members of the audience in the waking state. This would be done in a manner inaudible to the audience, and then the same questions would be directed to members of the audience not previously so questioned. Then the questions would be repeated to the subjects, this time so as to be audible to the audience.

Immediately the audience would become aware that the affirmative verbal response of the hypnotic subjects without responsive action was markedly different from the possibly wondering but silent responsive behavior of the waking subjects, who had promptly acted upon the implications of the questions rather than verbally offering a simple yes or no, as had the hypnotic subjects.

It was soon learned that even after this had been demonstrated, unexpected repetitions with the audience would elicit either complete or partial execution of the implied response before there would be realization of what was happening and consequent self-conscious inhibition of the acquiescent behavior.

It was also learned that somnambulistic subjects in full visual and auditory rapport with the audience could describe what waking persons did when so spoken to but did not apply that understanding to their own conduct when so addressed.

Nor did it invalidate findings to let the audience observe the behavior of both waking and hypnotic subjects without discussing it and then call upon observers who had been employed as waking subjects to act as hypnotic subjects. While they had observed behavior of others in both waking and trance states, and had so responded themselves in the waking pattern before trance induction, they had drawn no understandings or inferences of a governing character from what they had observed. In the trance state, they gave hypnotic responses, but in subsequent waking states, they continued to give waking responses. Nor did intellectual sophistication of hypnotic subjects serve to alter their characteristic behavior, but repetitions and instructions in the trance state would institute 'the waking pattern of behavior.'

As the experiments continued over the years, it was progressively confirmed that by making the experimental inquiry an incidental, minor, and hence unnoticed part of a larger activity, there could be a study of behavior in either the waking or the hypnotic states without the response in the one state of awareness influencing the behavior in the other state of awareness. Situations reasonably expected to lead the subjects to become sophisticated and thus to inhibit the natural response failed to do so completely. For example, the physician cited above, as well as other subjects subsequently employed repeatedly, invariably made a partial response before self-consciously inhibiting the waking responsive behavior. Yet, the physician continued to use this measure as a means of determining the presence of a trance successfully and knowingly.

## **THE RESULTS**

The following table does not give the total number of responses, since tabulation was discontinued when the consistency of results had been repeatedly noted. The experiment was continued as a testing measure with the hope of securing data on other aspects of hypnotic behavior, and the noting of data not in accord with that already recorded was not laborious. In other words, a greater proportion of variant responses were recorded than of the single positive results. This fact in no way significantly alters the overwhelming character of the positive data.

## **FIRST-TIME RESPONSES<sup>1</sup>**

<i>Waking State</i>	<i>Hypnotic State</i>		
	<b>Light Trance</b>	<b>Medium Trance</b>	<b>Deep Trance</b>
<b>3,000</b>	<b>350</b>	<b>300</b>	<b>250</b>

## **SECOND-TIME RESPONSES<sup>2</sup>**

<i>Waking State</i>	<i>Hypnotic State</i>		
	<b>Light Trance</b>	<b>Medium Trance</b>	<b>Deep Trance</b>
<b>1,800<sup>3</sup></b>	<b>350</b>	<b>300</b>	<b>250</b>

The experimental results may be classified as follows:

## **WAKING STATE**

- |   |     |
|---|-----|
| 1. Acquiescence by executing the implied request                      | 95% |
| 2. Challenge (Why should I?; Is it necessary? etc.)                   | 3   |
| 3. Rejection (by ignoring or a direct negation of the implied action) | 2   |

## **HYPNOTIC STATE**

### *Light Trance:*

- |  |    |
|--|----|
| 1. An utterance of "no" or a negative shaking of the head. <sup>4</sup>    | 80 |
| 2. The question of "Do you want me to?" or a comparable inquiry.           | 12 |
| 3. Answer of "I don't want to" or its equivalent                           | 3  |
| 4. Hesitant, sluggish, inadequate effort to acquiesce to implied question. | 3  |
| 5. Slow, uncertain, but actual acquiescence.                               | 2  |

### *Medium Trance:*

- |  |    |
|--|----|
| 1. An utterance of "no" or a negative shaking of the head.                 | 90 |
| 2. The question of "Do you want me to?" or a comparable inquiry.           | 1  |
| 3. Answer of "I don't want to" or its equivalent                           | 2  |
| 4. Hesitant, sluggish, inadequate effort to acquiesce to implied question. | 1  |
| 5. "Can't."  | 1  |

### *Deep Trance:*

- |  |    |
|--|----|
| 1. An utterance of "No" or a negative shaking of the head. | 97 |
| 2. The question of "Do you want me to?" or its equivalent. | 2  |
| 3. No response.  | 2  |

Occasionally a light- or a deep-trance subject would say, "Can't," and an occasional deep subject would say, "I don't want to," "I'm fine," or a comparable response.

Special further experimental study was conducted with a large number of both types of subjects to determine the effect of repeated experimental trials—as before, these trials were an incidental part of a much larger activity. It was learned that the experimental procedure could be repeated indefinitely, the only adverse result being that the waking

subject became too alertly interested or annoyed. There was no such effect upon the hypnotic subject unless the questions were put in rapid succession too many times. Then there would be acquiescence.

Direct sophistication by explanation of their behavior to subjects with no instructions concerning the response they were then to make resulted in a voluntary, usually embarrassed inhibition of the usual response in the waking subject and an effort to duplicate the hypnotic subject's precision of literal response. Unless fully attentive and alert, however, waking subjects tended to make their natural response. This was not so with the hypnotic subjects, who continued with their own typical response until definitely instructed otherwise. Then they would easily and naturally respond in the same manner that characterized the unsophisticated waking response. It was also learned that sophistication of the hypnotic subject could come from long, continued hypnotic work, particularly when the subject in a trance studied the hypnotic behavior of other subjects.

The experiment had been set up originally as an incidental part of a major activity for the purpose of concealing the fact that a specific item of behavior was under study. This helped to avoid the distortion or falsification of responses that results from a realization that one's behavior is under scrutiny. When a large number of results had been obtained, a study was made including only the pertinent matters as the total experiment. Very quickly the waking subjects became aware that the question and their response constituted a vital issue, and efforts at repetition led to a variety of conflicting, uncertain, and inconsistent results. For the hypnotic subject this rigid limitation had little or no effect until too many repetitions aroused a definite interest in the purposes being served by such repetition. Even in this connection there was a significant difference between waking and hypnotic subjects in that the waking subjects inhibited their natural responses while the hypnotic subjects did not become inhibited. Instead they became curious about the experimenter's purposes asking, "Tell me why you ask," or assuming that acquiescence was desired and making a corresponding ready response with no inhibitory reactions.

In other words the predominant natural response to such an inquiry, as "Do you mind standing up, stating your name," etc. was an acquiescence by subjects in the waking state to the behavior implied by the question. In the hypnotic state the responsive behavior was of another character entirely. Most often the question itself was answered negatively, thereby implying positive willingness to acquiesce to the implied action of the question if and when such request were made explicitly.

Even variations of the predominant responses were of a totally different character, ranging from a direct refusal of an act regarded as possible in the waking state to the recognition of a physical inability to act in the trance state.

Repeated experience with the same experimental situation in both the waking and the trance states did not alter the natural response of each state of awareness. Direct sophistication of the subjects had the effect of inhibiting the natural response in the waking state with some degree of self-consciousness. Both sophistication by direct

enlightenment or by permitting long-continued, interested study of hypnotic behavior in the self and others had the effect of making the hypnotic-state response identical to the unsophisticated waking response—again, a difference of behavior for the two states of awareness.

Nor has this finding been restricted to this experimenter's studies. He has encountered various colleagues who have themselves noted this literalness of response to questions and have used comparable questions as clinical tests for determination of the presence of the hypnotic state.

This general difference between waking and hypnotized persons in the meaningfulness of communications has been noted in many other regards and has led to the general admonition to offer suggestions to the hypnotic subject with clarity and meaningfulness. Operators must be aware of what they are actually saying.

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<sup>1</sup>All first-time waking subjects included subjects used subsequently as trance subjects. Their number is disproportionately large since a good number refused to be hypnotic subjects and could not be tested a second time in the trance state.

<sup>2</sup>Both types of subjects were employed for repetitions of the experiment, but data thus secured was only confirmatory of the original results obtained; hence the results of multiple trials were not included in this experiment.

<sup>3</sup>This figure is doubled in value, however, since all hypnotic subjects were tested for the second time in the waking state on the assumption that their hypnotic response might alter their waking response.

<sup>4</sup>Meaning, "No, I do not mind..." telling one's name, changing seats, standing up, or whatever the request too alertly interested or annoyed. There was no such effect upon the hypnotic subject unless the questions were put in rapid succession too many times. Then there would be acquiescence.

# **Literalness and the Use of Trance in Neurosis**

Milton H. Erickson and Ernest L. Rossi

Dialogue between Milton H. Erickson and Ernest L. Rossi, 1973.

E: The conscious mind already has its own set ideas about the neurosis. It has its fixed, rigid perceptions that constitute a neurotic set. It's very difficult to get people at the conscious level to accept an alteration of their general thinking about themselves. You use the trance state so that you can get around the self-protection which the neurosis provides on an unrecognized level. The neurotic is self-protective of the neurosis.

R: How does trance get around that self-protective aspect of neurosis?

E: The *literalness* of the trance state causes the patient to have a new pattern of listening. He listens to the words in the trance state rather than to the ideas.

R: The therapeutic words that the therapist says?

E: Yes. The patient gets those individual words and can hear the therapist say, for example, "you ... don't ... want ... to ... smoke." In the ordinary waking state he only hears, "You ... don't." He feels that is condemnatory, as if he is being attacked. So he becomes defensive and is unable to hear the rest of the sentence.

R: So trance gives the patient a chance to hear your entire message, to hear exactly what you are saying without screening out any elements.

E: Without screening and without lifting or activating defense mechanisms. When you hear a *pleading tone in the patient's voice*,—for example, when he says, "I just can't stop smoking . . . , " that is a signal to make use of his unconscious by letting him go into trance because consciously he cannot listen to you.

R: He has a pleading tone because his conscious mind is distressed?

E: Yes. When you hear this conscious distress

R: That means consciousness is in a weak position relative to the forces of neurosis, and it needs help.

E: Yes, it needs help, and that help can be given so much more easily and directly in trance. You drop the patient into a trance state and you say, "You came to me, you stated your problem as 'I don't want to smoke,' [spoken as a weak plea] and you have a lot of feeling in your voice. A lot of meaning in that tone of your voice. You put it there. It's

your meaning. Now think it over and recognize the meaning that you put there.” That begins his inner recognition, “I don’t want to *smoke!* [spoken firmly and with conviction] rather than a plea of distress.

R: You let him think quietly at that point in trance?

E: That’s right.

R: And then does he talk to you about what conclusion he came to? What’s the next step?

E: Patients’ reactions vary tremendously. Some will ask, “Have I got the strength?” rather than making a piteous plea. Another will ask, “What approach should I take?” “Will I get fat?” etc. The answer to the last question is, “You don’t want any problem.” You see, that’s a very comprehensive statement.

R: Because that statement is made in the trance state, it helps free the patient from “any problem.”

E: Yes. “What you really want is the comfort of enjoying not smoking.” That helps him focus on *comfort* as he gives up smoking rather than looking for other problems.

R: You give the patient an alternative that is better than the problems.

E: *An alternative that you have defined in such general terms:* “You don’t want any problem. You want the enjoyment that is rightfully yours.”

R: A general suggestion given in a positive way.

E: But it seems so specific when you listen to it.

R: Because the patient applies it to specifics (such as the things he wants to enjoy) within himself.

E: Yes. You make general statements that a person can apply to specifics within his own life.

R: This is a general approach that could be applicable to a great variety of neurotic problems.

E: That’s right!

# **Age Regression: Two Unpublished Fragments of a Student's Study**

Milton H. Erickson

Written between 1924 and 1931.

## ***FRAGMENT ONE: THE CONCEPT OF AGE REGRESSION***

The psychiatric concept of regression, originally developed by the psychoanalytic school of thought, has proved a most useful measure in the classification and evaluation of various forms of behavior, both normal and abnormal. Psychiatrically, regression may be defined loosely as the tendency on the part of the personality to revert to some method or form of expression belonging to an earlier phase of personality development. The use of this concept, however, has remained largely on the descriptive level at which it originated, chiefly because it relates to data obtained in the main observation of a post hoc character. Hence there has been little opportunity to evaluate this concept except by the method of relative comparisons of observational material.

Another difficulty involved in the evaluation of the concept lies in the fact that its application must remain individualistic, since the varying degrees of development among different personalities and among the various aspects of the same personality may render precisely the same mode of expression regressive for one individual, progressive (in the sense of being the opposite of regressive) for another, or regressive in relation to certain aspects of the personality and not regressive in relation to certain other aspects. Then, when it is taken into consideration that the "degree of development" upon which the concept of regression is fundamentally based is in itself a vague, speculative concept, the difficulty of evaluating regression directly becomes all the more apparent. Hence there arises the question of the advisability of approaching the problem by qualitative and quantitative measures of some of the mental processes that presumably are involved in regressive phenomena.

In this regard, since regression consists of the reestablishment of a form of self-expression or behavior belonging to an earlier phase of development, a likely approach would seem to be any experimental procedure that would serve to reestablish individuals in an earlier period of their lives in such a fashion that the reestablishment would constitute a reorientation not based on memories or recollections as such—with their consequent and, for experimental purposes, distorting, perspectives—but a reorientation in the past as an immediate actuality with its evocation of corresponding attitudes and behavior.

That such an experimental reorientation can be achieved satisfactorily is a serious question despite the fact that the psychological and psychiatric literature is replete with

instances of such spontaneous occurrences on what is known as a functional basis and many of which were of a reversible character, permitting the person to live alternately in the chronological present or in the immediate present of the reestablished past.

Further, experimental psychological work, particularly in the field of hypnotism, has shown that mental states can be induced that are unrelated to immediate reality but are, so far as can be determined, actual reactivation of mental states previously experienced and uninfluenced by mental patterns acquired subsequent to the original experiences.

Examples may be found in the restoration of the original awkwardness and uncertainty in skilled acts, the evocation in deep hypnosis of long-lost skills and knowledge, and the reestablishment of previous attitudes and behavior contrary to that required by the chronological present.

In the observational and experimental work that has been done, however, the validity of the findings could be judged only by the method of relative comparison—that is, by a comparison of the established attitudes and behavior of the chronological present with the attitudes and behavior elicited in the presumed reactivation of the past. By such a method the conclusions drawn are, at best, only inferential.

Theoretically, the ideal approach to the problem would be the recording of all essential data regarding the experimental subject and then, at a suitable subsequent time, activating the original situation in which the data were collected. However, the length of time requisite to eliminate factors of simple memory and immediate relationships to the chronological present render such a procedure impractical.

## ***FRAGMENT TWO: AN INDIRECT APPROACH TO AGE REGRESSION***

My initial efforts to induce age regression by the traditional approach of direct suggestion gave inconsistent results. Although age regression could be readily induced by direct suggestion, the subject's general behavior was usually characterized both by remarkable accuracies and gross errors. The fidelity with which various minute details of behavior in a given situation for a specified age were often portrayed, however, suggested that the errors and inconsistencies were the result of inadequacies in the technique of hypnotic suggestion. Accordingly, an indirect technique of suggestion for this experiment was then worked out through a trial-and-error method on a number of hypnotic subjects. As a measure of avoiding possible coaching effects, none of these subjects was used subsequently in the experiment itself. Instead, four other subjects were employed, three female and one male. All were college graduates; all were unaware of the nature or purpose of the experiment; and all were able to develop profound somnambulistic trances because they had been thoroughly trained to do so in connection with other experimental work. In addition, confirmatory data were obtained on another subject, a recovered mental patient who had been reoriented by the experimental technique to the period of his acute illness; for this time there was an adequate psychometric record by which the validity of his reorientation might be tested.

The indirect approach to age regression that was used with these subjects consisted of four stages:

1. The allotment of enough time for both the induction of the trance state itself and for reorientating the subject to the desired age level. A minimum of 20 minutes was allowed for each of these processes. Contrary to general opinion, the induction of a sound, consistent, and firmly established trance or the execution of difficult, complicated hypnotic suggestions are not matters of simple, prompt obedience to emphatic hypnotic commands, but rather the results of a profound psychophysiological process requiring time for the organization and development of patterns of response and behavior.

Particularly is this so when subjects are called upon for difficult, complex performances.

2. The giving of suggestions in accord with a definite pattern of presentation that has been found clinically to be effective. This consisted in first giving the suggestions vaguely and indefinitely, so that the subjects became rather uncertain and confused about exactly what was wanted and meant and definitely desirous of receiving any further understandings that might be offered to them. There followed then a repetition of the suggestions more and more clearly, concisely, and insistently until the subjects had a clear understanding of them and had accepted them, as indicated by the subjects' general behavior and responses. This done, the suggestions were again repeated over and over, but this time in broad, general, inclusive terms to preclude the subjects from taking exception to, or resisting, any of the suggestions, thus emphasizing the commands and yet leaving the subjects free to react fully and completely despite any inadequacy of the suggestions themselves. While this was being done, the next series of suggestions was introduced in vague, general terms. There was thus an interweaving of suggestions, permitting a slow, gradual, virtually unnoticeable progression from one type of suggestion to the next. This served to promote the shifting from one mental attitude to another—an essential basis for the experiment.

3. The giving of a series of suggestions to secure the following sequence of effects upon the subjects:

- (a) general state of emotional indifference and unconcern;
- (b) general state of confusion and uncertainty;
- (c) general slowness, uncertainty, and blocking of memories, particularly those for the events of the current day, week, and month;
- (d) general state of disorientation for person, place, and time;
- (e) development of a definite amnesia for the events of the current day, week, and month;
- (f) development of an amnesia for the events of the past year, the year before that, etc., and a forgetting even of the existence of those years;
- (g) the realization that "time is changing" and "everything is changing," that soon the subjects, completely forgetful of all those stated years, will feel themselves to be of a specified age, then believe themselves to be of that age, and then know that they are exactly so old, while at the same time they will realize that the current

- year actually belongs to the remote future—as, indeed, do all the years subsequent to their specified age year;
- (h) the subjects' realization that soon they will find themselves in a pleasant situation at the specified age, knowing all those things they should know—not less, not more—experiencing the feelings that all people know they have, possessed of the interests and desires rightfully theirs, being themselves and just themselves and enjoying their rightful span of specified years;
- (i) finally the realization that they are of the specified age, feeling, thinking, knowing, and experiencing all those things rightfully theirs, just as they experienced and enjoyed those feelings and things not only today but yesterday and last week, and just as they will tomorrow and the next day and next week, and that now they are to open their eyes, ready and willing to pick up a pencil and to do whatever they are asked to the very best of their ability and as rapidly and thoroughly as they can.

4. The repetition of the entire procedure of suggestion for each age level tested for from 8 to 18 years, and the limitation of each experimental session to the investigation of a single age level.

## **EXPERIMENTAL PROCEDURE**

Upon being hypnotized and reoriented in accord with the technique described, each subject was given one of the four forms, A, B, C or D, of the Higher Examination of the Otis Self-Administering Tests of Mental Ability. A time period of 20 minutes was allotted to each for the test performance. The order of administration of the various forms of the test, together with the order of suggestion of the various age levels, was systematically random to secure an irregular succession both of test forms and of age levels without there being a sequence of identical forms or of successive years.

At the expiration of the allotted time the subjects were reoriented and suggestions were given for an amnesia of the entire experience. At a later date—perhaps the next day, perhaps the next week—they were again approached with the request to contribute an hour or two for some hypnotic work the experimenter was planning. The time actually required for the experiment averaged between 25 and 30 hours per subject. The experimental sessions were spread over a period of five to six weeks, for the purpose of confusing any spontaneous memories and to impede any deliberate organization of test performances. In addition, from time to time the tests were given in the simple trance state to safeguard still further against spontaneous memories or deliberate systematization of responses.

When the experimental aspect of the problem had been completed, the subjects were asked (through an associate of the experimenter's, to avoid possible hypnotic effects) to perform in the waking state, item by item, the tasks already accomplished without their apparent knowledge in the trance state. Upon their consent they were given a detailed description of what was desired in terms embodying essentially the same points as had the hypnotic instructions. This was done as a measure of giving them the same type of

cues as had been given in the trance state. Once these complete instructions had been given, the subjects were found to be unwilling to listen to repetitions for further test performances.

As an additional control measure a group of six nonhypnotic subjects, comparable in training and intelligence to the experimental subjects, were asked to perform the same experimental task at a waking level. They were given the same full instructions as had been given the experimental subjects for the control series. The entire series of tests was not performed, however, because some of the control subjects were found to be unable to perform the task, while others governed their performance by arbitrary standards serving to establish the exact extent of their performance for any specified age level.

## **EXPERIMENTAL RESULTS AND SUMMARY**

The data as finally obtained included complete experimental and control results on three hypnotic subjects, nearly complete data on a fourth, confirmatory data from a single age regression on an additional hypnotic subject, and control data on six nonhypnotic subjects, adequate in character but incomplete in quantity because of the significant character of the first test performance by those subjects.

In addition to the experimental results many clinical observations were also made. All of them contributed significantly to the experimental findings, serving to clarify and to explain them and to give a better realization of the actual effects of the hypnotic suggestions and of the general problems to be met in this type of hypnotic experimentation. However, for this report these will not be given except in general outline.

A summary of the findings of this investigation may be given briefly in the following paragraphs:

1. A total of four hypnotic subjects in a deep trance, reoriented to earlier age levels and subjected to intelligence tests, gave evidence of a definite approximation of the mental patterns of the specified age levels. Three of the four subjects were reoriented to the age levels of 8, 9, 10, 11, 12, 14, 16, 17, and 18 years, and two of these to the additional years of 13 and 15. One subject was reoriented only to the age levels of 8, 10, 12, 14, 16, and 18. For these subjects the results obtained both in general behavior and in test performance were appropriate to the age levels suggested to them. Their performances on the test were straightforward and serious; it was taken always at face value, and the entire allotted period of 20 minutes was invariably utilized to the utmost. There was a distribution of correct and incorrect answers and of omitted questions appropriate to the various suggested age levels: For the earlier ages there were frequent evidences of juvenile misunderstandings and approximations in various of the wrong answers. There was no evidence of any carrying over of memories from one test situation to another. The same subjects gave right and wrong answers to the same question, in keeping with appropriate age levels.

2. Of the same subjects asked to perform under normal waking conditions the task already completed in the hypnotic state, two actually made an attempt somewhat similar to their trance performance. A third, through a process of specious reasoning, gave a highly systematized adult performance, and when asked to perform the task again, but in a different fashion because of the falsity of his first attempt, found it too difficult. A fourth subject, on whom the trance data were incomplete, found the task entirely too difficult to be done in the waking state, despite repeated conscientious attempts. The results obtained on the first two subjects resembled the trance findings only in the mental age as derived from the test scores. The performance of each subject was entirely that of an adult, in full awareness of his adult mental state, seeking to limit his adult performance to a lesser one that was presumably appropriate to a specified age level. In no instance did there seem to be any recognition or understanding of what the task actually implied—namely, behavior appropriate to the specified age level. In brief, the test performance under the control conditions was characterized wholly by adult behavior; responses were systematically calculated and organized in accord with a full adult conception of what might constitute the lesser performance appropriate to the specified age level. To this end the subjects arbitrarily restricted the amount of time used of the allotted 20 minutes to a period of three to eight minutes for the earlier age levels. Similarly, the number of questions answered at each age level was arbitrarily limited by the individual subject and systematically increased for each higher age level. In addition, all answers were correct; there seemed to be no realization on the part of the subjects that mistakes might and would be made at the various age levels. Also, there was little or no omission of specific questions because of their difficulty, except as a process of deliberate calculation, but there were mass omissions of questions for the sole purpose of limiting the total quantity of the performance. In brief, in the control examinations the subjects arbitrarily limited the time and quantity of their performance in accord with their adult understanding of what might be accomplished at a specified age limit. There was no effort to attempt either the behavior or the test performance appropriate to the specified age level.
3. The performance of the nonhypnotic control subjects was characterized by the same type of adult behavior as had been shown by the hypnotic subjects in their waking control performance, and the findings obtained, both as to method and actual results, were essentially comparable.
4. This experiment led to an attempt at testing the experimental results by reorienting a recovered mental patient to the time of the height of his acute mental illness more than a year previous, at which time a complete psychometric record had been obtained. Psychometric examination upon reorientation served to secure results in remarkable agreement with those actually obtained more than a year previously. For example, on the Otis Intermediate Test administered originally, his mental age was found to be seven years, ten months; on the same test, upon reorientation to that period, his performance scored seven years, eleven months. Likewise his ratings on the Stanford-Binet, the Army Alpha, and various performance tests showed similar remarkable agreement. In addition a

psychometric examination made previous to the reorientation experiment disclosed his normal mental age to be 13 years, 6 months.

# **Past Weekday Determination in Hypnotic and Waking States**

Milton H. Erickson and Allan H. Erickson

Unpublished manuscript written with Allan Erickson, 1962.

Since the mid-1920s, when the senior author first became interested in hypnotic age regression, periodically there has been propounded the proposition that any intelligent college student can readily and easily calculate the day of, the week for any given past date. At the time researchers uncritically accepted this assumption<sup>1</sup> as proof that any correct identification of the weekday by subjects who had been age-regressed hypnotically was not evidence of the reestablishment of earlier understandings and patterns of behavior. In this regard the senior author had repeatedly regressed hypnotic subjects in age, had then asked them what day of the month it was, and had received an immediate answer. Without further pause they would be asked what day of the week it was, and an immediate reply would be given which, in the majority of instances, was correct. This had been regarded by the senior author as a significant finding that tended to validate age regression as a genuine phenomenon, particularly when numerous inquiries of fellow students in the normal waking state had disclosed a definite inability to perform such a task.

Thus, students in the awake state would be asked, "On what day of the week did your second, last [third, fourth, fifth] birthday come?" Or, "On what weekday did Christmas [New Year's, Fourth of July, Valentine's Day] come two [three, four, five] years ago?" A correct answer to this type of question was found to be a rarity. The usual answer was, "I just do not know" or "I'd have to work that out." Some accepted the question as an interesting problem and actually tried to devise calculation methods to determine the answer. On the whole, however, practically all failed in their calculations, so that a correct answer by a correct method was as much a rarity as was a correct spontaneous answer. Among the correct spontaneous answers were some invalidated by personal referents such as, "That's easy, my birthday that year was the day after Thanksgiving, so it would be Friday." Sometimes a special event would permit a correct answer for a certain birthday. Thus, there might be a correct answer such as, "My birthday is exactly three weeks before Christmas. Last Christmas was on a Sunday because I had to go to work on a new job the next day, so my birthday last year was on Sunday." Even so, they would be confused and uncertain as to the date of the week for the preceding and the subsequent birthdays.

## **FIRST STUDY**

The senior author proceeded to regress a series of 10 hypnotic subjects to various age levels. The usual procedure of an orientation backward in time through the years was

employed, thereby effecting a blanket amnesia for all events subsequent to the preselected past time. If time permitted, at least four different past ages were selected. The experiment was not done for publication but simply to discover if there were sufficient grounds for studying hypnotic regression as a valid phenomenon. The periods of time preselected were intentionally described to the subject as "this nice day in summer [fall, winter, or spring], and you are about 17 [11, 9, or 7 years old]. These specific ages were not used for each subject but serve merely to indicate the type of age range. For each subject the separate regressions were done in random fashion: The first regression might be to the youngest age level, the next might be to the oldest, and the order of the next two might be from the lesser to the greater or vice versa. The selection of season of the year followed a random pattern, too: A subject might be regressed to a childhood summer, for example, with subsequent regressions to spring, winter, and fall for other age levels.

In determining the year to which the subject was regressed, the point of time of orientation was made the subject's responsibility by employing such seemingly definitive descriptions as, "And now it will soon be your 16th birthday," or, "You are now 13 years old and school will soon begin again." Thus, a birthday early in January (there were no preliminary questions for such determinations) might compel the subject to orient to the preceding year in accordance with his definition of the word soon. Or the subject might be instructed, "And now it is such a nice day, right in the middle of the summer just before you go into the 8th grade." A follow-up question might be, "I wonder if it is going to rain today. What do you think?" An answer might then lead to such spontaneous dialogues as follows:

Patient: I hope not 'cause Daddy is going to take us fishing.

Therapist: Does your Daddy always take you fishing?

Patient: No, but he promised to take us fishing today because it is Willie's birthday tomorrow and we go to church on Sunday, so he has to take us today.

Thus, the weekday would be an indirect spontaneous disclosure.

Or the question of "What do you think you will do today?" might elicit the following dialogue:

Patient: Oh, it's visiting day and I got to go visit my Daddy.

Therapist: Why is that?

Patient: My Daddy and my Momma don't live together no more, and every Saturday I have to go visit him.

Such spontaneous disclosures were not infrequent at lower age levels, but when questioned for the day of the month the subjects usually did not know it. Occasionally,

when the subject was queried at an early age level for the month of the year, a reply of the following character would be received: "It's July—no, it was July last week, and now it's August."

Frequently no weekday identification could be secured at the lower age levels. Instead, the subjects would state that they didn't know what weekday it was, or would offer several questioning guesses. When they were then questioned, "What day do you think it is?" the confident answer would be, "It's 'painting' day [or 'story' day or 'practice' day], and inquiry would disclose that once a week some activity in school would be emphasized. This finding was frequently encountered among the senior author's fellow students in the waking state, who more than once, when asked the day of the week, would reply, "Let's see, I went to chemistry class [mathematics, physics, etc.] today. That's a Monday-Wednesday-Friday course, and it was my second class this week in Chemistry—so it's Wednesday." Subsequently the author encountered a similar identification of weekdays in his fellow medical students. The weekday nomenclature was replaced by courses being taken as the identification. Thus Saturday ceased to be Saturday; it became Dermatology Clinic day. Years later the senior author's medical students did the same thing. More than once he received a telephone call: "Is Eloise [the post office name of the Wayne County General Hospital and Infirmary on the outskirts of Detroit, Michigan] Day tomorrow, or the next day?" Frequently, the hospital staff replaced Wednesday with "Staff Day," to which one would orient temporarily by "day before" or "day after Staff." Hence the early regression-state-identification of weekdays in terms of events was accepted at the time, with increasing evidence of its validity in subsequent observation of human behavior.

At the older age level regressions, especially from twelve upward, there tended to be two types of reply. Thus the senior author might say hesitantly to the subject, "Uh, let's see, oh, what day is it today?" To this the subject was likely to respond (1) with a statement that he didn't know, hadn't noticed, had been too busy to pay attention to the calendar, or (2) immediately with a specific weekday or day of the month. If the subject Past gave a specific weekday, the author would get further information with the remark, "Oh, I meant the day of the month!" If initially the subject gave the day of the month, the author would ask for the day of the week. At the older age levels this type of reception was misleading as to the author's actual purposes and served to get additional data by which doubly to confirm or to disprove the responses given.

The same measure employed at younger age levels disclosed that both items of information were difficult to secure; some subjects tended to remember the day of the week, while others remembered the day of the month. It then became necessary to ask for other data, such as, "What are you going to do today?" when a reply indicated that it was the 13th of April at their regressed age of eight. Then if the answer was "go to church," one could test the validity of the reply. If the answer was "go to school," this would be followed by "And the next day? And the day after that?" If either of these two questions was answered, "Oh, stay home like every time," the inference of Saturday would be warranted. Or one can inquire about yesterday and the day before. If both questions are answered by a statement of school attendance and a question about tomorrow, and if the

next day also elicits an answer of school attendance, the inference is warranted that the day of the month given is a Tuesday, Wednesday, or Thursday. However, other comparable check questions, or the technique of reorienting the subject to a month earlier or three weeks later, will serve to yield check data. It was early discovered that the answer, "I stayed home the next day and the next day and then I went to school again," does not necessarily mean that the subject is speaking of a Saturday or a Sunday. It might signify an absence from school because of illness or a holiday.

Many of the subjects at the upper age levels failed to identify the weekday or the day of the month. But this was found to be true in the ordinary school and college population and, for that matter, in medical school as well. And who has not encountered adults asking both the day of the week and the day of the month? Inquiry and observation over the years have disclosed a definite unreliability in weekday and month day identification deriving from legitimate interests, not only from neurotic conflicts.

As a consequence of all these special inquiries, the senior author felt satisfied with the results. He had learned that approximately two out of three age-regressed hypnotic subjects could give accurately the weekday or its equivalent for some past day in their life history and that this ability was apparently directly correlated with the age level to which they had been regressed. The lower age levels appeared to have more identification labels based on activity (e.g., "painting day" or "story day"), while the person in the waking state gave responses of another character altogether. Since the senior author was primarily interested in the subjective and emotional meaningfulness to the subject of regression experiences, rather than in the absolute validity of objective factual reporting, this inquiry was dropped as having served its purpose in establishing the validity of age regression in many instances.

## **SECOND STUDY**

In the late 1930s, while the senior author was conducting hypnotic research in relation to the past emotional experiences of psychotic patients at Wayne County General Hospital, the same adverse criticism as to the superior ability of age-regressed subjects versus nonregressed subjects to recall past week and month days was encountered anew. Recalling the original study, a second comparable inquiry was made on anew population of students of medicine and psychology, secretaries, nurses, social service workers, staff physicians, and even psychiatry patients, including some people who were actively psychotic. This study varied in that past dates for both the 20th and 19th centuries were used. The responses elicited were (1) rejections of the task, (2) failure when attempted, and (3) two correct answers to the weekday identity of the past 20<sup>th</sup>-century date. These correct answers happened to be from two chess experts, but both of them failed to identify the 19th century dates. They had forgotten, along with all subjects except one psychology student, that 1900 was not a leap year. (A surprising number of the subjects did not recall this fact about 1900 and even challenged the senior author regarding it.)

The hypnotic subjects, who were often tested in the presence of critics, gave correct answers in a definite majority of instances. Since there were more female subjects in the hypnotic group than in the waking group, the secondary criticism that the inquiry with the waking group might not be valid because of the large number of women in that group was invalidated.

In neither the first nor the second study were the age-regressed subjects asked to identify a weekday of a date preceding their birth—such inquiries were considered undesirable. Since the purpose of utilizing hypnosis as an experimental procedure was to examine the meaningfulness of the subjects' past, personal, experiential realities, to request information preceding their birth would have been a falsification of the emotional content inherent in the hypnotic state.

The criticism may be leveled that these two inquiries were separate in kind for the waking as opposed to the hypnotic groups. The waking group was presented with a mathematical problem, whereas the hypnotic group was presented with a problem contingent upon subjective experiences. That it can be solved only on a mathematical basis is, however, the prevalent waking assumption. The senior author's experience is that the *waking subjects are restricted to their general conscious concepts of how to function intellectually, while hypnotic subjects respond in a totally different way based on real-life experiences and the reactivated memories of such experiences*. The waking subjects approach the problem as a cognitive one, requiring time and careful calculation, whereas the age-regressed hypnotic subject utilizes reactivated personal associations in an immediate and spontaneous manner.

## **APPENDIX**

A college class of algebra students was given the following problems to test the assumption that any college student could calculate the day of the week for any given date of the past.

### *First Problem*

Given: What day of the week it is today.

Find: What day of the week it was  $x$  years ago, where  $x$  is approximately 20 years ago ( $x$  is a whole number of years).

### *Second Problem*

Given: What day of the week it is today.

Find: What day of the week it was  $x$  years ago, where  $x$  is approximately 75 years ago ( $x$  is a whole number of years large enough to make the day sought fall in the 19th century).

Total number of people attempting to solve the problems: 39

*Results:* 24.8

- (1) Number of people who got both problems entirely correct using a correct method: 1
- (2) Number of people who got first problem entirely correct using a correct method: 14
- (3) Number of people employing a correct method in solving the problems (some minor mistakes): 15
- (4) Number of people who knew 1900 is not a leap year; (The one person who got the problem correct.): 1

(Note: The one person who did get the correct answers was an A student in an intermediate algebra course in college.)

The final algebra grades of the students who got the correct answer through a correct method to the first problem are as follows:

$$\begin{aligned}A &= 3 \\B &= 4 \\C &= 2 \\D &= 4 \\F &= 1\end{aligned}$$

#### *Time Requirements*

Number of minutes required by the one student who got both answers correct to calculate the problems:  $5 \frac{1}{2}$

Average number of minutes required by the students who got the correct answer to the first problem but the wrong answer to the second problem ( $N = 13$ ):  $13\frac{1}{2}$

Average number of minutes required by the 15 students to work the problem through a correct method without regard to answer:  $15\frac{1}{2}$

From these results it is evident that most students in a college algebra class cannot quickly and easily calculate the day of the week or any given past date.

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<sup>1</sup>An experimental demonstration of the incorrectness of this assumption is presented in the Appendix by Allan Erickson

# **On the Possible Occurrence of a Dream in an Eight-Month-Old Infant**

Milton H. Erickson

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The age at which dreams first play a part in the psychic life of the individual is unknown. Various careful studies have reported that dreams may occur even before the development of speech, but the weight of evidence has been inferential in character and based upon sleep disturbances for which purely physiological, as distinct from psychic, activity might as readily be postulated. With the development of speech, however, definite evidence of dreaming by very young children has been obtained, their utterances while asleep disclosing their sleep disturbances to have an unmistakable psychic content, as is shown so clearly in recent observations of dreaming in a two-year-four-month-old baby (Grotjahn, 1938).

Pertinent to these considerations is the following brief note reporting an instance in detail which suggests strongly that a dream with definite psychic and affective content may occur even at the early age of eight months. The attendant circumstances are given in full since they suggest a possible background for the development of affective desires which might in turn give rise to dream activity. For a period of months a father was in the habit of playing with his infant daughter regularly just previous to her 6 P.M. feeding, and much pleasure was taken in inducing her to laugh and in watching her extend her legs, flex her arms over her chest, and turn her head from side to side as she laughed. The infant had developed a definite attitude of expectation for this specific play activity.

When she was exactly eight months old, external circumstances caused the father to be absent from home one evening and the next. Returning at midnight the second evening, he paused at her bedroom door. He could see her clearly outlined in the moonlight, lying quietly in her crib, breathing deeply and sleeping soundly. As he was about to turn away, she moved restlessly, extended her legs, flexed her arms over her chest, turned her head from side to side, laughed merrily, took another breath and laughed again. This was followed by general relaxation and a continuance of the deep, quiet, breathing, nor did she arouse when her father entered, but continued to sleep as he tucked her more securely under the covers.

To say that an infant of eight months could have a dream of definite psychic content and with affective components seems questionable, but even more questionable would be any attempt to postulate a physical discomfort which would disturb sleep and result, at that age, in an expression by laughter. Likewise questionable could be any attempt to draw conclusions about so young a child experiencing affective deprivation so strongly that

resort would be had to a dream satisfaction. Yet in this instance such an inference seems plausible. In any event the observation is noteworthy in relationship to the problem of dream life, and it is hoped that other observers may report similar instances.

Since making this original observation, another of similar character has been made.

As they were returning late one night, the parents heard the baby, then 13 months old, laughing merrily. Entering her bedroom immediately, they found the child apparently sound asleep. Before they had an opportunity to touch her, however, the child again laughed merrily, and this laughter was immediately succeeded by a third peal, following which the infant continued to sleep so soundly that even the changing of her diaper did not arouse her.

That this type of behavior occurred in relation to a pleasing psychic content or experience on the order of a dream seems to be a reasonably plausible and legitimate inference.

At the age of 23 months, this same child became much concerned over a rather extensive abrasion of the knee suffered by her older sister as a result of a fall on the pavement—an accident discussed by all of the children in the family and their playmates. Several nights later, after she had been sleeping about three hours, she suddenly began to cry. Upon being picked up, still crying, she sobbed, "Po' Kaka [Carol]. Kaka bad bump. Kaka hurt. Kaka cry." Efforts to reassure her verbally failed, as did an attempt to show her that Carol was sleeping quietly. She continued crying, adding, "Kaka fall down. Kaka hurt knee." She seemed still to be asleep and unresponsive to all reassurances. Accordingly she was aroused completely. Thereupon she repeated her remarks, but with much less grief in her voice, and she seemed to be very greatly bewildered and puzzled by the sight of Carol sleeping quietly in bed, as if she could not reconcile a dream content with the actual sight of her sleeping sister. She then proceeded to discuss the matter, and the impression derived from her fragmentary remarks was that she was trying hard to explain the situation to her parents. Following this she returned readily to bed and slept comfortably the rest of the night. In this instance there can be no doubt of the occurrence of an actual dream based upon a previous experience.

# **The Successful Treatment of a Case of Acute Hysterical Depression by a Return Under Hypnosis to a Critical Phase of Childhood**

Milton H. Erickson and Lawrence S. Kubie

Reprinted with permission from *The Psychoanalytic Quarterly*, October, 1941, Vol. X, No. 4.

## **EVENTS WHICH LED TO THE ATTEMPT TO TREAT A DEPRESSION BY HYPNOSIS**

An unusually capable 23-year-old woman had been employed in a mental hospital for several months. Toward the end of this period she developed a progressively deepening depression. Later it became known that she had continued to discharge her duties fairly well for some weeks after a certain upsetting event; but that as time passed she had become increasingly disinterested and ineffectual in her work, slowly discontinuing all social relationships, and spending more and more time in her secluded room. At this point in her illness she ate only in response to her roommate's pleading, sobbed much of the time, occasionally expressed a wish to die, and became blocked and inhibited in speech whenever any effort was made to question her about her difficulties. During the latter part of this phase the patient's symptoms became so acute that her relatives and friends sought psychiatric help.

The patient was seen by several psychiatrists, some of whom diagnosed her condition as the depressive phase of a manic-depressive psychosis. A psychoanalyst and one of the authors, Dr. Erickson, believed it to be an acute reactive depression. Later evidence, which became available only as the story developed, indicated that it was a typical "hysterical depression," that is, a depression reaction growing out of a definite hysterical episode.

Several consultants were in favor of commitment. To this, however, the family of the patient would not consent, insisting that some form of active psychotherapy be at least attempted. Accordingly, sympathetic and persuasive encouragement was tried. The patient responded to this sufficiently to appear slightly less depressed and to return to her work in a feeble and rather ineffectual fashion; but she remained unable to discuss her problem.

This slight amelioration of her symptoms was sufficiently encouraging to warrant further efforts, yet, was far from sufficient to free her from the danger of a relapse into deeper suicidal depression. Furthermore, the threat of commitment still hung over her head; therefore, with many misgivings the suggestion was made that she attempt psychoanalytic treatment. She showed some interest in this idea, and despite the fact that

it is unusual to attempt analysis in the midst of a retarded depression, for a period of about a month she was encouraged to make daily visits to an analytically trained psychiatrist.

During this month, except for the fact that the analytic hour seemed to help the patient to make a better adjustment during the rest of the day, she made little progress, produced no free associations, related only a few fragmentary parts of her story, and usually spent the hour in depressed silence with occasional futile efforts to say something, or in sobbing as she declared that she did not know what awful thing was wrong with her or what awful thing had happened to her. Toward the end of the month she began to show signs of relapsing into an acute depression of psychotic intensity so that commitment seemed imperative.

In spite of these discouraging experiences the family again asked that before resorting to commitment some other therapeutic measure be attempted. The suggestion that hypnotic therapy might be of value was accepted by her relatives, and plans were made for this without the patient's knowledge. At this point the patient's problem was referred to Dr. Erickson with the following story which had been pieced together by the various psychiatrists from the accounts of the patient's roommate, of her relatives, of a man in the case, and in small part, of the patient herself.

### **CLINICAL HISTORY**

The patient was the only daughter in a stern, rigid, and moralistic family. Her mother, of whom she always stood in awe, had died when the patient was 13 years old. This had had the effect of limiting her social life somewhat, but she had an unusually close friendship with a neighbor's daughter of her own age. This friendship had continued uneventfully from childhood until the patient was 20 years old, three years before the date of the patient's illness.

At that time the two girls had made the acquaintance of an attractive young man with whom both had fallen in love. Impartial toward them at first, the young man gradually showed his preference for the other girl, and presently married her. The patient responded to this with definite disappointment and regret but quickly made an adjustment which seemed at the time to be unusually "normal," but which in view of later developments must be viewed with some suspicion. She continued her friendship with the couple, developed transitory interests in other men, and seemed to have forgotten all feelings of love for her friend's husband.

A year after the marriage the young wife died of pneumonia. At the loss of her friend the patient showed a wholly natural grief and sorrow. Almost immediately thereafter the young widower moved to another section of the country, and for a time dropped out of the patient's life completely. Approximately a year later he returned and by chance met the patient. Thereupon their former friendship was resumed, and they began to see each other with increasing frequency.

Soon the patient confided to her roommate that she was "thinking seriously" about this man, and admitted that she was very much in love with him. Her behavior on returning from her outings with him was described by the roommate and by others as "thrilled to the skies," "happy and joyous," and "so much in love she walks on air."

One evening, after some months, she returned early and alone. She was sobbing, and her dress was stained with vomitus. To her roommate's anxious inquiries the patient answered only with fragmentary words about being sick, nauseated, filthy, nasty, and degraded. She said that love was hateful, disgusting, filthy, and terrible, and she declared that she was not fit to live, that she did not want to live, and that there was nothing worthwhile or decent in life.

When asked if the man had done anything to her, she began to retch, renewed her sobs, begged to be left alone, and refused to permit medical aid to be summoned. Finally she yielded to persuasion and went to bed.

The next morning she seemed fairly well, although rather unhappy. She ate her breakfast, but when a friend who knew nothing of these events casually asked about the previous evening's engagement, the patient became violently nauseated, lost her breakfast, and rushed precipitously to her room. There she remained in bed the rest of the day, sobbing, uncommunicative, uncooperative with a physician who saw her, essentially repeating the behavior of the previous evening.

During that day the man tried to call on her. This precipitated another spell of vomiting; she refused to see him. She explained to her roommate that the man was "all right," but that she was nasty, filthy, disgusting, and sickening, and that she would rather kill herself than ever see that man again. No additional information could be obtained from her. Thereafter a telephone call or a letter from the man, or even the mention of his name, and finally even a casual remark by her associates about their own social contacts with men, would precipitate nausea, vomiting, and acute depression.

To a psychiatrist the man stated that on that evening they had gone for a drive and had stopped to view a sunset. Their conversation had become serious, and he had told her of his love for her and of his desire to marry her. This confession he had long wanted to make, but, he had refrained even from hinting at it because of the recency of his wife's death and his knowledge of the depth and intimacy of the friendship that had existed between the two girls. As he had completed his confession, he had realized from the expression on her face that she reciprocated his feelings, and he had leaned over to kiss her. Immediately she had attempted to fend him off, had vomited over him in an almost projectile fashion, and had become "just plain hysterical." She had sobbed, cried, shuddered, and uttered the words "nasty," "filthy," and "degrading." By these words the man had thought she referred to her vomiting. She refused to let him take her home, seemed unable to talk to him except to tell him that she must never see him again, and to declare that there was nothing decent in life. Then she had rushed frantically away.

Subsequently, all efforts on the part of friends or physicians to talk to the patient about these events had served only to accentuate the symptoms and to evoke fresh manifestations.

### ***PREPARATION FOR AN INDIRECT HYPNOTIC INVESTIGATION***

Many hints from this story induced the investigator not to attempt to hypnotize the patient simply and directly. In the first place there was the fact that she had rejected every overt sexual word or deed with violent vomiting and with a paralyzing depression which practically carried her out of contact with those who had attempted to help her. She rejected the man so completely that she could not hear or mention his name without vomiting; this reaction to men had become so diffused that she could not accept the ministrations of male physicians, but reacted as though they meant to her the same kind of threat her suitor had represented. She had been able to accept him only in a spiritualized and distant courtship, or when she was protected by the presence of her friends. It was evident that she would far too greatly fear direct hypnosis ever to submit to it.

She was moreover too deeply entrenched in the refuge of illness to fight energetically for health. She had no resources with which to struggle against her anxiety and depression, but at any signal she collapsed deeper into illness. This gave warning that in the preliminary phases of treatment one would have to work completely without her cooperation, either conscious or unconscious, without raising the least flurry of anxiety, without making a single frightening or disturbing allusion to her trouble, if possible without her even knowing that she was being inducted into treatment and most important of all, without her feeling that the therapist (the hypnotist) was directing his conduct toward her at all. Whatever was going on in her presence must seem to her to relate to someone else. Only in this way could the treatment be undertaken with any hope of success. It should be recalled that even the passive, quiet, wordless, almost unseen presence of an analyst had been too great an aggression for the patient to accept, an intolerable erotic challenge, with the result that after a month she had sunk deeper into depression.

Accordingly, arrangements were made to have the patient's roommate confide to the patient that for some time she had been receiving hypnotic psychotherapy. Two days later the psychoanalyst approached the patient and asked her, as a favor to him in return for his efforts on her behalf, to act as a chaperone for her roommate in her regular hypnotic session with Dr. Erickson.

This request he justified by the explanation that she was the only suitable chaperone who knew about her roommate's treatment; the nurse who usually chaperoned the treatment was unavoidably absent. The patient consented in a disinterested and listless fashion, whereupon he casually suggested that she be attentive to the hypnotic work, since she herself might sometime want to try it.

By asking the patient to do this as a favor for him, the analyst put her in an active, giving role. By suggesting to her that she listen carefully because she herself might want similar help some time, he eliminated any immediate threat, at the same time suggesting that in some undefined future she might find it useful to turn to the hypnotist for therapy.<sup>1</sup>

### **THE FIRST HYPNOTIC SESSION**

Upon entering the office, the two girls were seated in adjacent chairs, and a prolonged, tedious, and laborious series of suggestions was given to the roommate, who soon developed an excellent trance, thereby setting an effective example for the intended patient. During the course of this trance suggestions were given to the roommate in such a way that by imperceptible degrees they were accepted by the patient as applying to her. The two girls were seated not far apart in identical chairs and in such a manner that they adopted more or less similar postures as they faced the hypnotist; also, they were so placed that the hypnotist could inconspicuously observe either or both of them continuously. In this way it was possible to give a suggestion to the roommate that she inhale or exhale more deeply, so timing the suggestion as to coincide with the patient's respiratory movements. By repeating this carefully many times, it was possible finally to see that any suggestion given to the roommate with regard to her respiration was automatically performed by the patient as well. Similarly, the patient having been observed placing her hand on her thigh, the suggestion was given to the roommate that she place her hand upon her thigh and that she should feel it resting there. Such maneuvers gradually and cumulatively brought the patient into a close identification with her roommate, so that gradually anything said to the roommate applied to the patient as well.

Interspersed with this were other maneuvers. For instance, the hypnotist would turn to the patient and say casually, "I hope that you are not getting too tired of waiting." In subsequent suggestions to the roommate that she was becoming tired, the patient herself would thereupon feel increasing fatigue without any realization that this was because of a suggestion which had been given to her. Gradually it then became possible for the hypnotist to make suggestions to the roommate, while looking directly at the patient, thus creating in the patient an impulse to respond, just as anyone feels when someone looks at one while addressing a question or a comment to another person.

At the expiration of an hour and a half the patient fell into a deep trance.

Several things were done to ensure her cooperation in this trance and its continuance and to make sure that there would be opportunities to use hypnotic treatment in the future. In the first place the patient was told gently that she was in a hypnotic trance. She was reassured that the hypnotist would do nothing that she was unwilling to have him do and that therefore there was no need for a chaperone. She was told that she could disrupt the trance if the hypnotist should offend her. Then she was told to continue to sleep deeply for an indefinite time, listening to and obeying only every legitimate command given her by the hypnotist. Thus she was given the reassuring but illusory feeling that she had a free choice. Care was taken to make sure that she had a friendly feeling toward the

hypnotist, and for future purposes a promise was secured from her to develop a deep trance at any future time for any legitimate purpose. These preliminaries were time-consuming, but they were vitally necessary for safeguarding and facilitating the work to be done.

It was obvious that the patient's problems centered around emotions so violent that any therapeutic exploration would have to be carried out in some wholly "safe" fashion without provoking the least trace of guilt or fear. Such "safe exploration" meant dealing with everything in such a way that the patient could escape all painful implications. The first maneuver was to lead the patient back to a childhood devoid of childhood pain.

Accordingly, emphatic instructions were given to the patient "to forget absolutely and completely many things," carefully omitting to specify just what was to be forgotten. Thus the patient and the hypnotist entered into a tacit agreement that some things were best forgotten—that is, best repressed. Permission also was thereby given to the patient to repress them without naming them. The exploratory process which lay ahead would be facilitated by this permission to repress the more painful things, since automatically it would be applied to those which were most troublesome.<sup>2</sup>

Next the patient was systematically subjected to a gradual disorientation for time and place, then gradually reoriented to a vaguely defined period in childhood lying somewhere between the ages of 10 and 13. The technique used is described in some detail in studies on the hypnotic induction of color blindness and of hypnotic deafness (Erickson, 1938, 1939). The hypnotist suggests first a state of general confusion as to the exact day, carrying this over step by step to include the week, the month, and the year. Then this is elaborated toward an intensification of a desire to recall certain unspecified things that had occurred in previous years, which also are left indeterminate. The process is a slow one and involves jumping from one confusing idea to another until out of the state of general confusion the patient develops an intense need for some definite and reassuring feeling of certainty about something, whereupon she becomes only too glad to accept definite reassurance and definite commands.

In reorienting the patient toward the age period between 10 and 13, the hypnotist was careful to be extremely dogmatic in tone of voice but equally vague and indefinite as to his precise meaning. The suggestions were given to the patient as though talking to someone else rather than directly to her. She was not told that she herself had to seize upon some meaningful event in those three years.

The years from 10 to 13 were chosen with the idea that they just preceded her mother's death and that they must have included the period of onset of her menstruation and therefore have meant the critical turning point in her general emotional life and in her psychosexual development. Since nothing was known in detail about her life, the exact period of time to which she would finally become reoriented was left to the force of her own experiences.

She was at no time asked to name and identify specifically the age to which she became reoriented in the trance. By allowing her to avoid this specific detail, she was compelled to do something more important—namely, to speak in general terms of the total experience which those years had meant.<sup>3</sup>

Presently in her trance the patient showed by the childishness of her posture and manner, as well as by the childishness of her replies to casual remarks, that she had really regressed to a juvenile level of behavior. She was then told emphatically, "You know many things now, things you never can forget no matter how old you grow, and you are going to tell me those things now just as soon as I tell you what I'm talking about." These instructions were repeated over and over again with admonitions to obey them, to understand them fully, to be prepared to carry them out exactly as told; she was urged to express and affirm her intention to carry through all of these suggestions. This was continued until her general behavior seemed to say, "Well, for what are we waiting? I'm ready."

She was told to relate everything that she knew about sex, especially in connection with menstruation, everything and anything that she had learned or been told about sex during the general period of this hypnotically reestablished but purposely undefined period in her childhood. It is fair to call this an "undefined period in her childhood" because three or four years is indeed a long time to a child, and from among the many and diverse experiences of those years she was at liberty to select those things which were of outstanding importance. Had she been confined to a more restricted span of time, she could have chosen inconspicuous items. Leaving her to select from within a certain broad but critical period in her life forced her to choose the important and painful items.

Up to this point the hypnotic procedure had been systematically planned, with the expectation that any further procedure would depend upon the results of these preliminary maneuvers.

To these instructions the patient reacted with some fright. Then in a tense and childlike fashion she proceeded obediently to talk in brief disconnected sentences, phrases, and words. Her remarks related to sexual activity, although in the instructions given to her emphasis had been laid not upon intercourse but upon menstruation. The following constitutes an adequate account:

My mother told me all about that. It's nasty. Girls mustn't let boys do anything to them. Not ever. Not nice. Nice girls never do. Only bad girls. *It would make mother sick.*<sup>4</sup> Bad girls are disgusting. I wouldn't do it. You mustn't let them touch you. You will get nasty feelings. You mustn't let them touch you. You will get nasty feelings. You mustn't touch yourself. Nasty. Mother told me never, never, and I won't. Must be careful. Must go good. Awful things happen if you aren't careful. Then you can't do anything. It's too late. I'm going to do like mother says. She wouldn't love me if I didn't.

Many of the remarks were repeated many times in essentially identical wordings. Some were uttered only once or twice. She was allowed to continue her recitation until no new material was forthcoming, except the one additional item that this moralistic lecture had been given by the mother on several occasions.

No attempt was made to introduce any questions while she was talking, but when she had ceased she was asked, "Why does your mother tell you these many things?"

"So I'll *always* be a good girl," was the simple, earnest, childlike reply.<sup>5</sup>

Although it was clear, almost from the start, that the patient's passive and submissive dependence upon the mother's commands would have to be broken, it was equally evident that the image of the dead mother played a role in her life which overshadowed that of any living person and that this idolized superego figure could not be dislodged from its position by any direct frontal attack. For this reason the hypnotist's stratagem was to adopt a point of view as nearly identical with the mother as he could. He had first to identify himself entirely with this mother image. Only at the end did he dare to introduce a hint of any qualifying reservations. Therefore he began by giving the patient immediate and emphatic assurance: "Of course you *always* will be a good girl." Then in a manner which was in harmony with the mother's stern, rigid, moralistic, and forbidding attitudes (as judged from the patient's manner and words), each idea attributed to the mother was carefully reviewed in the same terms, and each was earnestly approved. In addition the patient was admonished urgently to be glad that her mother had already told her so many of those important things that every mother really should tell her little girl. Finally, she was instructed to "remember telling me about all of these things, because I'm going to have you tell me about them again some other time."

The patient was gradually and systematically reoriented in terms of her current age and situation in life, thereby reestablishing the original hypnotic trance. However, the earlier instructions to "forget many things," were still in effect, and an amnesia was induced and maintained for all of the events of the hypnotically induced state of regression. This was done in order to soften the transition from those early memories to the present because of the intense conflict which existed between the early maternal commands and her current impulses.

She was prepared for the next step, however, by being told that she would shortly be awakened from her trance and that then she would be asked some questions about her childhood which she was to answer fully. To have asked her in her ordinary waking state about her sexual instructions would have been merely to repeat the severe aggressions of all of her previous experiences with psychiatrists; but by telling her during her trance that questions about her childhood would be asked, she was prepared to take a passive intellectual attitude toward the demand, and to obey it without consciously admitting its connection with her present problems.

As a further preparation for the next step she was told that the nature of the questions to be asked of her would not be explained to her until she had awakened, and that until then

it would suffice for her to know merely that the questions would deal with her childhood. Here again the hypnotist was governed by the basic principle of making all commands as general and nonspecific as possible, leaving it to the subject's own emotional needs to focus his remarks.

Finally, technical suggestions were given to the patient to the effect that she should allow herself to be hypnotized again, that she should go into a sound and deep trance, that if she had any resistances toward such a trance she would make the hypnotist aware of it after the trance had developed, whereupon she could then decide whether or not to continue in the trance. The purpose of these suggestions was merely to make certain that the patient would again allow herself to be hypnotized with full confidence that she could if she chose disrupt the trance at any time. This illusion of self-determination made it certain that the hypnotist would be able to swing the patient into a trance. Once she was in that condition, he was confident that he could keep her there until his therapeutic aims had been achieved.

Upon awakening, the patient showed no awareness of having been in a trance. She complained of feeling tired and remarked spontaneously that perhaps hypnosis might help her, since it seemed to be helping her roommate. Purposely, no reply was made to this. Instead she was asked abruptly, "Will you please tell me everything you can about any special instructions concerning sexual matters that your mother may have given you when you were a little girl?"

After a show of hesitation and reluctance, the patient began in a low voice and in a manner of rigid primness to repeat essentially the same story that she had told in the earlier regressive trance state, except that this time she employed a stilted, adult vocabulary and sentence structure, and made much mention of her mother. Her account was essentially as follows:

My mother gave me very careful instruction on many occasions about the time I began to menstruate. Mother impressed upon me many times the importance of every nice girl protecting herself from undesirable associations and experiences. Mother made me realize how nauseating, filthy, and disgusting sex can be. Mother made me realize the degraded character of anybody who indulges in sex. I appreciate my mother's careful instruction of me when I was just a little girl.

She made no effort to elaborate on any of these remarks and was obviously eager to dismiss the topic. When she had concluded her account of her mother's teachings, they were systematically restated to her without any comment or criticism. Instead they were given full and earnest approval, and she was told that she should be most grateful that her mother had taken advantage of every opportunity to tell her little daughter those things every little child should know and should begin to understand in childhood.

Following this an appointment was made for another interview a week hence, and she was hastily dismissed.

During the course of the following week no new reactions were noted in the patient by her roommate, and the general trend of her depressive behavior continued unchanged.

## **THE SECOND HYPNOTIC TRANCE**

At the second appointment the patient readily developed a deep trance and at once was instructed to recall completely and in chronological order the events of the previous session. She was asked to review them in her mind silently, then to recount them aloud slowly and thoughtfully but without any elaboration.

Such silent review of a hypnotically repressed experience is a necessary preparation. It ensures completeness of the final recall. It avoids uneven emphasis on separate elements in the recollection and distorted emphasis which the subject subsequently would feel the need of defending. It permits an initial recall in silence without any feeling that in remembering facts the subject is also betraying them to someone else. This facilitates the reassembling of painful elements in the subject's memories. Finally, when the subject is asked to tell aloud that which has just been thought through in silence, it becomes a recounting of mere thoughts and memories, rather than the more painful recounting of actual events. This also helps to lessen the emotional barriers against communicating with the hypnotist.

As the patient completed this task, her attention again was drawn to the fact that her mother had lectured her repeatedly. Then she was asked, "How old were you when your mother died?" She replied, "When I was thirteen." Immediately the comment was made with quiet emphasis, "Had your mother lived longer, she would have talked to you many more times to give you advice; but since she died when you were only thirteen, she could not complete that task, and so it became your task to complete it without her help."

Without giving the patient any opportunity either to accept this comment or to reject it, or indeed to react to it in any way, she quickly was switched to something else by asking her to give an account of the events which had occurred immediately after she had awakened from her first trance. As she completed the account, her attention was drawn to the repetitive character of her mother's lectures, and the same careful comment was made on the unfinished character of her mother's work.

It will be recalled that on the first day of hypnotic work the patient was brought back to an early period in her childhood, and in this pseudoregression, she was asked to give an account of the sexual instructions her mother had given her. Then through a series of intermediate transitional states she was wakened, and in her waking state she was asked to give an account of the same instructions, but with an amnesia for the fact that she had already told any of this to the hypnotist. In the second hypnotic treatment up to this point the patient was promptly hypnotized, and the posthypnotic amnesia for the first hypnotic experience was lifted so that she could recall all of the events of her first trance. Then she was asked to review the material which she had discussed immediately after awakening from the first trance—in short, her conscious memories of her mother's puritanical instructions. By reviewing in a trance both the events of her previous trance and the

events that had occurred immediately on her waking from this trance, a direct link was established between the childhood ideas and affects and those of the previous week's adult experience. Thus the two could be contrasted and compared from her adult point of view.

The patient then was reoriented to the same period of early childhood. She was reminded of the account she had given before and was asked to repeat it. When she had done so, in terms essentially identical with those she had used in her original account, similar approving remarks were made, but this time so worded as to emphasize sharply the fact that these lectures had all been given to her in her childhood. When this seemed to be impressed upon her adequately, the suggestion was made quietly that as she grew older, her mother would have to give her additional advice, since things change as one grows older. This idea was repeated over and over, always in conjunction with the additional suggestion that she might well wonder what other things her mother would tell her as she grew older.

Immediately after this last suggestion the patient was brought back from her pseudochildhood to an ordinary trance state. She was asked to repeat her account of the remarks she had made in the waking state. She was urged to take special care not to confuse the words she had used when fully awake with the words of the account she had given in the first pseudochildhood trance state, even though the ideas expressed were essentially the same and even though she had both accounts fresh in her mind. This request constituted a permission to remember now in an ordinary trance the events of the second pseudochildhood trance, since this had been merely a repetition of the first, but the fact that there had been a second trance of this kind would not be recalled. Instead the two trances would be blended into a single experience.

As before, the purpose of these devices was to bring gradually together the child's and the adult's points of view. Into her childhood perspective an element of expectation and of wondering had been introduced by the comment that as she grew older, her mother would have had more to teach her. This now was ready to be brought to bear upon the adult version of her mother's instructions, which she had also given.

The blending of the two experiences served an additional technical purpose. In the first place repetitions are necessary under hypnosis, just as they are in dream analysis or in the recounting of experiences by patients under analysis in general. Without repetitions one cannot be sure that all of the material is brought to expression; moreover, allowing the subject under hypnosis to recall both the original version and the various repetitions as though they were a single occasion actually gives the subject something to hold back—namely, the fact that there were two or more experiences. This seems to satisfy the subject's need to withhold something, by giving her something unimportant to withhold in return for the important fact which is divulged. This the hypnotist can well afford to do, just as one can allow a baby to refuse to give up a rattle when he has already given up the butcher's knife. The baby is satisfied and so is the parent.

As the patient concluded this task, her attention was drawn again to the period of her life in which her mother's lectures had been given, the repetitions of these lectures, their

incompleteness, the unfinished task left to a little girl by her mother's death, and the necessity to speak to a child in simple and unqualified language before she is old enough for more complex adult understanding. Every effort was made to impress each of these specific points upon her, but always by the use of terms as general as possible.

Without giving the patient an opportunity to develop or elaborate these points, the suggestion was made that she might well begin the hitherto unrealized and unrecognized task of continuing for herself the course of sexual instruction which her mother had begun but had been unable to finish because of her death. She was urged that she might best begin this unfinished task by speculating earnestly and seriously upon what advice her mother would have given her during the years intervening between childhood and adolescence and between adolescence and adult womanhood. As she accepted this suggestion, it was amplified by additional instructions to take into consideration all intellectual and emotional aspects, all such things as physical, psychological, and emotional changes, development and growth, and most important to give full consideration to the ultimate reasonable goals of an adult woman, and to do so completely, fully, freely, and without fail, and to elaborate each idea in full accord with the facts appropriate to herself.

Immediately after this instruction was given, the patient was told that upon awakening she should repeat all of the various accounts she had given in this hypnotic session, preferably in their chronological order, or else, if she chose, in any other comprehensive form which she preferred. Thereupon she was awakened.

The patient's waking account was decidedly brief. She slowly combined everything which she had said into a single, concise story. Significantly, she spoke in the past tense: "My mother attempted to give me an understanding of sex. She tried to give it to me in a way that a child such as I was could understand. She impressed upon me the seriousness of sex; also, the importance of having nothing to do with it. She made it very clear to me as a child."

This account was given with long pauses between each sentence, as though she was thinking profoundly. She interrupted herself several times to comment on her mother's death and on the incompleteness of her instruction, and to remark that had her mother lived, more things would have been said. Repeatedly she said, as if to herself, "I wonder how mother would have told me the things I should know now."

The examiner seized upon this last remark as a point for terminating the session, and the patient was dismissed hastily. No attempt was made to guide her thoughts beyond the urgent instruction to speculate freely upon the things her mother would have told her and which she now needed to know. She was told to return in one week.

During this week the patient showed marked improvement. Her roommate reported "some crying, but of a different kind," and none of the previous depressed behavior. The patient seemed rather to be profoundly self-absorbed, absent-minded, and puzzled; much

of the time she wore a thoughtful and sometimes bewildered expression. No attempt was made to establish any contact with the patient during the week.

### **THIRD HYPNOTIC SESSION**

Promptly upon her arrival for the third session the patient was hypnotized and instructed to review rapidly and silently within her own mind all of the events of the two previous sessions, to recall the instructions and suggestions which had been given to her and the responses she had made, to include in her review any new attitudes which she might have developed and to give full and free rein to her thinking, and finally to summarize aloud her ideas and conclusions as she proceeded with this task.

Slowly and thoughtfully, but with an appearance of ease and comfort, the patient proceeded to review these events freely, briefly, and with no assistance. Her final statement summarized her performance most adequately:

You might say that mother tried to tell me the things I needed to know, that she would have told me how to take care of myself happily and how to look forward confidently to the time when I could do those things appropriate to my age, have a husband and a home and be a woman who has grown up.

The patient was asked to repeat this review in greater detail, in order to be sure that toward both her childhood and adult years she had achieved suitable adult attitudes. As these instructions were repeated slowly and emphatically, the patient became profoundly absorbed in thought, and after a short while she turned with an alert, attentive expression, as if awaiting the next step.

Instruction was given that when she awoke she was to have a complete amnesia for all three sessions, including even the fact that she had been hypnotized, with the exception that she would be able to recall her first stilted, prim, waking account. This amnesia was to include any new and satisfying understanding she had come to possess. She was told further that upon awakening she would be given a systematic review of her sex instruction as the hypnotist had learned about these matters from her, but that because of the all-inclusive amnesia this review would seem to her to be a hypothetical construction of probabilities built by the hypnotist upon that first waking account. As this occurred, she was to listen with intense interest and ever growing understanding. She would find truths and meanings and applications understandable only to her in whatever was said, and as those continued and developed, she would acquire a capacity to interpret, to apply, and to recognize them as actually belonging to her, and to do so far beyond any capacity that the hypnotist might have to understand.

At first glance it would seem strange to suggest repression of insight as one of the culminating steps in a therapeutic procedure. In the first place it implies that much of the affective insight may either remain or again become unconscious without lessening its therapeutic value. Secondly, it protects the subject from the disturbing feeling that anyone else knows the things about her which she now knows, but which she wishes to keep to

herself; hence the importance of the suggestions that she would understand far more than the hypnotist. Thirdly, by looking upon the material as a purely hypothetical construction of probabilities by the hypnotist, the patient was provided with an opportunity to recover insight gradually, in a slowly progressive fashion, as she tested this hypothetical structure. Had the same material been presented to her as definite and unquestionable facts, she might again have developed sudden repressions with a spontaneous loss of all insight. If that occurred, the investigation would have had to be undertaken afresh. On the other hand, where a certain measure of repression is ordered by, the hypnotist, it remains under his control, because what the hypnotist suppresses he can recover at will. Thus her degree of insight remained under full and complete control by the hypnotist, so that he could at any time give the patient full insight or prepare her for it again. Finally, by depriving the patient temporarily of her new and gratifying insight, a certain unconscious eagerness and need for further knowledge was developed which assisted in the ultimate recovery of full insight.

When these instructions had been repeated sufficiently to effect a full understanding, the patient was awakened with an amnesia for all events except the stilted, prim account which she had given at the end of the first therapeutic session. Reminding her of that account, the hypnotist offered to speculate upon the probable nature and development of the sex instructions which she had been given. He proceeded to review all the material she had furnished in general terms that permitted her to apply them freely to her own experiences.

Thus the patient was given a general review of the development of all the primary and secondary sexual characteristics: the phenomenon of menstruation, the appearance of pubic and axillary hair, the development of her breasts, the probable interest in the growth of her nipples, the first wearing of a brassiere, the possibilities that boys had noticed her developing figure and that some of them may have slapped her freshly, and the like. Each was named in rapid succession without placing emphasis on any individual item. This was followed by a discussion of modesty, of the first feelings of sexual awareness, or autoerotic feelings, of the ideas of love in puberty and adolescence, of the possible ideas of where babies came from. Thus without any specific data, a wide variety of ideas and typical experiences were covered by name. After this, general statements were made as to the speculations that might have passed through her mind at one time or another. This again was done slowly and always in vague general terms, so that she could make a comprehensive and extensive personal application of these remarks.

Shortly after this procedure was begun, the patient responded by a show of interest and with every outward manifestation of insight and of understanding. At the conclusion the patient declared simply, "You know, I can understand what has been wrong with me, but I'm in a hurry now and I will tell you tomorrow."

This was the patient's first acknowledgment that she had a problem, and instead of permitting her to rush away, she was promptly rehypnotized and was emphatically instructed to recover any and all memories of her trance experiences that would be of use. By stressing in this way the fact that certain of those memories would be valuable and

useful to her, the patient was led to view all of them as possibly useful, thus withdrawing her attention from any conflicting feelings about those memories. This assists in their free and full recovery by the patient. She was told that she should feel free to ask for advice, suggestions, and any instruction that she wished, and to do so freely and comfortably. As soon as this instruction had been firmly impressed, the patient was awakened.

Immediately, but with less urgency, she said that she wanted to leave but added that she would first like to ask a few questions. When told that she might do so, the patient asked the hypnotist to state his personal opinion about "kissing, petting, and necking." Very cautiously and using her own words, approbation was given of all three, with the reservation that each should be done in a manner which conformed with one's own ideals and that only such amorous behavior could be indulged in as would conform to the essential ideals of the individual personality. The patient received this statement thoughtfully and then asked for a personal opinion as to whether it was right to feel sexual desires. The cautious reply was given that sexual desire was a normal and essential feeling for every living creature and that its absence from appropriate situations was wrong. To this was added the statement that she would undoubtedly agree that her own mother, were she living, would have said the same thing. After thinking this over, the patient left hastily.

### **THERAPEUTIC OUTCOME**

The next day the patient returned to declare that she had spent the previous evening in the company of her suitor. With many blushes she added, "Kissing is great sport." Thereupon she made another hurried departure.

A few days later she was seen by appointment and held out her left hand to display an engagement ring. She explained that as a result of her talk with the hypnotist during the last therapeutic session, she had gained an entirely new understanding of many things, and that this new understanding had made it possible for her to accept the emotion of love and to experience sexual desires and feelings, and that she was now entirely grown up and ready for the experiences of womanhood. She seemed unwilling to discuss matters further, except to ask whether she might have another interview with the hypnotist in the near future, explaining that at that time she would like to receive instruction about coitus, since she expected to be married shortly. She added with some slight embarrassment, "Doctor, that time I wanted to rush away.... By not letting me rush away, you saved my virginity. I wanted to go right to him and offer myself to him at once."

Sometime later she was seen in accordance with her request. A minimum of information was given her, and it was found that she had no particular worries or concern about the entire matter and was straightforward and earnest about her desire to be instructed. Shortly afterward the patient came in to report that she was to be married within a few days and that she looked forward happily to her honeymoon.

About a year later she came in to report that her married life was all she could hope for, and that she was anticipating motherhood with much pleasure. Two years later she was seen again and was found to be happy with her husband and her baby daughter.

## **SUMMARY AND DISCUSSION**

For special reasons the treatment of this patient had to be approached with many precautions. The circumstances of her illness made a direct approach to her problem (whether by a man or a woman) dangerous because such an approach invariably caused an acute increase of her panic and of her suicidal depression. She could be treated, if at all, only by creating an elaborate pretense of leaving her problems quite alone, without even letting her realize that any therapy was being attempted, without acknowledging the development of a relationship between the patient and the physician, and without open reference to the experiences which had precipitated her illness.

For these reasons the treatment was begun by pretending to treat someone else in her presence, and, through this means she was slowly and gradually brought into a hypnotic state in which her own problems could be approached more directly.

From this point on the treatment proceeded along lines which are the reverse of the usual psychoanalytic technique. Some points seem to be worthy of special emphasis.

Instead of depending solely upon memory to recover important experiences out of the past, the patient under hypnosis was translated back to a critical period of her childhood, so that in that state she could relive or revive the general quality of the influences playing upon her, but without recapturing the details of specific scenes and episodes. Instead of stirring them up and making them conscious, there was a deliberate effort to avoid the induction of any feelings of guilt or fear. Similarly, instead of insisting upon total conscious recall, permission was freely granted to the patient to forget painful things, not only during but also after the hypnotic treatment. Underlying this permission to forget was the confidence that even those facts which were consciously forgotten could be recovered during the hypnosis when needed for therapeutic use, and that their therapeutic efficacy would continue even during the posthypnotic repression.

The hypnotist's attack on the patient's rigid superego was interesting from various points of view. Particularly noteworthy, however, was the fact that the attack on the superego began with a complete support of all the most repressive attitudes which the patient attributed to her dead mother. It was only by forming a bond in this way between himself and the mother that he was able later slowly to undermine the rigidity of this repressive figure and thus to penetrate the patient's tense and automatic defenses of her mother's dictates. Another significant point is the method used by the hypnotist to help the patient silently assemble her ideas before communicating them. This seemed to assist materially in reducing the patient's fear of remembering presumably because it is not as difficult to recall embarrassing things which one can keep to one's self as it is to bring them to mind with the knowledge that one must confess them at once; moreover, once such things have been reviewed in thought, it becomes easier to talk of the thoughts than it would have

been to talk of the events themselves. This two-stage method of recalling and assembling data before communicating it might have its usefulness in analysis as well.

A point at which the work of the hypnotist coincides closely with that of the analyst is in the use of repetitions in many forms and at each age level investigated. This use of repetitions is quite similar to what is found to be necessary in analysis as well.

In understanding the course of this treatment and of the patient's recovery, there are many gaps in the material, gaps which could be filled in only by conducting a treatment of this kind in a patient who had been under a fairly prolonged analysis.

There are many questions we would like to have answered. Was the basis of the mother's overwhelming authority primarily affection or hostility and fear? Were the dead mother and the dead friend equivalent? If the hypnotist had said instead that he was the dear friend, and that as the dead friend he encouraged and approved of her love-making with the dead friend's husband (an equivalent of a mother telling her that she could make love to her father), would this impersonation of the friend by the hypnotist have freed the patient from guilt feelings and from her hysterical depression without the induced regression to childhood? What was the mechanism of the cure? Was the hypnotist equated to her mother, and thus enabled to remove the mother's taboos? Or was the fiancé at first a surrogate father until the hypnotist took over the father's role, thus removing it from the man and thereby making it possible for the patient to have an erotic relation with the man without a barrier of incest taboos? What was the role of her orality and its significance in relationship to the vomiting? In general, what was the role of all those basic facts of her early life, which must have determined the patient's relationship to her parents and to people in general?

The answers to these gaps in information is challenging, both from a theoretical and from a factual point of view. The knowledge of these facts is indispensable for an understanding of the structure of the illness and the dynamics of the recovery. But the fact that recovery could take place so quickly and without hospitalization, in face of the fact that there were so many things which the hypnotist never discovered and that the patient did not know, also has its important theoretical consequences. It faces us with the question: if recovery can take place with the gain of such rudimentary insight, what then is the relationship between unconscious insight, conscious insight, and the process of recovery from a neurosis?

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<sup>1</sup>These two points are of special interest to analysts who are accustomed to demand of their patients an awareness of their illnesses and of the need for treatment, and an acceptance of the therapeutic relationship to the analyst. While this is a valid basis for therapeutic work with many of the neuroses, it is an impossible goal in dealing with many neurotic characters and with those neuroses which are accompanied by severe affective disturbances, and with psychoses. Analysts who become too completely habituated to their own method may delude themselves with the idea that their passivity is pacifying, and may overlook the extent to which it may be an assault in terms of the patient's unconscious emotional reactions. The approach described above, therefore, is an illustration of a method whereby, under appropriate circumstances, these difficulties can be circumvented.

<sup>2</sup>Here again is an interesting and significant departure from analytic technique, in which the implicit and sometimes explicit challenge is to break through every repression. The rigidity with which this axiom of analytic technique is applied may account for some analytic failures; it may also be an example of conflict between research and therapeutic purposes.

<sup>3</sup>The search back toward reliving an earlier period in the life of a hypnotic subject occurs in either of two ways. First there can be a "regression" in terms of what the subject as an adult believes, understands, remembers, or imagines about that earlier period of her life. In this form of "regression" the subject's behavior will be a half-conscious dramatization of her present understanding of that previous time, and she will behave as she believes would be suitable for her as a child of the suggested age level. The other type of "regression" is far different in character and significance. It requires an actual revivification of the patterns of behavior of the suggested earlier period of life in terms only of what actually belonged there. It is not a "regression" through the use of current memories, recollections, or reconstructions of a bygone day. The present itself and all subsequent life and experience are as though they were blotted out. Consequently, in this second type of regression the hypnotist and the hypnotic situation, as well many other things, become anachronisms and nonexistent. In addition to the difficulties inherent in keeping hypnotic control over a total situation, this "deletion" of the hypnotist creates an additional difficulty. It is not easy for the hypnotist to enter into conversation with someone who will not meet him until 10 years hence. This difficulty is overcome by transforming the hypnotist into someone known to the patient during the earlier period, by suggesting that he is "someone whom you know and like and trust and talk to." Usually a teacher, an uncle, a neighbor, some definite or indefinite figure belonging to the desired age period is selected automatically by the subject's unconscious. Such a transformation of the hypnotist makes it possible to maintain contact with the subject in the face of the anachronism mentioned above. Unfortunately many investigators of "hypnotic regression" have accepted as valid that type of "regression" which is based upon current conceptions of the past; and they have not gone on to the type of true regression in which the hypnotic situation itself ceases and the subject is plunged directly into the chronological past.

<sup>4</sup>The phrase, "It would make mother sick," may have had much to do with her illness: Mother had had intercourse and died. Her friend, who was a mother substitute had had intercourse and died. The same thing was about to happen to the patient. Mother has said it, and it must be true. It is a child's passive acceptance of logic from the image with which it has become identified.

<sup>5</sup>Here is an important bit of profound, unconscious psychological wisdom. The commands had been repeated incessantly in the patient's mind, whether or not in reality they had been repeated as incessantly by the mother. This repetition, which is the essence of all neurosis (Kubie, 1939), must occur because of the resurgent instinctual demands. Hence the patient indicates in the word always her continuing secret insurrection against a continuing prohibition, and therefore her ever-present state of fear.

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# The Experimental Demonstration of Unconscious Mentation by Automatic Writing

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For the most part our knowledge of psychological processes has been achieved through clinical observations. That such knowledge is valid is readily admitted, but its confirmation by other methods is essential. For this reason the application of experimental procedure is a desirable means of retesting conclusions reached clinically. In this way hypotheses may be subjected to direct tests from which the extraneous forces inevitable in clinical situations may be excluded. In an effort to develop methods for this sort of laboratory investigation, the experimental procedures reported here were undertaken.

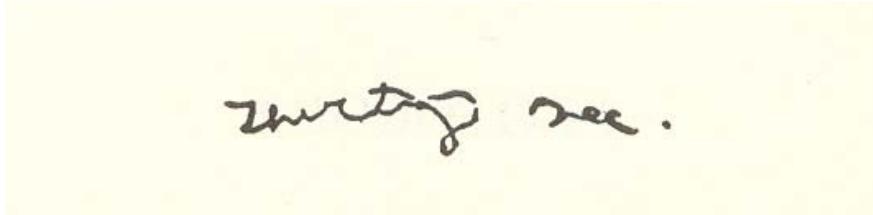
## **PROTOCOL I**

During an evening gathering of about ten college people a discussion arose about hypnotism and the role of the unconscious in conscious actions. The writer claimed that people could perform an act consciously which would express fully all of their conscious purposes, but which could simultaneously have another unconscious meaning, and that by appropriate measures this unconscious meaning could be brought fully into consciousness. This gave rise to much argument, and presently one of the subjects of the writer's earliest experiments with hypnotism volunteered her services.

In casting about for some act which could be regarded fully so that no doubts might arise, the suggestion was made that the subject be asked to write something, thus making the performance tangible. Accordingly, the subject was told *that she was to write something, in full conscious awareness of what she was writing, that her writing was to be clearly legible to everyone present, but that in writing it her unconscious would so guide her hand that she would in actuality write something beyond that which could be read either by herself or by the others present.* To these instructions a flippant reply was given, not in keeping with the serious general tone of the discussion, namely, "You say words, but they don't make sense."

There followed further discussion about what should be written. The author proposed that all present should guess the length of time that it had taken a member of the group to move a certain article in the room. The guesses ranged from two seconds to half a minute, the subject alone venturing the absurd estimate of "two to three minutes." Each one defended his own guess warmly, but the subject was peculiarly insistent upon her accuracy. After some general argument the author suggested to the subject that she write

her *unconscious guess* as to the length of time involved. She protested emphatically that her conscious and unconscious guesses would be the same, and that there was no point in writing it down since she had already put it into words and defended it orally. However, in response to the author's insistence she began to write. As she set pencil to paper, she looked startled and declared emphatically, "It wasn't either—it was at least two minutes." She then proceeded to write rather slowly and in the uncertain, juvenile script shown in the illustration. Again as she wrote she said, "It wasn't either, I know it was at least two



minutes, nearer three." When finished, she was asked if she knew what she had written. She replied, "Yes, I know, but it isn't so." She was promptly told not to say aloud what she had written, and the paper was passed around with the injunction that each should read it silently.

When all had examined it, the subject was asked what she had written. She replied, "I wrote 'thirty seconds,' but that isn't right because it was at least two minutes, if not three." After scanning the writing again, the author asked if the group accepted her statement of what she had, written. Some reexamined the writing but all agreed that it read "thirty seconds." The subject was reminded of the original discussion about hidden unconscious meanings and asked if she was sure she had read it correctly. To this she replied, "As soon as I started to write, I knew I was going to write 'thirty seconds.' I knew that that was wrong, but my hand just went ahead and wrote it." Again she was asked if she was sure she had read her writing correctly. She replied, "Well, you will have to admit that that's a t and an h and an i. Look at that r—you can't mistake that, or the t. It just has to be thirty. You have all the letters there. I admit the writing is bad, but you try holding paper on your lap when you write and your writing won't be so good either. I'm sure that that s is an s." Here the subject asked several of the group individually if they, too, felt certain of the identity of the s. Finally accepting their reassurances, she continued, "That's a period after c, which makes the abbreviation for seconds. 'Thirty sec.' is what it reads, with seconds abbreviated, but my handwriting would be better if I had a better place to put the paper." Again the author asked, "But really, haven't you written something more? Can't you read something more than just 'thirty sec.?' She scanned the paper carefully, as did the other members of the group, but all insisted that the writing clearly and legibly read "thirty sec." The subject continued to insist that she knew what she was going to write immediately upon the initiation of the act of writing, and that she had written exactly what was in her mind.

She was then requested to answer the following questions *by means of automatic writing*, as a method of securing unconscious responses directly. The questions and the answers obtained by the automatic writing are given verbatim:

Q. Does this writing read "thirty sec."?

A. Yes.

Q. Does the writing have any additional meaning?

A. Yes.

Q. Can it be read?

A. Yes.

Q. Has anybody read the writing correctly?

A. No

Q. Is "thirty sec." the correct reading?

A. No.

Q. Is something omitted in reading "thirty sec."?

A. Yes.

Q. Will you write that which has been omitted?

A. Yes.

Q. All right, write what has been omitted.

A. 8 [written as a numeral].

Q. What does the writing really read, then?

A. 38 sec. [in numerals.]

Immediately after writing the last reply, the subject picked up the original writing and declared, "Yes, it does read 38, only I didn't realize that y was written as an 8. I can see it now. I wasn't thinking of numbers and I was sure that *thirty* was wrong. Yet I knew that the t and the r were plain, and I was sure the s was an s. I can see the 8 now, but I couldn't before even though I know now that I wrote it. I was so sure you were wrong when you acted as if I had written something I didn't know about."

The subject was then asked to write automatically the replies to the following questions, which are given verbatim with their answers:

Q. Do you recall the instructions I gave you about combining conscious and unconscious activity?

A. Yes.

Q. Is this writing your demonstration of this?

A. Yes.

## **Summary of Protocol I**

The main steps in this observation can be summarized as follows;

1. A general discussion of the question of whether a single act can simultaneously express both a conscious and an unconscious meaning and purpose.
2. The decision to test this through automatic writing.
3. An offer to serve as the “test animal” by a woman who had frequently been subjected to hypnosis by the experimenter.
4. The request made that clearly and consciously she should write something which contained a concealed double meaning.
5. Her flippant retort.
6. The execution of this order: while she is thinking and saying “two to three minutes,” she writes out in script “thirty sec.” in such a way that the *y* conceals the number 8 and can also be read to mean “38 seconds.”
7. This is done so cleverly that at first no one except the experimenter consciously recognizes the presence of the concealed figure 8.
8. When asked to describe *aloud* what she had written, the subject insists that she has written “thirty seconds.” When asked to describe this by *automatic writing*, the subject writes “38 sec.,” thus indicating that on an unconscious level she was fully aware of the little joke with which she had carried out the experimenter’s request, although on a conscious level she had no knowledge of it.

## **Discussion**

In the above experiment two types of behavior attract attention. The first of these is the subject’s flippant and ambiguous reply when given her instructions. By replying in this way she consciously neither accepted nor rejected the instructions, but left herself free to react to the instructions as she chose. Consciously she accepted the task; but at the same time by this flippant attitude she shifted onto her unconscious the guidance of her response.

To support this shift another simple technique of self-distraction was employed: the grossly exaggerated guess which she made about the time. Although of the others present none guessed more than a half a minute, the subject insisted that the action had taken two to three minutes. Thus she placed herself at variance with the entire group and gave herself a conscious issue to battle over. As a result, as she began to write, she was concerned not with the identity of *what* she was writing, but rather with the problem of her correctness.

Then, after she had completed her writing, and her defenses against full conscious awareness were threatened again as the experimenter asked her to examine her writing, she rendered this dangerous procedure harmless by isolating the individual letters one from another. Even so the irregularity of the *y* raised a pressing problem. From this she extricated herself by stressing the difficulty of writing on paper held in her lap (in itself a valid rationalization) and then furthered this distraction by raising an immediate and insistent doubt concerning the identity of the letter *s*, thereby displacing to safer territory the doubt properly centering about the *y*. This was followed by still further distraction of her attention to the period and to the abbreviated form of the word. Having thus identified the two parts, she was able again to identify the phrase as a whole, avoiding as she did so any other possibility. Thus, with the irregularity of the critical letter *y* explained plausibly by the physical difficulties of writing, and its identity bounded on both sides by clearly identified letters, any critical conscious consideration of its meaning was precluded.

When she was pushed still further to search for hidden meanings in what she had written, the emotions involved in the unconscious purpose to keep her little joke to herself were expressed as an anxiety concerning the experimenter, later described as the feeling, "I was so sure you were wrong."

Finally, mention must be made of her use of two different types of written symbols, the word form and the numerical form, to express a unitary thought. The tendency for one pattern of thinking to persist, and the difficulty in shifting to another type, are generally recognized. The task imposed on the subject of this experimentation implied the simultaneous performance of two different types of mental activity, one of which would be obvious and attention-compelling and thus able to establish a pattern of mental activity that could obscure and inhibit the recognition of the other. Hence the written production began with a word and ended with a word, with the numerical symbol secreted in a part of the first word, although when seen in isolation it is easily recognizable.

Thus by writing the phrase "thirty-eight seconds" with the eight as a numerical symbol forming the *y* of the word *thirty*, by apparently failing to understand instructions, by developing minor affects of a mild anxiety, by rationalizing realities, and by employing techniques of self-distraction and mixing together two different types of symbolic expression, she was able to execute consciously an act which in itself was fully expressive and complete, but which simultaneously possessed an additional unrecognized significance at another level of mentation. By a technique of automatic writing this hidden meaning was revealed by the subject, who only then could recognize it consciously.

## **PROTOCOL II**

A 22 year-old girl, a college graduate and member of the staff, had been one of those present when the previous experiment had been performed. She was interested in the possibility of independent unconscious thinking and asked to be hypnotized and to be taught automatic writing as a possible means of identifying some of her own inner conflicts. After some discussion an appointment was arranged, and that very evening an attempt was made to hypnotize her.

She was exceedingly resistive, and finally it became necessary to pretend to abandon the attempt. The hypnotist feigned interest in a radio program and somewhat discourteously ignored her request that he try again. She became resentful at this and retaliated, perhaps, by going into a spontaneous sleep. As soon as she was sleeping soundly, she was roused gently, and then by slowly graduated suggestions she was led into a fairly deep hypnotic sleep. In this state a domineering type of suggestion was employed, and she was literally forced to walk about, to change her position, and to manifest catalepsy, in order to induce a deeper trance.<sup>1</sup>

During these procedures casual mention was made of automatic writing—a few general remarks, followed by a vague hint that she herself might sometime do automatic writing. Then, after further and more explicit discussion, a definite suggestion was made that she write automatically at once. She was seated at a desk and instructed to dream of pleasant things of long ago, and told that as she did this her hand would automatically write some simple unemotional statements. She complied fairly readily, showing the typical juvenile script of automatic writing, and wrote, "The lady washed my hair," followed by, "Cats and dogs fight."

When it was observed that her writing was legible and her arm movements free, she was given the further suggestion that after awakening, whenever the experimenter rapped on his desk or chair, she should automatically write the sentence, "'Twas a dark and dreary night." She was also instructed to write legibly, easily, rapidly, and without paying any conscious attention to her hand.

The subject was wakened, and subsequently eight times during the course of the evening she was induced to write the phrase, "'Twas a dark and dreary night," in response to eight separate tapping signals. Some of these were done while she was awake, but with her attention distracted. Some were done while she was again in a state of hypnotic sleep. At the end, under hypnosis, she was instructed to remember nothing of the entire complicated activity of the evening except the fact that she had been in a trance—once. It was this command which became the storm center around which the experiment focused.

Several times during the course of these observations, when questioned as to the number of times she had written the posthypnotic phrase, the subject became confused and had made varying mistakes. It was evident, however, that she was always struggling against a

too-compliant acquiescence to the suggestions which had been given her under hypnosis. The same attitude was indicated now at the end of the experiment.

For some minutes she was allowed to sleep quietly, after which she was awakened and a casual conversation was resumed. Suddenly this was interrupted in order to ask, "How many times have you been in a trance this evening?" She looked puzzled and then very slowly and very thoughtfully replied, "three times, maybe four, but I wouldn't know how many because *all I want to say is 'once'* and I can't figure out why I should want to say 'once.'" The remark was made casually, "Well, if you want to say numbers and are interested in saying numbers, just say the first number that comes into your mind." She replied with unwonted alacrity, "Thirty-five." The experimenter had expected her to say "eight," thus completing her rejection of the general instructions for amnesia which she had begun in her statement about the number of times she had been in a trance. Although she had wanted to reply "once" in obedience to my instructions, she actually had answered "three to four."

She was asked, "Why did you say, 'thirty-five'?" She answered, "I don't know. That was the first number that came to my mind that seemed to be right." Asked, "Why is it right?" she answered, "It just seems that way." "Has it any meaning?" "Well, all numbers have meaning, and I presume you would say then that thirty-five has a meaning." The experimenter wrote the number 35 and asked her to look at it carefully and to tell what it meant. She looked confused and puzzled, kept glancing at the number and then at the experimenter as if she could not understand what was meant. Finally she declared that the request was meaningless to her: "I just can't understand what you mean." Her whole manner suggested that she was blocked and unable to think clearly. In silence the experimenter wrote clearly on the paper, "7 plus 1 equals 8, which is the reason for saying 35." She still looked at it as blankly as a schoolchild struggling helplessly with a problem in arithmetic, and when told to think that over carefully, she smiled in an amused fashion, read it aloud, and said, "That doesn't mean anything to me. What has seven plus one equals eight got to do with thirty-five? There isn't any connection." Here again she seemed to show the pseudo-stupidity of a frightened schoolchild whose unconscious affects have got in the way of the thinking processes. She was asked, "Does your unconscious know what that means?" She replied, "I don't know, maybe it hasn't got any meanings."

The suggestion was given that her hand write automatically. She looked rather puzzled, picked up the pencil, and then glanced up for a cue. She was asked, "Does your unconscious understand that sentence?" She continued to look at the experimenter with a puzzled expression while her hand wrote freely in typical automatic script, "yes." When she had finished writing, the pencil dropped to the paper and she became aware that her hand had written. She looked at the word "yes," spelled it out, and asked, "What does that mean? Why did my hand write that?" The experimenter suggested, "That is the answer to my question," to which she replied, "What question?" The question was repeated, "Does your unconscious understand that sentence?" She again looked at "yes," grasped its relationship to the question, but still looked puzzled as to its meaning. Then she was asked, "Has that statement anything to do with the instructions given you in the last

trance?" Again she wrote "yes," while still studying the experimenter's face as if she did not understand what he said. As before she became aware of having written "yes" only as her pencil dropped on the page. She promptly inquired, "What does all this mean?" This query was answered with the further question, "Has it got anything to do with something you have done?" Again the automatic writing answered "yes."

The following series of questions was then asked, to each of which the subject replied with automatic writing, each time showing bewilderment and an inability to understand as she watched her hand write. The manner of asking each question was to address it to her hand as if it were a third person which will explain the reference to the subject herself as "she."

Q. You have written a sentence a number of times for me?

A. Yes.

Q. You know how many times you have written it?

A. Yes.

Q. Could you tell me how many times?

A. Yes.

Q. Would she know?

A. No.

There the subject interrupted to declare, "That isn't so. I know how many times I wrote it. Look, here I wrote it three times, and there once, that makes four, and here are two more, and there's another, no, that's the same one, no, here's that one—one, two, three, four, five, six, seven," pointing each time, "seven times I wrote it. You can see for yourself." In making this count, and pointing each time, she had moved her hand repeatedly back and forth over the eighth writing without noticing it, although it was fully as plain as the rest of the writing.

Again addressing the subject's hand:

Q. That's the right count for her, isn't it?

A. Yes [a pause, and then in fainter characters and less clearly formed letters], for her.

As the subject read this she demanded, "What does that mean, 'for her'? I'm the only one that's writing—'for her'—Oh yes, that's what you just said when you spoke."

Q. Shall we tell her?

A. No [pause], not yet.

Here the subject read this reply aloud wonderingly, repeated "not yet," then in a tone of marked affect demanded, "Say, what's going on here?" Then apologetically, "Oh, I beg your pardon, Dr. Erickson, I didn't mean that, I'm sorry."

Q. It's all right, isn't it?

A. Sure!

Here the subject read her answer aloud saying, "Sure? Why, Dr. Erickson, I wouldn't answer you like that, I don't mean to be impolite. You know that, don't you? I didn't write that."

Q. Was that number a chance selection?

A. No [written in large characters with pencil pressed heavily].

Q. Has that number the same significance as the answers you have been writing? [pointing to the previous answer, "No, not yet."].

A. Yes [written emphatically].

Q. What do you think when I write [suiting the action to the word] "7 plus 1 equals 8 which is the reason for saying 35?"

As this was written, she declared, "I just got a wild desire to snicker, and I don't know why. You are so serious, and it seems so silly." But as she was making this statement, her hand was writing automatically, "You know too much," concluding the writing by banging the pencil down to form a period. This attracted her attention, and she read it over and over in an abstracted, puzzled fashion, glancing up from time to time, trying to speak but apparently blocking each time, glancing down at the writing immediately each time that the words failed to come.

After some patient waiting:

Q. Has that [pointing to the written equation] got anything to do with the instructions given in the last trance?

A. [Verbally] Last trance, why, I can't remember—last trance, which one—what happened—I—I—

Here she was interrupted by her hand again banging the pencil on the desk, and she became aware consciously that she had written, "You are too wise." She read it aloud, glanced at the experimenter, repeated it, and said, "Why, my hand must mean you—

that's impertinent. —Just like this is [pointing to the "You know too much"]. I don't mean to be disrespectful—it isn't me—it's my hand [a pause]. Why, you and my hand are talking to each other—what are you talking about—tell me—tell me." Here the subject became so insistent that the experimenter was forced to yield.

Q. Would you like to know?

A. Yes [pause], tell her.

Q. Will you tell her?

A. No [pause], you.

During this questioning the subject watched her hand in a fascinated fashion and seemed greatly puzzled by the replies her hand was giving.

Q. How many times have you written, "'Twas a dark and dreary night'?"

A. [Verbally] I wrote it seven times—but what has that got—oooh, ooh, I wrote it eight times—I forgot—you told me when I was asleep to forget everything—I only forgot part—I remember now—I wrote it here [searching the paper and identifying the writing correctly] see seven and one more, that makes eight, just like you said, but what has that got to do with thirty-five?

Q. Will you tell her?

A. No—you [automatic writing].

Q. I will tell her, but you fill in my explanation

My explanation was: "Look at thirty-five—you see three, five." Here the subject interrupted, "Oh, I see it now. You told me to forget everything in the last trance and you rapped on the desk and I wrote and I remembered that I wrote it—I didn't forget it and I wanted to tell you that. I still remembered that I had written it eight times but I only remembered writing it seven times, if you get what I mean, and when you asked me to give a number, I thought I was just giving any number. But now I can see that I was telling you eight times, and I was worried that you wouldn't understand, and when you wrote 'seven plus one equals eight which is the reason for saying thirty-five' I knew you understood, and I thought you were too smart. No, that isn't what I said, I wrote 'you are too wise,' but I meant too smart. I just told you thirty-five because that meant eight times. I can see it just as plain now."

The subject then stated that as she had written the two "impertinent" statements, she had had a "wild desire to snicker" but had controlled herself for fear of giving offense, and that this desire had been replaced by a sense of elation and satisfaction.

## **Summary of Protocol II**

1. Request of a young female graduate student to be hypnotized and to be taught automatic writing.
2. Unsuccessful effort to hypnotize her.
3. Pretense of abandoning this effort.
4. Spontaneous sleep.
5. Spontaneous sleep converted into hypnotic sleep.
6. Forceful deepening of hypnotic sleep with induction of vigorous activity.
7. First automatic writing, consisting of irrelevant phrases while daydreaming.
8. Posthypnotic suggestion to write a special posthypnotic phrase whenever a tapping signal was given.
9. At this point the subject was put through a complicated series of maneuvers, some of them while awake but under the guidance of a posthypnotic suggestion, some of them under superinduced repetitions of the hypnotic state. During the course of these complicated tests, on eight occasions she wrote down the posthypnotic test phrase in response to the tapping signal.
10. Finally, while asleep, she was given the suggestion that she should remember nothing of the entire evening's experience except the fact that she had been in a hypnotic trance once. The obedience to this command was used as the experimental test situation.
11. Quiet sleep for several minutes, then awakened.
12. Asked how often she had been in an hypnotic state, she struggled against the suggestion (10), but acknowledged that she had a strong impulsion to say "once" although she knew it was more than that.
13. Finally came the number test with a concealed double meaning. When asked to say the first number she thought of, she said "thirty-five" and could give no reason for saying it.
14. Series of steps by which the point was made clear to the hypnotist and to the subject that 35 was an elliptical and secretive method of writing, "three plus five equals eight," to indicate the number of times which she had written the posthypnotic phrase. During this phase the patient's replies were divided so completely as almost to indicate a split into two organized egos, her conscious ego and the unconscious pseudoego organized around her automatic writing hand.

## **Discussion**

For a definite reason these somewhat rambling observations were made without a carefully prearranged program. Their immediate goal was simply to demonstrate experimentally, and beyond any possible doubt, the fact that consciously chosen words, thoughts, and acts can mean more than one thing at a time: their conscious or manifest content on the one hand, and a latent, unconscious content on the other. Thus in these experiments what has long been known to be true for dreams is shown to be true for other human psychic processes. The more significant ultimate purpose of these random observations, however, was to seek out ways in which the technique of hypnotism and more particularly of automatic writing could be used for experimental purposes, and to

suggest specific problems to which they might be applied. The experiments give rise therefore to various somewhat heterogenous reflections.

1. In the first experiment one is struck by the versatility of the unconscious with respect to the methods it employs in order to dissimulate its purposes. The technique illustrated in the first protocol offers an opportunity to study the relationship between specific types of normal or neurotic characters and the various methods of unconscious dissimulation which different neurotic types habitually employ.

The development of such a study in relation to the personality as a whole necessitates a simultaneous study of the subject by psychoanalysis.

2. In the first experiment devices are used unconsciously which are familiar to us chiefly in humor. It would seem, therefore, that humorlessly and quite without conscious comic intent the unconscious can use irony, punning, and the technique of the puzzle. In short, the techniques of conscious humor are an earnest and serious matter in unconscious psychic processes. This is always particularly disconcerting when weighty and significant problems are treated by means of unconsciously chosen representatives and devices which to our conscious judgments seem ridiculous and trivial. This has been observed repeatedly in dream analysis, and it is clearly demonstrated here in automatic writing and hypnosis. There are few findings in the field of psychoanalysis, or its experimental study through hypnotism, which excite more skepticism than does this observation.

3. In the second experiment described above two other interesting facts are presented for consideration:

- a. The seemingly unmotivated elation which arose when the subject put over a secret and unconscious defiance suggests a mechanism for certain types of elations in patients.
- b. The particular kind of block in thinking which was produced during the course of the experiment is strongly reminiscent of thinking difficulties observable in schoolchildren. There is a hint here that the further elaboration of this type of investigation may be of use to educators in the problems of some children who, despite good native gifts, fail in academic studies.

In conclusion we may say that these experiments demonstrate not merely the coexistence of hidden meanings in conscious acts, but also carry the promise of usefulness for an experimental attack on many significant problems. It is obvious, however, that all such work demands a close collaboration between those familiar with experimental work in the field of hypnosis and those familiar with the psychoanalytic technique. For adequate development of the applications of such experiments to the problems involved in understanding psychic dynamisms, it would be advisable to have the subjects under psychoanalytic study in order to observe fully their reactions to the experimental procedure, to determine the influence of the experiment upon the subject, and to throw light on analytic theory and its applications.

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<sup>1</sup>The domineering type of suggestion employed here is used reluctantly and only under special circumstances such as this. This is not the place for a full discussion of the relationship of the technique employed to the underlying unconscious fantasies which the subject brings to the hypnotic experience. Empirically, however, it has been found necessary at times, when dealing with subjects who consciously approach the experience with enthusiastic cooperation but with exceptionally intense unconscious resistances, to subject them to this type of exercise before undertaking any steps relating to the experiment itself.

# **The Use of Automatic Drawing in the Interpretation and Relief of a State of Acute Obsessional Depression**

Milton H. Erickson and Lawrence S. Kubie

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No matter how accurate any body of scientific theory may be, its confirmation by the use of some technique other than that on which the theory first rested is always valuable. This is the most convincing way of ruling out the misleading influence of possible undetected methodological fallacies. With this in mind the following case is reported in detail because, by means of a nonpsychoanalytic technique, it illustrates a certain type of symbolic activity which is comparable in character to that studied by psychoanalysis in dreams and in psychotic states, and because of its clear demonstration of certain of the dynamic relationships which exist between conscious and unconscious aspects of the human psyche. Finally, it is reported because of our interest in this general type of technique as a means of uncovering unconscious material, and because of the challenge this may offer to certain phases of psychoanalytic technique (Erickson, 1937).

## **HISTORY**

A 24-year-old girl attended a clinical demonstration of hypnosis for a class in psychology at the university. At this demonstration particular emphasis was laid on the phenomenon of automatic writing and on the integrated functioning of subconscious processes as a seemingly independent entity in the total psyche. Afterward she inquired at length about the possibility of acquiring the ability to do automatic writing herself, and whether it was probable or even possible that her own unconscious might function in a coordinated, integrated fashion without her conscious awareness. Affirmative replies were given to both inquiries. Thereupon, as the explanation of her interest she volunteered the statement that during the preceding month she had become unhappy and uneasy in all her relationships for some unknown reason, and that she was becoming increasingly "worried, unhappy and depressed" despite the fact that she knew of no personal problem that could trouble her seriously. She then asked if she might try automatic writing through which her unconscious, acting independently, could give an account of whatever was troubling her. She was told that she might try this plan if she were really interested, and she responded that first she would like to have a formal psychiatric review of her life.

Accordingly, on the next day she was interviewed at length. The more important data obtained in this interview may be summarized as follows:

1. She was an only child, idolized by her parents, as they in turn were by her, living in what seemed to be a very happy home.

2. Her adjustments to college had been excellent until the preceding month, when her work had begun to suffer seriously in consequence of the sudden development of "worry," "concern," "fear," "unhappiness," and "horrible depression," which persisted almost continuously and for which she knew no cause whatever.
3. Recently she had been impelled to read some psychoanalytic literature and had found the subject of symbolism "most interesting and fascinating," but "silly," "meaningless," and "without any scientific validity." When asked for the references, she replied, "Oh, I just thumbed through a lot of books and journals in the library, but the only thing that interested me was symbolism."
4. For a month, and only since reading about symbolism, she had noted the development of a habit of "scribbling," "scratching," "drawing pictures and lines" when telephoning, studying, sitting in the classroom, or merely idling. She did this in an abstracted manner, usually without noting what she was doing, and thought of it merely as a sign of nervousness, of a desire to do something, but what this might be she did not know. She added that it was a "jittery" habit, objectionable because it "dirtied" the walls of telephone booths, the tablecloths in restaurants, and clean paper in her notebooks. (Throughout the interview the patient constantly demonstrated this "habit" most adequately, and it was obvious that she was not aware that she was doing so. Only at the close of the interview did she notice her scribbling, and remarked, "Well, I guess I have demonstrated that jitteryness better than I described it.")
5. Finally, the only personal problem which troubled her consciously was the fact that her three years at college had slowly and gradually separated her from her most intimate girlhood friend, in spite of that girl's regular weekend visits to the patient's home. The patient felt "lonely" and "resentful" about this, and said that during the preceding few weeks this angry feeling had increased until it had become an "uncontrollable resentment" over the loss of her friend. Nor was this obsessive resentment diminished by her realization that there was nothing she could do about it because of the ever-increasing divergence of their interests.

At the completion of her story, in the manner so characteristic of psychiatric patients who have told more than they know, she dismissed her account as probably being of no significance and asked insistently whether now, after hearing her story, it still was thought possible to secure by means of automatic writing the facts which were pertinent to her problem—"if there really were a problem." She thought that if she could read subsequently whatever she might write automatically, she could thus force herself to become consciously aware of what was troubling her. She also wanted to know if the examiner was confident that her subconscious could function in a sufficiently integrated fashion to give a coherent, understandable account.

In response to these anxious inquiries she was told emphatically that she could do exactly as she wished, and this was followed by repeated, carefully worded suggestions given to her in a gentle but insistent and attention-compelling fashion, which served to induce the passively receptive state that marks the initiation of a light hypnotic trance. These suggestions were to the effect that:

1. The time intervening until her appointment on the next day would be spent by her subconscious in reviewing and organizing all the material to which she wished access.
2. In addition, her subconscious would decide upon the method or means of communication and would select some tangible method by which to communicate what it had to say in a way which would be clearly understandable to the examiner and also in a fashion which could, at the proper moment, be clearly understood by the patient herself, so that no doubts or equivocations could arise.
3. Since she herself had suggested automatic writing, pencils and papers would be supplied, so that she would have an opportunity to employ that method in the same abstracted manner as that in which she had made her drawings during the interview.

(The reader will note that this suggestion actually constituted in its significance an indirect command to repeat her drawings in an intelligible fashion. It was given for the reason that automatic writing is often most difficult to secure on first attempts. It was to be expected that this would be even more true with this patient, whose entire story implied a resolute, unconscious reluctance to know certain things, despite her strong concomitant conscious desire to become aware of them. For her, therefore, automatic writing itself would have proved too revealing, if successful at all, and would have forced on the patient a too rapid realization of her repressed material. This, of course, would either have proved profoundly upsetting or would have summoned up vigorous repressive mechanisms to forestall the complete communication of her material.)

4. In the interval before her next appointment she was to keep her mind consciously busy with studying, reading light fiction, and social activities, thus supplying herself with innocuous topics for conversation on which she could report consciously, so that at the time of the appointment communications concerning her problem would be imparted entirely by subconscious automatic behavior (the drawing) and not become part of her conscious speech.

At the end of the interview the patient seemed rather confused and uncertain about her instructions. She made several hesitating attempts to pick up the sheets of paper on which she had again been "nervously scribbling," suddenly made a last plea for reassurance, and then left quickly when this had been given.

Examination of her drawings after her departure disclosed various figures and lines repeated over and over in varying sizes. There were long and short lines-vertical, horizontal, and oblique. Some were traced lightly, others heavily shaded. Also, there were spirals, cylinders, triangles, squares, and rectangles of various proportions, some drawn lightly and others heavily. While she had been making these drawings, no sequences or relationships had been observed. One peculiarity, however, was the fact that each figure had been drawn as an isolated unit with no attempt to run one into the next.

A subsequent examination of two different books of her lecture notes showed that her "nervous scribbling" had been a sudden development of the preceding weeks. In these notebooks page

after page was found with the same limited types of figures and lines, drawn over and over in a totally disconnected, confused fashion (see Figure 1).

The next day the patient appeared promptly and remarked at once that the suggestions given her the day before seemed to have been effective, since she had not thought about herself at all after leaving the office, and she had even lost conscious interest in her problem so completely that she had returned only because she felt herself to be under an obligation to keep her appointment despite her lack of interest in its purpose. She also explained that she had read a recent novel and was prepared to relate the entire story in detail, remarking facetiously that it would be a cheap way for the examiner to become posted on the latest information of the literary world.

She was told promptly that she could start the story at once; and as she did so, her chair was carefully placed sideways to the desk so that her right arm rested on the desk in close proximity to paper and pencils, while the examiner took a position diagonally opposite. Thus, although she faced away from the paper, it remained well within the range of her peripheral vision.

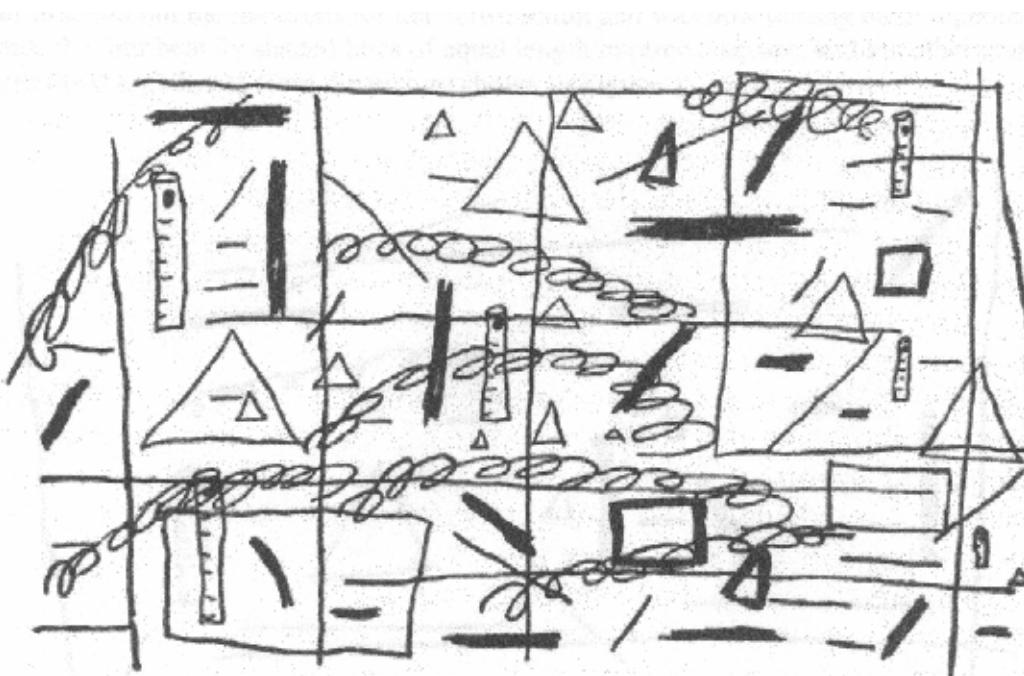


Figure 1

Shortly after she had begun to tell the story of the book, she abstractedly picked up the pencil and in a laborious, strained fashion began to repeat on the upper half of the sheet of paper the drawings of the previous day, now and then glancing down at her productions for a moment or so in an absentminded fashion. As before, no particular sequence of the drawings was noted, but a significant duplication of some of the elements may be observed in Figure 2.

When she had completed these drawings, she became rather confused in her speech, and was observed to relax and tighten her grip on the pencil as if she wanted to lay it down but found

herself unable to do so. She was encouraged here by an insistent, low-toned suggestion, "Go ahead, keep on, it's all right, go ahead, go ahead, keep on."

She remarked immediately, "Oh yes, I know where I am, I just lost the thread of the story for a moment," and continued the narrative.

At the same time her hand was seen to take a fresh grip on the pencil and to shove the pad forward so as to make the lower half of the paper available, and she drew a line as if to divide the paper in halves. Then in a slow and deliberate fashion, with a marked increase in the tension of her right hand and some speeding of her speech, she began to construct a picture by arranging the elements which she had previously drawn so often and so repetitively in an incoherent manner into an orderly, systematic whole. It was as if she had first laid out the materials for her construction and was now putting them together. Thus, the four heavily shaded lines of equal length became a square, and the other units were fitted together to form the picture shown in Figure 3.

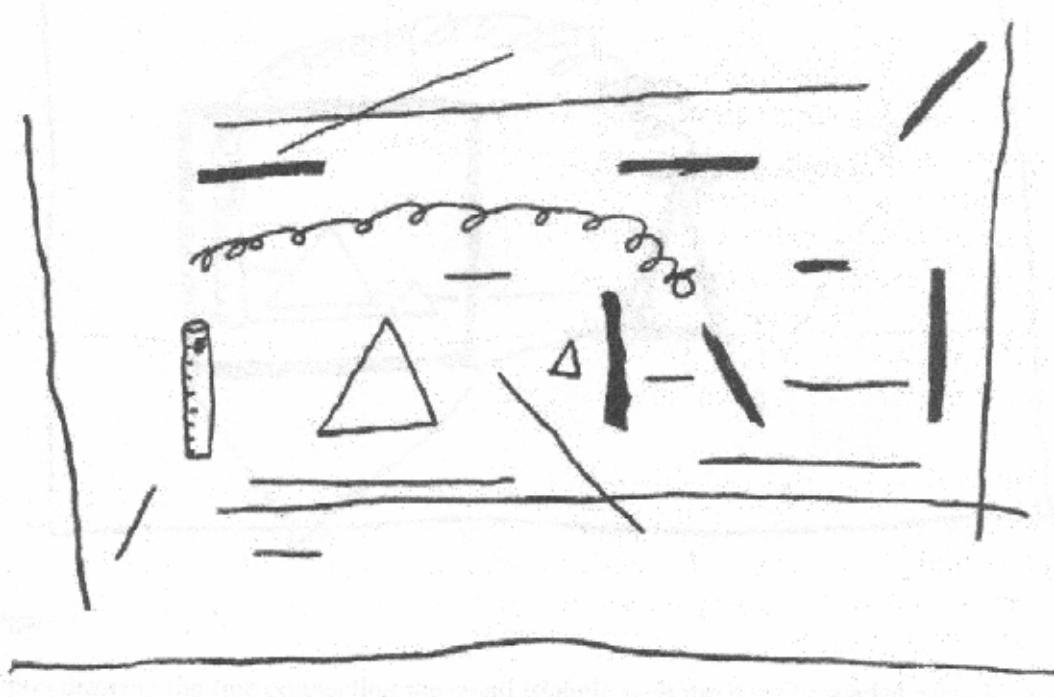


Figure 2

In completing the square, however, the patient showed marked uncertainty about its lower-left-hand corner, and kept glancing down at it abstractedly for a moment or so at a time. Finally she distorted the corner slightly, leaving it open. Also, in making the lower-right-hand corner she pressed down unduly, breaking the pencil point.

In making the diagonal line extending downward from the lower-left-hand corner of the square, her hand moved with sudden force and speed. Then, after a considerable pause, her hand moved more and more slowly on the up stroke to the lower-right-hand corner of the square, the line wavering; then finally her hand moved quickly and forcibly over to the shaded triangle.

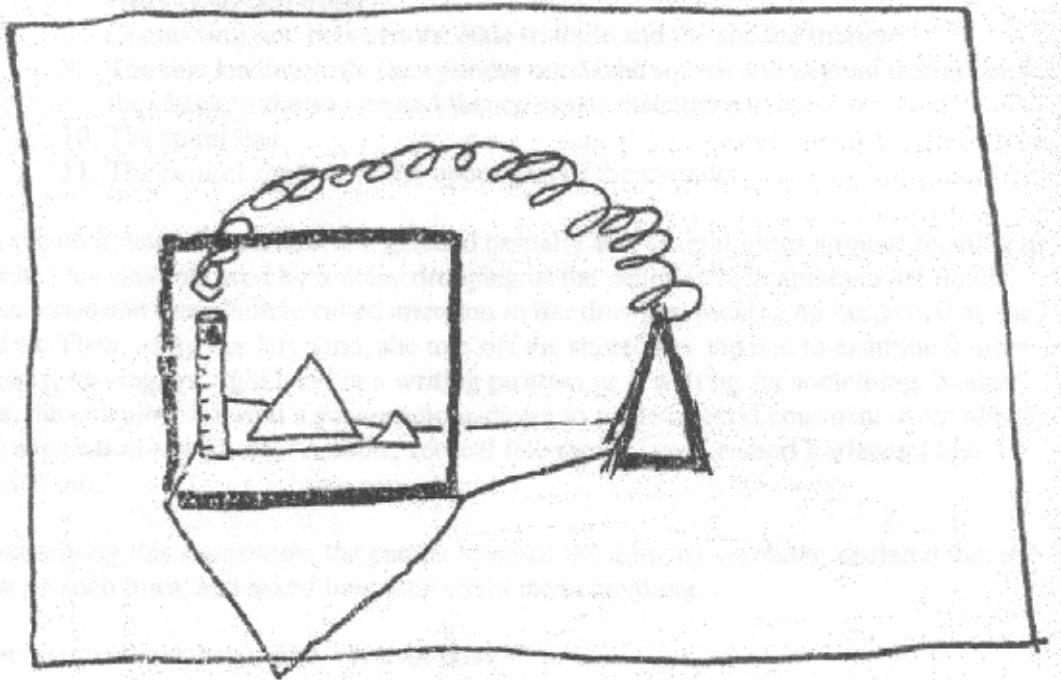


Figure 3

Upon drawing the line connecting the small triangle with the heavily shaded triangle, her hand stopped short as it approached the side of the square and placed a period. Following this her hand lifted and moved over the edge as if surmounting a barrier, after which it completed the line in a steady, firm manner.

The spiral line connecting the cylinder and the shaded triangle began freely and easily, but as it approached the triangle the hand movements became increasingly labored and slow.

Repeatedly during the drawing process the patient's hand would return to the larger of the two light triangles, as if to touch it up a bit and to make it more perfect in outline, while the shaded triangle was drawn roughly.

During her drawing it was possible to record the order in which the various elements were added to the total picture.

1. Square
2. Cylinder
3. Large light triangle
4. Small triangle
5. Connecting lines between cylinder and the large triangle, the large triangle and the little triangle, and the cylinder and the little triangle
6. Enclosing rectangle

7. Heavily shaded triangle
- S. Connecting line between the little triangle and the shaded triangle
9. The line leading from the cylinder out of the square and beyond the rectangle, then back to the square and thence to the shaded triangle
10. The spiral line
11. The central shading of the upper part of the cylinder

As she completed the picture, she glanced casually at it several times without seeming to see it. This was followed by a noisy dropping of the pencil, which attracted her notice. Thereupon she immediately called attention to her drawing, picking up her pencil as she did so. Then, using her left hand, she tore off the sheet from the pad to examine it more closely, leaving her right hand in a writing position as if waiting for something. Noting this, the examiner inferred a subconscious desire to make a secret comment. Accordingly the suggestion was given, "A short, vertical line means 'yes,' a short horizontal line means 'no.'

Misapplying this suggestion, the patient scanned the drawing carefully, declared that she saw no such lines, and asked how they could mean anything.

The question was then asked, "Is it all there?"

She replied, "I suppose so, if there is anything there at all," while her hand, without her awareness, made a "yes" sign.

"Everything?"

"Well, I suppose if anything is there, everything is," and again her hand made the "yes" sign without her awareness.

She scanned the picture carefully for some moments and then remarked, "Well, it's just silly nonsense, meaningless. Do you mean to say you can make any sense out of that scratching-to use your own words, that it tells everything?"

Apparently in answer to her own question her hand made another "yes" sign and then dropped the pencil as if the task were now complete. Without waiting for a reply she continued, "It's funny! Even though I know that picture is silly, I know it means something because right now I've got an urge to give you something and, even though I know it's silly, I'm going to give it to you anyway because it's connected with that." Pointing to the shaded triangle, she took from her pocket a packet of matches advertising a local hotel and dropped it on the desk.

Then she immediately consulted her watch, declaring that she had to leave, and seemed to be experiencing a mild panic. However, after a little urging, she consented to answer a few questions about what the picture might mean. She looked the drawing over and offered the following comments, which she insisted she could not elaborate: "Two pictures in frames, a large one," she explained, pointing to the rectangle, "and a small one," pointing to the square, "with the corner broken." Pointing to the figures in the square she said, "These are all connected, and the connection between the little one," pointing to the small triangle, "and that," pointing to

the shaded triangle, "is broken. And that," she added, indicating the cylinder, "is a cigarette with smoke. We all smoke in our family; maybe those are father's matches I gave you. But the whole thing makes no sense at all. Only a psychiatrist could see anything in it," and with that she rushed from the office only to return at once to ask, "When can I see you again?" Upon being told, "Just as soon as you want to know a bit more, call me," she rushed away. No comments were made upon the unitary drawings at the top of the page, and she seemed not to notice them.

About three weeks later she appeared unexpectedly "to report progress." She stated that evidently her drawings must have meant something since she had experienced a marked change in her emotions. She no longer felt worried or depressed, though at times she felt an "intense dread of something," as if she were "going to stumble onto something," and, "I have a feeling that I'm going to find out something dreadful." With much hesitation she added, "What I really mean is that I have a feeling that I am getting ready to know something I already know, but don't know I know it. I know that sounds awfully silly, but it's the only way I can explain, and I am really afraid to know what it's all about. And it's connected with these matches," handing the examiner a second packet similar to the first. "We (the family) had dinner at the hotel last night, and that's where I got them. I saw another packet on the library table last night, but these are the ones I got."

All the other remarks were casual in character, nothing further was learned, and she left rather hurriedly, apparently somewhat uneasy and confused in mind.

Two weeks later she again appeared unexpectedly, declaring as before that she had come "to report progress," and explaining that in the interim she had experienced the development of an absolute certainty that the drawing was meaningful, that "there is a complete story in that picture that anybody can read, and I'm getting terribly curious to know what it is." Here she demanded to see the drawing, and after scrutinizing it closely remarked, "Really, it still looks like a mess of nothing. I just know it's the whole story, too, but why I say that I don't know. But I am sure that my subconscious knows a lot that it won't tell me. I have a feeling that it is just waiting for my conscious mind to prepare itself for a shock, and it's just making me darned curious so I won't mind the shock." When asked when she would know, she replied, "Oh, I suppose not long," and then became emotionally disturbed and insisted on changing the topic of conversation.

A week later she came in to state that she had an engagement to dine with her girlhood friend at the hotel that evening, and that this was causing her much emotional distress. She explained: "I hate to see our friendship broken up just by drifting apart the way we have. And I don't like my attitude toward Jane. You see, Jane's a year younger than me, and she's got a boyfriend and she's pretty much in love with him. She says she thinks I know him, but she won't tell me his name or anything about him, and I don't like my attitude toward her, because I'm so jealous of her that I just hate her intensely; I'd like to pull her hair out. I just hate her because I feel as if she had taken my boyfriend away from me, but that's silly, because I haven't got a boyfriend. I don't want to keep my appointment with her because I know I'm going to quarrel with her, and there really isn't anything to quarrel about, but I know I'll just say one nasty thing after another, and I don't want to, but it's going to happen and I can't avoid it. And another thing, after I quarrel with her I'm going to have a fight with my father. I've just been working up to this for a week. I've only had two fights with my father, and they were both about my college plans, but I don't know what

this fight's going to be about. Probably some little thing like his carelessness in smoking and dropping ashes on the rug at home, probably any little old excuse. I just hope father isn't in when I get home. Can't you say something to me so this all won't happen? But I suppose as long as it's in me it might as well come out and get it over with. When I made the appointment with Jane, I had a vague idea of what was going to happen, and as soon as she accepted I could see, just as plain as could be, what I've just told you, so I hung up the receiver before I had a chance to cancel my invitation."

More remarks were made of a similar character and significance, but all attempts to discuss her drawings or to secure an elucidation of her premonitions failed, since she declared that the only things of interest to her at the moment were the "impending battles."

The next day she dropped in the office to report hurriedly, "I'm in a rush. All I've got time for is to tell you it all happened just as I predicted. Jane and I started out visiting nicely, and then I got to wise-cracking and began hurting her feelings. I didn't notice that at first, and when I did, I just didn't give a damn and I went to town on her in the crudest, nastiest, most subtle fashion I could. I didn't say anything particularly, but it was the way I said it and mocked her. When she cried I felt a lot better, and although I was ashamed of myself I didn't feel any sympathy for her. I wound up by telling her that we could agree to disagree and she could go her way and I'd go my way. Then I went home and Father was sitting there reading and I was itching for him to say something, just anything. I was awfully amused at myself, but I figured there wasn't anything I could do about it, so I began smoking and pacing the floor. Finally he told me to sit down and be quiet, and that just set me off. I just yelled at him to shut up, that I could *run around* if I wanted to, and he couldn't say anything to me. It was too late to go out, and if I wanted to *run around* I had just as much right as he had. I told him he might think he was smart, but I was a lot smarter, that I wasn't born yesterday, that I knew what it was all about, and a lot of silly, incoherent, tempery things that I really didn't mean and that didn't make sense. Finally he got disgusted and told me if I couldn't talk sense to shut up and go to bed and sleep it off. So I did. And the funny thing is that when I woke up this morning, I thought of those drawings I did for you, and I tried to think about them, but all I could think was first the word 'today' and then the word 'tomorrow,' and finally I just kept thinking 'tomorrow.' Does that mean anything to you? It doesn't to me," and with this remark she took her departure.

The next afternoon she appeared and declared, "After I left you yesterday, I had a funny feeling I had made an appointment with you for today, but I really knew I hadn't. Then this morning the first thing I thought of was that drawing, and I knew that I could understand it now, and I've been thinking about it all day. I remember the whole picture; I can see it in my mind plainly, but it's still meaningless, doesn't mean a thing. Let me look at it."

She was handed the picture, which she scrutinized in a most painstaking fashion, with an expression of intense curiosity on her face, finally sighing and putting it down to remark, "Well, I guess I'm mistaken. It doesn't mean a thing-just a silly picture after all." Then suddenly brightening, "But if you will say just a word to start me off, I know I'll understand it."

No heed was given this indirect request, and she repeatedly examined the picture only to lay it aside each time in an intensely puzzled fashion.

Finally, she repeated her request for a "starting word" and was countered with the question, "What word?" To this she replied, "Oh, any word. You know what the picture means, so just say any word that will give me a start. I am really just dying to know what it's all about even though I am a little bit afraid, maybe a lot. But say something, anything."

Her insistent request was acceded to by the remark, "Sometime ago you told me you were terribly interested in and fascinated by symbolism," and as this remark was made the packet of hotel matches was carefully dropped on the desk.

Immediately she seized the drawing and looked at it momentarily, at the same time grabbing the packet of matches and throwing it violently on the floor. She then burst into a torrent of vituperation, addressed apparently to nobody, intermingled with expressions of sympathy for her mother and explanatory details, of which the following constitutes only a fairly adequate summary:

The damned nasty filthy little cheater. And she calls herself my friend. She's having an affair with Father. Damn him. Poor Mother. She visits Mother, damn her, and Father acts like a saint around the house, damn him. They go to the hotel, the same hotel Father took us to [for dinner]. I hated her because she took my father away from me-and Mother.

That's why I always stole his cigarettes. Even when I had some, I'd sneak into the hall and get some out of his coat pocket. Sometimes I'd take the whole package, sometimes only one or two. If she thinks she's going to break up my home, she's got another thought coming, plenty too. The first time she told me about her boyfriend-her boyfriend, huh-she lit her cigarette with those matches. I knew then, but I couldn't believe it. And I used to take Father's matches away from him, and I'd get so goddamn mad when he'd tell me to use my own. I didn't want Mother to see those matches, and it didn't make sense then.

This was followed by much profanity and repetition of the above remarks which seemed to exhaust her rage, following which she sobbed bitterly.

Composing herself, she apologized for her profanity and rage and then remarked quietly, "I suppose I better explain all this to you. When you said symbolism, I suddenly remembered that Freud said cylinders symbolized men and triangles, women, and then I recalled that cigarettes were cylinders and that they could symbolize a penis. Then the whole meaning of the picture just burst into my mind all at once, and I guess I just couldn't take it, and that's why I acted like I did. Now I can explain the picture to you."

Pointing to the various elements of the picture, she explained rapidly. "This cigarette is Father, and that big triangle is Mother-she's short and fat and blonde and the little triangle is me. I'm blonde too. I'm really taller than Mother, but I just feel little to her. You see, those lines all connect us in a family group and the square is the family frame. And that line from Father breaks through the family frame and goes down below the social frame-that's the big square-and then it tries to go back to the family and can't, and so it just goes over to Jane. You see, she is a tall, slender brunette. And that smoke from Father's penis curls around Jane. And that line between me and Jane is broken where it comes to the family frame. And I've been drawing and drawing these pictures all the time like that (pointing to the unitary drawings at the top of the page), but this is the first time I ever put them together. And see where I blackened Father's face. It should

be! And when I gave you those matches, I told you they were connected with Jane, even though I didn't know that was Jane then."

For some minutes the patient sat quietly and thoughtfully, now and then glancing at the drawing. Finally she remarked, "I know the interpretation of this picture is true, but only because I feel it is true. I have been thinking everything over and there isn't a solitary fact that I know, on which I can rely, that could possibly substantiate what I've said. Jane and I have drifted apart, but that doesn't make her Father's mistress. Jane does call at the house but always on evenings when Father is out, and while she doesn't stay more than three-quarters of an hour, that doesn't mean that that's a blind. And Mother can't hide anything and her nature is such that she would know about things before they happen, and I know she has no inkling of this. As for the matches, anybody could have hotel matches, and my stealing Father's cigarettes only proves there's something wrong with me. Well, now that I've discovered this, I'm going to go through with it and clear it up so that I'll have better proof than just my subconscious drawings."

What the proof was to be the patient refused to state, and the rest of the interview was spent by the patient in outlining a calm, dispassionate, philosophical view and acceptance of the entire situation.

Two days later she came to the office accompanied by a young woman. As they entered the office the patient said, "This is Jane. I bullied and browbeat her into coming here without giving her any idea of what or why, and her own sense of guilt toward me kept her from refusing. Now I'm going to have my say and then I'm going to leave her with you so she can talk to you and get a little sense put into her head."

Then, turning to Jane, "Just about two months ago you started something which you didn't want me to know about. You thought you were getting by with it, but you weren't. You told me your boyfriend was about four years older than you, and you told me he wanted an affair with you but that you wouldn't consent. You were just a sweet young girl talking things over with your dearest pal. And all the time you knew, and all the time I was putting two and two together, and finally I went to a psychiatrist and the other day I got the answer, so now I know your whole sordid, nasty story. Here's a cigarette, now light it with *these* matches—they're hotel matches. Now you know just what I'm talking about."

With that she rushed out of the office, and as she did so, Jane turned and asked, "Does Ann really know about her father and me?"

Then, without any questioning of any sort, Jane responded to the difficult situation in which she found herself by relating the story of her intrigue with the patient's father, confirming fully every detail given by the patient and adding the information that both she and her lover had been most secretive and had been most confident that they could not even be suspected. She also added that on the occasion of Ann's first weekend home from college after the beginning of the affair, she had felt that Ann was most disagreeable and irritable for no good reason, and Ann's father had made the same comment during one of their meetings. She attributed Ann's knowledge of the affair entirely to "intuition."

Following these disclosures Ann was recalled to the office, and as she entered, she eyed Jane closely, then remarked, "Well, I did have a faint hope that it wasn't so, but it is, isn't it?" Jane nodded affirmatively, to which Ann replied philosophically, "Well, what Father does is his own business, and what you do is yours, but you're not visiting at our home anymore, and you and father can pick another hotel since the family is in the habit of eating at that hotel frequently. I'll just explain your failure to visit at home to Mother by saying we quarreled, and as for you and me, we're acquaintances, and you can tell Father that heaven help both of you if Mother ever finds out. And that's that! You can go back to town by one bus and I'll take another, and you can beat it now because I want to talk to the doctor."

After Jane's immediate departure the gist of the patient's remarks was that she intended to accept the whole matter in a dispassionate, philosophical manner, and that she was still tremendously puzzled as to how she had "stumbled onto it," since she felt convinced that "it must have been just plain intuition that worked out right. When I first started drawing those little pictures, it made me feel terribly jittery, but I couldn't stop. I was just obsessed by them, but they had no meaning until last Thursday. Now when I look back at it all, the whole thing just seems screwy because I must have known from the beginning, and yet I really didn't know a thing until the other day here. But hereafter I'm not going to let any subconscious knowledge upset me as frightfully as that did."

The patient was seen casually thereafter on a number of occasions, and satisfactory evidence was obtained of a continuing good adjustment. A few years later she married very happily. One additional item of information obtained from the patient was that on a number of occasions before her upset she had suspected her father of intrigues with various women but had always dismissed her suspicions as unworthy. These suspicions were confirmed unexpectedly by Jane, however, while discussing with the examiner her intrigue with the patient's father. She volunteered the information that over a period of eight years the father had had a series of affairs, one of which had been broken off only at her insistence.

Also, after the passage of several months the patient's notebooks were again examined. When this privilege was requested, she remarked, "Oh, I know! I forgot to tell you. I lost that habit just as soon as I found things out I haven't done a bit of scribbling since then." Inspection of the notebooks verified her statement.

Subsequently Jane too was seen casually and volunteered the information that the intrigue was continuing, but that she had complied with Ann's injunctions.

## DISCUSSION

### I. The Significance of the Illness

It is hardly possible to overestimate the theoretical significance and interest of this case. Only rarely does an opportunity arise to study a severe neurotic storm-in some ways nearly psychotic-under such well-controlled conditions.

A young woman deeply and apparently peacefully devoted both to her father and to her mother suddenly is confronted with the threat of a deep hurt to her mother through her father and her own best friend, and with the acutely painful picture of her father's emotional desertion of the family. This of course is adequate grounds for sorrow and anger. But it was more significant still that she was confronted by these jolting facts, not in her conscious perceptions, but only in her unconscious; and that furthermore her reaction to this unconscious knowledge was not one of simple sorrow and anger, but a far more complex constellation of neurotic and affective symptoms. All of this becomes clear directly from the data of the case and without any intricate or debatable analytic speculations and interpretations.

Here, then, is a test case. Can psychic injuries of which we are not consciously aware be at the heart of major psychopathological states? And how does the reaction of the patient illuminate this problem?

On the weekend of her return home when she first sensed unconsciously the intimacy between her friend and her father, her immediate response was one of troubled and unmotivated irritability—an irritability which never found any focus, but which was displaced incessantly from one trivial object to another. Thereafter she lapsed into a state of obsessional depression, which seemed to her to be without content or meaning, although it was accompanied by a withdrawal of interest from all of her previous activities and from all previous object relationships. As this depressive mood gathered, her irritability persisted, undiminished and still without adequate conscious object. For the first time, however, it began to focus its expression in two symptomatic compulsive acts whose symbolic meaning later became unmistakable. The first of these was a minutely circumscribed kleptomania—i.e., the specific compulsion to steal cigarettes and matches from her father's pockets, obviously with an angry and punitive preconscious purpose but which was seen in the automatic drawings to have a much deeper unconscious castrative goal as well. The second was an equally circumscribed, almost encapsulated obsessional drive toward the constant repetition of scribbled drawings of cylinders, triangles, looping spirals, and straight lines slanting in all directions. (cf Figure 1.)

It is of interest to note that her illness began with episodic emotional flurries, which quickly were followed by an affect which became fixed and obsessional, and that this in turn was supplemented by a group of obsessional acts. The theoretical significance of this sequence of events is a matter into which we cannot go at this point, but the sequence should be borne in mind.

The patient's involuntary and, to her, mysterious irritability deserves another word. It is an exact replica of a type of frantic, shifting, and apparently unmotivated irritability which one sees in children when they are stirred into overwhelming states of unconscious jealousy toward parents and siblings. In this patient it is possible to observe how the irritability was precipitated when the patient's unconscious was confronted with the love relationship between her father and her friend. Furthermore it is clear that the irritability reflects her conflict between various roles, as for instance her identification with her mother in the family group, her fantasy of herself in the role of her father's mistress, her jealousy of this mistress, and the resulting conflicts which manifested themselves throughout her upset period between the vengeful, guilty, and protective impulses toward everyone involved in the situation.

It is clear that the unconscious impulses which were driving her strove in many ways for adequate expression and resolution: first in the vengeful gestures (stealing of matches and cigarettes), then in the automatic incoherent drawings or scribblings (a so-called habit which is later seen to be infused with specific and translatable meanings), and finally in the increasing and obsessive need to find out what it was all about, as manifested in her blind search into psychiatric and analytical literature, her fascination with and skepticism about symbolism, and in the appeal for help still veiled slightly behind her "curiosity about automatic writing."

Surely both the driving and the directing power of unconscious mentation could not be more beautifully illustrated in any laboratory test than it is here. A further example is in the unwitting double meaning in the naively chosen phrase "run around," which the patient used repeatedly in her blind, angry outburst against her father, without realizing consciously its obvious reference to his sexual habits.

And finally the symbolic representation of complex human relationships by simple, childlike scribbled drawings, which is the most dramatic feature of the story, is so clear as to need no further comment.

## **II. Technique**

The technical challenges with which the experience confronts us are several. In the first place it must be admitted quite simply that the most skillful use of orthodox psychoanalytic technique could not possibly have uncovered the repressed awareness of the father's liaison in a mere handful of sessions. Speed in achieving a result is of course not a sole criterion of excellence. It may well be that with such rapid therapy certain vital reconstructive experiences cannot be brought to a patient, whereas they, on the other hand, may be an essential part of the more orthodox analytic approach. But there is nothing in this observation which would seem to make the two methods mutually exclusive. In some form they might be supplementary or complementary to one another; and for at least a few of those many patients to whom analysis is not applicable, such an approach as this, if only because of its speed and directness, might be useful.

Furthermore, it must be emphasized that automatic drawing as a method of communication has a close relationship to the psychoanalytic method of free association. Here the patient's undirected drawings were certainly a nonverbal form of free association. That the translation of such drawings into understandable ideas presents grave difficulties must be admitted; but these difficulties are not always greater than those which confront analysts when they deal with the symbolic material of dreams. On a two-dimensional plane these drawings are equivalent to the dramatic symbolic representation of instinctual conflicts which Homburger (1937) has described and analyzed in children's three-dimensional play with building blocks.

Furthermore, as one studies this material it is impressive to see how ready the unconscious seemed to be to communicate with the examiner by means of this accessory sign language of drawing, while at the same time the consciously organized part of the personality was busy recounting other matters. It suggests that by using either this or some other method of widening

the conscious gap between the conscious and unconscious parts of the psyche, it might be possible to secure communications from the unconscious more simply than can be done when both parts of the personality are using the single vehicle of speech. It suggests that when only one form of communication is used, the struggle between the expressive and repressive forces may be intensified.

The point we have in mind here is quite simple. Under circumstances of usual analytical procedure the patient expresses everything-both conscious and unconscious, instinctual drives and anxieties, fears and guilt-often all at the same moment and in the same system of gestures and words. That under such circumstances a patient's speech and communications may be difficult to disentangle is not strange. It, however, by some method one could allow the various aspects of the psyche to express themselves simultaneously with different simple and direct methods of communication, it would be conceivable at least that each part could express itself more clearly and with less internal confusion and resistance. In this instance it seems to have worked that way; and the shame, guilt, anxiety, and rage which prevented the patient from putting into words her unconscious knowledge left her free to express it all in her automatic scribbled drawing; furthermore this throws light on the essential mechanism of literature and art, a discussion of which will have to be reserved for another time.

It must be borne in mind, however, that the repressive forces rendered the drawings wholly chaotic until the influence of the psychiatrist was exerted on this patient in a clear-cut and definite manner, in order to assist her in the expression of her problem. In the first place, looking back it becomes obvious that the patient came seeking a substitute father who would give her permission to know the facts about her real father-a "permissive agent" whose function would be to lessen her guilt and her anxiety and to give her the right to express the rage and the hurt that she felt.

Thus we see that the first movement toward recovery came as she simultaneously talked and scribbled in the first interview and apparently without any insight. The observer on that occasion gave her a certain direct, quiet, but impressive suggestion: that she was to allow her unconscious to deal with her problem, instead of her conscious mind. This is an important divergence from psychoanalytic technique with its deliberate drive to force everything into consciousness, because at the same time that the psychiatrist gave the patient permission to face the facts unconsciously, he gave her conscious mind the right to be free from its obsessive preoccupation with the problem. The patient experienced an immediate temporary relief. She felt so "well" the next day that she even thought of not retuning for her next appointment. With this ground under her feet, however, at the next session she went deeper into her problem and emerged with her first moment of conscious panic-a panic that was not at this point accompanied by any insight. Her next emotional change evolved rapidly out of this experience and soon manifested itself in her ability to express her rage, chagrin, and resentment openly in her compulsive outburst against her friend and her father, instead of in symbolic acts alone.

In all of this the "permissive agent," by his active encouragement and direct suggestions, served to lift the weight of guilt, anxiety, and ambivalence from the patient's shoulders. As a new and kindly father he diverted some of these obstructing feelings from their older goals, thus allowing the eruption of the full awareness of the affair. This important function of the therapist-to

dislodge old and rigid superego patterns-is one which unquestionably was executed by this mild suggestion at the first interview between the therapist and the patient.

Naturally this could not occur without anxiety, but the appearance of this anxiety, replacing the depression and the compulsions which had existed for so long, marked the upturn in the patient's illness.

### **III. Conclusion**

We are far from drawing any conclusions from this single experience. Such observations must be amplified and repeated many times before it is decided that as a consequence any changes in analytic technique are indicated.

It is just to say, however, that without any effort to open up all the buried material of the patient's highly charged oedipal relationships, a direct link was established between conscious and unconscious systems of thought and feeling which surrounded the parental figures, and this by a very simple technique. Furthermore, as a direct consequence there was almost immediate relief from seriously disturbing neurotic and emotional symptoms.

It is unfortunate that although we have a clear picture of the patient's neurosis, we have no analytic insight into the character and personality out of which this neurosis developed. This is important because it is conceivable that such a method as this might be applicable for one type of character organization and not for another, even when the two had essentially similar superimposed neuroses. Such studies as these, therefore, should be carried forward in conjunction with psychoanalysis.

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# **Translation of the Cryptic Automatic Writing of One Hypnotic Subject By Another in a Trancelike Dissociated State**

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During the training of a subject for a particular experiment in hypnosis a unique observation was made upon the ability of one person in a spontaneous trance accurately to decipher and to translate the mysterious and cryptic automatic writing of another. In their conscious states neither individual could understand the script. In trancelike states each one quite independently reached identical interpretations of it. Cryptic automatic writing is found to suffer from processes of distortion identical with those seen in dreams; and the translation of such writing, to involve the same principles as those involved in dream analysis.

In chronological sequence in the protocols detailed below there is portrayed both the general situation and the series of events leading to these observations:

- (1) The subject, as an incident in his training and while in a deep trance, was told by an assistant in the absence of the investigator to forget all the vowels but not the fact of their existence.
- (2) In another trance a week later he was given additional suggestions to the effect that he would replace the seventh (*g*) eighth (*h*), and ninth (*i*) letters of the alphabet with their respective numerals and that henceforth his name would be "Jack Young."
- (3) He was then asked to write his name. In doing this he omitted the vowels and substituted the numeral 10 for the letter *J*, declaring emphatically as he completed this task that something was wrong.

Assuming in the interpretation of hypnotic productions, as in the interpretation of dreams, that every trivial detail has meaning, the assistant sought to secure from the subject an explanation both of his use of the numeral *10* and of his comment that something was wrong. The subject wrote the letters *N* and *F* and the numerals 7, 7, 8, and 9 automatically in his effort to explain these phenomena, apparently offering them as an adequate explanation of everything. Dissatisfied, the assistant demanded a more understandable written explanation. This resulted in still more abbreviated and cryptic automatic writing; further requests produced merely a repetition of that writing, despite the assistant's efforts to compel some alteration of the written characters by active physical interference.

External circumstances then terminated the interview at this point, but not before the subject had demonstrated his complete lack of any conscious understanding of what his written "explanation" meant or of what the "mistake" had been, and whether it was the substitution of a *I* for the *J* in his written name.

After the subject left, the investigator came into the laboratory, and while he and his assistant were puzzling over the cryptic writing, a second subject, Alice, entered the laboratory and showed an immediate interest in the problem. This subject has the rare capacity to develop spontaneous hypnotic trances during which she functions adequately in whatever situation she finds herself. Upon awakening from them she has no awareness of her trance activities. Because of her interest in the problem, she was given an outline of the essential facts. The writing was shown to her by the assistant, who then departed, leaving Alice to puzzle over the writing with the investigator.

Thereupon Alice developed a series of spontaneous trance states interspersed with ordinary waking states. In the trance states she interpreted the writing item by item and explained it step by step to the investigator, who maintained essentially a passive, receptive role. This passive role was forced upon the investigator by the brevity of the spontaneous trances, the difficulty of trying to carry on a conversation with her at all, and the necessity constantly to meet her at two different levels of awareness in a single situation. Alice's spontaneous trances tended to be so brief that she would have time to offer only an explanatory remark or two and would then awaken with no awareness of what she had just said. In the waking state she would continue her puzzled wonderment over the writing which had just been interrupted by the spontaneous trance, or she would become interested in some totally unrelated topic and discuss that until some remark of the investigator disclosed to her his own unclear state of mind regarding the last bit of explanation she had given. There would follow another spontaneous trance in which, briefly and concisely, Alice would make another remark to clarify the investigator's mind. As a consequence it was necessary for Alice to develop a large number of spontaneous trances and to repeat her explanations many times before she could feel satisfied with the investigator's comprehension of what had been said. In addition Alice's explanations were often as cryptic to the investigator as the writing itself—as, for example, her use of the word *sign* to explain the correctness of the letter *H* (cf. the protocol below).

In the intervals between the spontaneous trances investigation showed that Alice had a complete and persistent amnesia for all of her trance disclosures, even after the entire interpretation of the writing had been secured; furthermore, when her own interpretation of the writing was presented to her, she regarded it purely as a product of the investigator's own reasoning. However, when questioned about it in an induced trance state, she not only recognized the explanation as her own but meticulously corrected the slightest change in wording introduced by the investigator.

Why Alice resorted to this devious and uncertain method of communication instead of permitting herself to develop flashes of conscious insight is a matter for speculation not

wholly explained by her statement that the writing represented her own unconscious way of thinking and writing.

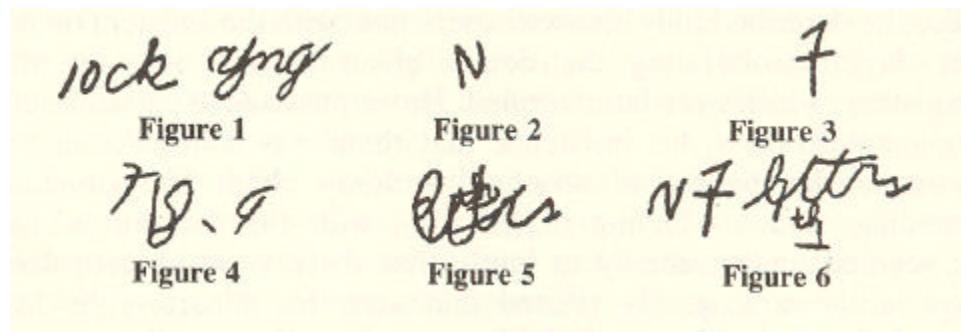
The following day the first subject, T. L., came to the office unexpectedly to report what he termed "an amusing hypnagogic experience." Unaware that the assistant had told the investigator of the original situation, and unaware also of the investigator's subsequent experience with Alice, he described fully his own experiences with the assistant on the previous day, corroborating the details given by the assistant and including others which were later verified. He emphasized in particular his own argumentativeness, his insistence that there was a mistake in the written name, his feeling of absolute certainty about his conscious understanding, and his feeling of irritation with the assistant whose manner seemed unwarrantedly to imply that there were unrecognized meanings in the writing. He related that after his departure he had forgotten about the incident until, falling asleep late that evening, he had a "hypnagogic experience" in which he "saw" the episode exactly as it had occurred with a new interpretation of it all. He expressed much amusement over his earlier belligerency and defensiveness and also about his new realization of "how intensely you can believe something that is totally wrong, when right in your subconscious you know the truth." He went on to explain that along with his original "conscious explanation" he now "saw" the "true subconscious explanation," which was not at all similar to his "conscious explanation." Asked to restate his original "conscious explanation," he claimed that because it was "so wrong" he could no longer remember more than a vague outline of it, but that now he was ready to give the "correct explanation of the whole thing."

In response to the investigator's manifest interest he proceeded to give his explanation, but not with the confidence his manner had led the investigator to expect. It became apparent at once that the subject's conscious grasp of the problem was limited and that he only thought he understood it. Actually his method was to offer sudden, brief, dogmatic statements as if each were the complete explanation, only to discover spontaneously that his explanation was inadequate. Then there would follow another sudden flash of conscious insight and another dogmatic statement.

After a number of such steps the subject took the attitude of one solving a puzzle and began to search for the explanation of his various dogmatic statements and for the significance of the writing. As he studied the writing and tried to fit his various statements to it, additional flashes of insight developed, sometimes relevant to the immediate question he was trying to solve and sometimes pertinent to another item not yet touched upon. Thus, bit by bit in an unsystematic fashion, a complete explanation was developed which was in full accord with the one given by Alice. In this episode the investigator's role was again a passive, receptive one.

Of marked interest is the fact that neither subject volunteered any interpretation of the first "explanation" written as four digits. Both subjects ignored that particular writing completely until it was called to their attention. Alice remarked simply that everything was included in the writing she had explained, while T. L. commented briefly, "That's [the digits] not so good; the writing's better."





## **PROTOCOL I**

### **First Week**

1. Subject T. L. was told while in a hypnotic trance to forget the vowels of the alphabet but not the fact of their existence.

### **Second Week**

2. Subject T. L. was again hypnotized and told this time to replace the seventh, eighth, and ninth letters of the alphabet (*g*, *h*, and *i*) with their respective numerals.
3. T. L. was then told that his name was "Jack Young" and was asked to write it.
4. T. L. wrote his name "10 ck Yng" (cf. Figure 1).
5. Upon inspection of his writing, T. L. declared it to be incorrect, that the *J* was a mistake; he became disputatious when the assistant suggested that it might be correct.
6. The assistant asked, "Is what you wrote correct?"
7. T. L. wrote automatically the character *N*, which was interpreted by the assistant as a "No," but T. L. did not confirm this
8. (cf Figure 2).
9. The assistant asked if the writing was apparently incorrect.
10. T. L. wrote automatically the character *F*, which the assistant interpreted as a "Yes," but this again was neither confirmed nor corrected (cf. Figure 3).
11. The assistant then asked why the writing was only apparently incorrect.

12. T. L. wrote automatically the construction, "7 7 8 9," very faintly and somewhat illegibly (cf. Figure 4).
13. The assistant asked that the explanation be rewritten plainly and clearly and in a fashion understandable to both of them.
14. T. L. then added to the *N* and the *F* already written a peculiar group of letters (cf. Figure 5).
15. The assistant, after scrutiny of this writing, asked T. L. to rewrite on another sheet of paper his explanation in amore clearly understandable and readable fashion.
16. T. L. complied with this request by producing a second graphic construction, essentially a repetition of the previous one, ignoring and resisting as he did so the assistant's attempts to compel an alteration of the writing by forcibly moving the paper while T. L. was engaged in his task (cf. Figure 6).
17. No further verbal explanation of the writing was obtained at this time except an argumentative repetition of his previous declaration that the written name contained a mistake—namely, the use of *10* for *J*. External circumstances then brought the interview to an end.

## **PROTOCOL II**

### **Entrance of Alice**

1. The written name was exhibited to Alice by the assistant, and a rapid explanation was given of the posthypnotic suggestions regarding vowels and the replacement by numerals of the seventh, eighth, and ninth letters, and of T. L.'s insistence that there was a mistake in the writing of the name. Following this the assistant left.
2. Alice studied the name as it was written and then counted the letters of the alphabet rapidly.
3. Alice's explanation: *J* has the ordinal position of *10*, but the omission of the vowels gives it the ordinal position of 7—7 however is actually identical with *G*, hence it cannot be used to designate *J*. Therefore, *J*, the seventh letter, must be written as *10*. In brief, *J* is both the seventh and the tenth letter, but it can be written numerically only as *10*.
4. Alice was then shown T. L.'s written production (Figure 6). This she promptly read as "Numbers for letters," illustrating this significance by immediate reference to the use of a *10* for a *J* in the written name.

5. The investigator then gave Alice the additional information about the assistant's interpretation of the letter *N* as signifying "No" (cf. Figure 2).
6. The writing was read then by Alice as, "Not letters; numbers for letters."
7. Alice's explanation: The second character in the written explanation actually is a *T* as well as an *F* and may equally well be read as a *4*. T. L.'s passive acceptance of the interpretation of a "No" serves to transform the first two characters of the writing into the word "Not" with the vowel omitted; furthermore since the second character is obviously an *F*, and also a *4*, emphasis is thereby placed upon the second character, and this is indicated doubly by the fact that the letter *F* actually is the fourth letter in the alphabet with the vowels omitted. Hence *F*, by virtue of all this, can be used to signify "*for*" as a simple pun as well as an abbreviation.
8. Therefore, on first reading the written explanation, one reads "Not letters," but since this is only part of an explanation, one must reread the written characters for their additional meanings; hence on second reading one reads "No 4 ltrs," or "Numbers for letters."
9. The investigator accepted this reading unquestioningly, but asked what the *th* meant, since it appeared in both of T. L.'s written explanations.
10. Alice first explained with the single word "sign," but finally declared that it was connected "by the sign," which she identified by gesture as the line underneath the *th*, with the second character of the written explanation, and that it "explained" the "mistake."
11. Alice's explanation: The second character reads *T*, *F*, *4*, and *for*, but in relation to the *th* it also reads *7*. *G* is the seventh letter in the alphabet. *G* should be written as *7*. *G* is written *G* in the name—hence, *G* is a mistake.
12. The investigator then asked Alice to read aloud the written explanation, which she did as follows: "Not letters; numbers for letters; not 7; seventh letter; 7 in place of letter," and as this explanation was read, Alice declared that there was a concealed *7* in the word *lttrs*, an item which had been consistently overlooked by the investigator.
13. As an additional explanation Alice added, "7 should be in the place of the letter *G* in the name, but a mistake was made and *G* was written. So to explain what he meant by 'a mistake,' 7 is written here [pointing to the concealed 7 in the character *lttrs*] so that you can see that there is really a 7 in the place of *letters* where you should read it, but where you really read just *lttrs*. "
14. The investigator asked if there were any further explanation of the *th*, since *H* is the eighth letter.

15. Alice explained, “It is a sign. You read *7-th* not *7-t-h*. “ To this was added, “Not mistake like *G*. It [*th*] is a sign.”
16. The investigator then raised the question of *G* becoming the fifth letter of the alphabet with the vowels omitted. Alice explained that *G* could not be the fifth letter because the difficulty about the *J* had definitely established *G* as the seventh letter.
17. Alice was then asked about the letter *K*. Again she explained that the establishment of the letter *J* as number *10* provided a point of orientation for all of the letters of the alphabet, regardless of the omission of the vowels, and she restated the fact that the vowels had only been forgotten, but not the fact of their existence. Therefore, the letter *J* established as number *10* would automatically cause *K* to be letter number *11* and *G* to be letter number *7*.
18. Alice then was asked about the identification of the letter *F* as the number *4* by virtue of the omission of the vowels. Alice pointed out immediately that this was for purposes of punning and that anything was permissible in a pun.
19. Alice was then asked to explain how it was that she could interpret such cryptic writing.
20. Alice’s explanation: “Oh, that’s easy. That’s just the way I always think and write. Just a little means a lot.”
21. Alice was asked, “How could you know that the writing could be interpreted?”
22. Alice’s explanation: “When you know about the vowels and the numbers, then you could see lots of meanings all at once right there and you could just read them.”
23. When asked about the written digits in Figure 4, Alice explained that they meant the same as the writing, but not so clearly.

## ***PROTOCOL III***

### **The next day**

1. Subject T. L. reported to the investigator an “amusing hypnagogic experience” in which “I remembered the whole situation. I had a complete conscious explanation at the time. I was so sure of it, too; I wanted to argue. I said there was a mistake. I remembered every little detail of that whole situation, and, at the same time, in that hypnagogic state I could see the whole thing in an entirely different way. Half asleep there, I could see my conscious understanding of that whole situation and at the same time I could see my subconscious understanding. The two were so different, and I had been so sure of my conscious understanding, but it really was

all wrong. I didn't have anything right in my conscious understanding at all, and yet I wanted to argue; I was looking for an argument.”

2. The investigator asked T. L. for an account of his conscious understanding.
3. T. L. declared that he could not remember anything about it except that it was all wrong, nothing right. “I wasn’t even thinking about the things I thought I was thinking about.” The investigator asked him to explain this more fully. T. L. replied, “Consciously I said there was a mistake, but the mistake I thought I was talking about wasn’t a mistake at all. I thought I was talking about *J*, but in that hypnagogic experience I knew that *J* was right but that *G* was a mistake. *J* was just a mistake to my consciousness even though it was not a mistake to my subconsciousness.”
4. The investigator asked T. L. to give an account of his subconscious understandings.
5. There followed then an explanation of the writing in which item by item was accorded the same interpretation as had been given by Alice. The method by which his explanation was achieved was one based upon sudden flashes of insight, such as obtain in the solving of a puzzle. Thus in relation to the second character (cf. Figure 3) he declared he could explain it best by writing it from memory, whereupon he proceeded to write the French form of the numeral 7 (the subject had studied French). In the usual position, elevated above the line, he added to this numeral a *th*. When the accuracy of his recollection was questioned, he became decidedly disputatious and insisted that it was right because of the line underneath the *th*. From these disconnected flashes of insight partial understandings of several different aspects of the problem were obtained. Alice, on the other hand, recognized the numerical quality of that character along with its other attributes without resort to intermediary steps.
6. The order in which T. L. built up his interpretations of the written explanation shown in Figure 6 was as follows:
  - (a) Declaration that the use of a *10* for a *J* in the written name was not an error but that the *G* was an error.
  - (b) Statement that the writing (Figure 6) read both “Not letters” and “Numbers for letters.”
  - (c) Elucidation of the use of a *10* for a *J*. “Without the vowels *J* was the seventh letter, and I had to put a number for that letter, but I couldn’t put a 7 because even if there were no vowels you had to count their places, and that would make *G* the seventh letter, just as *J* was, so I just wrote the correct number for the letter *J*. “
  - (d) Identification of the *F* (Figure 2) as a *T*, an *F*, a *4*, and as for, followed by its identification as a 7 as described in Item 5, and by relating this explanation to the clarification of the “mistake” contained in the letter *G*.

- (e) Declaration that there should be a 7 in addition to the one contained in the second character of the written explanation, to be read with the *th* as “seventh letter.”
  - (f) Discovery of the concealed 7 and the reading of the message as “Not letters, numbers for letters, not 7, seventh letter, 7 in place of letter.”
  - (g) Clarification of the question of the *K* and the *H* in the same fashion as Alice had done.
  - (h) Discovery of the pun on *4* and *F* contained in the second character of the written explanation, since previously he had regarded the *F* as a simple abbreviation for *for*.
7. Declaration that the four digits, illustrated in Figure 4, constituted a similar but less satisfactory explanation than the writing in Figure 6.
  8. Explanation that Figure 6 differed from Figure 5 only because of the assistant’s interference. Alice had declared them to be identical in meaning.

## **DISCUSSION**

I. The main event of this unplanned and unexpected experience is in itself worthy of record, for it is an arresting fact that one human being in a dissociated, trancelike condition can accurately decipher the automatic writing of another—writing which neither of the two subjects was able to decipher while in states of normal consciousness. The observation stresses from a new angle a fact that has often been emphasized by those who have studied unconscious processes but which remains none the less mysterious—namely, that underneath the diversified nature of the consciously organized aspects of the personality, the unconscious talks in a language which has a remarkable uniformity; furthermore that that language has laws so constant that the unconscious of one individual is better equipped to understand the unconscious of another than the conscious aspect of the personality of either.

If this is true, and it seems to be a fact attested from many sources, it must give psychoanalysts reason to wonder as to the wisdom of confining themselves exclusively to the technique of free association in their efforts consciously to penetrate into the unconscious of a patient.

II. When one turns to the details of this experience, one finds several points which need more specific emphasis and certain basic questions which remain wholly unanswered.

- (1) In the first place it is striking that in the translation of automatic writing, as in the interpretation of dreams, each element may be made to do double and triple duty: to wit, the several purposes subserved by the letters *N* and *F*.
- (2) Again we see that here—as in dreams, puns, elisions, plays on words, and similar tricks that we ordinarily think of as frivolous—all play a surprising and somewhat disconcerting role in the communication of important and serious feelings. We accept this type of thought and language in simple jokes, as for instance in the old conundrum of childhood: “How do you spell ‘blind pig’?” to which the answer is “blndpg—leave out

the ‘eyes.’“ But it is ever a source of fresh amazement when the unconscious processes express weighty and troublesome problems in a shorthand which has in it an element of irreverent levity.

(3) In the whole episode there are two untouched problems—why in the first instance the “mistake” occurred at all (the slip is seemingly trivial, a tempest in a teapot), and second why, when the mistake had occurred, the first subject, T. L., could not have recognized it and corrected it simply and directly. Perhaps it is of importance that the mistake concerned the patient’s own identity—i.e., the automatic spelling of his own name. It will be recalled that in the course of the experiment his name had been changed by suggestion to “Jack Young.”

It is possible that a highly charged rebellion against the implantation under hypnosis of this alternative personality, struggling with a coexistent attitude of passive submission to the authority of the hypnotist, may account for several things: the exaggerated tempest, the curiously evasive quality of some of the replies, the ambiguities (as if he did not know whether to correct the error or not), the elements of malicious humor, the literal-mindedness, the hiding. All of this seems to indicate that, both in the automatic writing and in the subsequent efforts to translate it, the subject is struggling simultaneously to explain and to hide his meaning. In support of this hypothesis there is one possible explanation of the writing, which neither subject offered although it is a rather obvious alternative: if *N* equals *not*, and if *F* is also a *T*, and if we consider that the first letter of the following group of letters is *L*, then the first three letters would read “not T. L.” —in other words, not the subject’s own initials.

It may well be that if we knew enough about the subject, T. L., and the identifications which must make up the basis of the structure of his whole personality, that this otherwise mysterious little episode would then become quite understandable.

# **Experimental Demonstrations of the Psychopathology of Everyday Life**

Milton H. Erickson

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## **INTRODUCTION**

The experiments reported below were conducted for the most part in the presence of a seminar of graduate students held in New Haven under the leadership of Dr. Sapir during the spring of 1933. In addition, a few experiments which were performed elsewhere are included.

The subject who was used for many of these demonstrations had frequently before volunteered for similar purposes. He knew nothing, however, of the plans for these experiments; they represented situations which were entirely new and problems with which he had never before been confronted.

In his approach to such demonstrations this subject customarily reacted in a way which was fairly characteristic for many others. Ahead of time he often appeared to be resentful and anxious, or overeager about the impression which he and the experimenter would make. Suddenly, however, with the beginning of the lecture or demonstration, he would seem to shift the responsibility completely and to lapse into an attitude of complete comfort, with loss of all tension and worry.

Following one of the demonstrations described below the subject told the experimenter that his shift in mood had been even more marked than usual. The night before the lecture he had been unable to sleep and had felt more than ordinarily resentful that on so important an occasion no rehearsal or preparatory discussion had taken place. He had even developed some nausea and diarrhea. All of this nervousness had disappeared completely, however, as he entered the lecture room on the morning of these experiments.

## **I. UNCONSCIOUS DETERMINANTS OF THE CASUAL CONTENT OF CONVERSATION**

The subject was brought into a state of profound hypnosis, during which he was instructed that after awakening he would (1) notice Dr. D. searching vainly through his pockets for a package of cigarettes; (2) that he then would proffer his own pack, and (3) that Dr. D. absentmindedly would forget to return the cigarettes, whereupon the subject would feel very eager to recover them because he had no others. He was further told that

- (4) he would be too courteous to ask for the cigarettes either directly or indirectly but that  
(5) he would engage in a conversation that would cover any topic except cigarettes,  
although at the time his desire for the return of the cigarettes would be on his mind  
constantly.

When he was awakened, the subject saw that Dr. D. was looking for cigarettes. He thereupon courteously offered his own and at the same time became involved in a conversation during which Dr. D., after lighting the cigarette, absentmindedly placed the pack in his own pocket. The subject noted this with a quick glance, felt of his own pockets in a somewhat furtive manner as if to see whether or not he had another pack, and showed by his facial expression that he had no others. He then began chatting casually, wandering from one topic to another, always mentioning in some indirect but relevant fashion the word "smoking." For example, he talked about a boat on the bay at New Haven, commenting on the fact that the sight of water always made him thirsty, as did smoking. He then told a story about how the dromedary got one hump and the *camel* two. When the question of travel was raised, he immediately pictured the pleasure he would derive from crossing the Sahara Desert rocking back and forth comfortably on a *camel*. Next he told a tale of Syrian folklore in which again a camel played a role. When he was asked to tell something interesting about patients, he told of taking a patient to see a marathon dance which the latter enjoyed immensely while he himself was reminded by the antics of the dancers of a circus where one would see elephants, hippopotami, and *camels*. Asked what he would like to do, he commented on the pleasant weather and said that there was nothing more glorious than paddling in a canoe or floating at ease on the water, smoking.

## ***II. MANIFESTATIONS OF UNCONSCIOUS AMBIVALENT FEELINGS IN CONVERSATIONS ABOUT A PERSON***

During hypnosis the subject was told that he admired and respected Dr. D. very much but that unconsciously he was jealous of him and that because of this jealousy there would be a cutting edge to complimentary remarks he would make. He was further told that after awakening a conversation would be started with Dr. D. in which he would take part. The subject was then awakened, and the conversation began.

The topic of traveling and its contribution to personal education was mentioned. The subject immediately brought up the fact that Dr. D. had studied both in the Middle West and in the East and that, having traveled abroad as well, he might well be called cosmopolitan. He himself, he added, would like to travel and get a cosmopolitan education, but in the last analysis that was what was being done by any old tramp who traveled from one part of the country to another by stealing rides on freight cars. There followed a discussion of human behavior as it reflected local environments, during which the subject remarked that the man who had traveled showed a broader knowledge and better understanding of people and of cultural things; he added, however, that the same thing might possibly be said of any resident of East-Side New York.

### **III. LAPSUM LINGuae AND UNCONSCIOUS IRONY**

During hypnosis the subject was instructed that after he awakened, Dr. D. would begin talking to him about some abstruse subject in which he was not at all interested, and that although he would actually be profoundly bored, he would try to appear interested. He was told that he would want very much to close the conversation, that he would wish for some way of shutting off this interminable flow of words, that he would look around him in the hope of finding some distraction, and that he would feel that Dr. D. was terribly tiresome. He was then awakened, whereupon Dr. D. began the conversation. Although the subject appeared to be politely attentive, Dr. D. would occasionally say, "Perhaps you're not interested." The subject would reply with excessive emphasis, "Oh, yes, certainly, I'm very interested." Now and then he would interrupt Dr. D., trying to pin him down to some definite point for discussion, but each time this effort was evaded. At length the subject began glancing about the room and was noted casually to observe an open door. Finally he interrupted Dr. D., saying, "Excuse me, I feel an awful draft," and got up to close the door. As he did so, he was asked what he was doing. He replied, "The air seems to be awful hot ['hot air!']; I thought I would shut off the draft." When the hypnotist pretended not to understand and asked him what he was doing, the subject replied, "Why, I just shut the bore." His remark was then repeated by the hypnotist for the benefit of those in the audience who had not heard it. When the subject heard his statement given as "shutting the bore," he started visibly, seemed tremendously embarrassed, and with much urgency turned to Dr. D., saying, "Did I say that? I didn't mean that. I just meant I closed the door." He was very apologetic in his whole manner and bearing.

### **IV. UNCONSCIOUS RESENTMENT EXPRESSING ITSELF IN MASKED FORMS THROUGH A SMOKE-SCREEN OF OVERCOMPENSATORY COURTESY**

The subject was told during hypnosis that he felt antagonistic, resentful, and jealous of Dr. D. and that this emotional state would persist after he was awakened. He was also told that after awakening he would try to be courteous and acquiescent toward Dr. D. in every way and would appear to be willing to do anything requested of him.

After being awakened, the subject seemed to be entirely at ease; he responded courteously to some casual remarks addressed to him by Dr. D. Presently Dr. D. asked him if he would mind changing his seat. The subject replied certainly not, that he would be delighted, but that he was quite comfortable where he was; if it would make Dr. D. more comfortable, however, he would be delighted to change his seat. The request was repeated, whereupon the subject arose and asked Dr. D. to designate the precise chair in which he was to seat himself. He walked over toward the designated chair but asked Dr. D. if perhaps a certain other chair might not serve even better, since the reason Dr. D. had given for his request was that he was not quite in full view of the audience. When Dr. D. insisted that the designated chair was the better one, the subject, with great courtesy, still questioned, seeming nevertheless most willing to do precisely what was desired and to be hesitant only about seating himself before he was absolutely certain of Dr. D.'s wishes.

After much insistence by Dr. D. that he seat himself the subject agreed that the chair indicated was precisely the one that he ought to sit in and proceeded to do so; but as he did so he moved the chair about six inches to one side and shifted its position so that it faced in a slightly different direction. Immediately upon seating himself he turned and politely asked, "Is this the way you would like to have me?" After a few moments of casual conversation Dr. D. found fault with his position and asked him if he would mind taking his original chair. He rose promptly, said that he would be delighted to sit anywhere that Dr. D. wished but that perhaps it would be better if he sat on the table, and offered to move the designated chair to any desired spot, suggesting some clearly unsuitable positions; finally, when urged insistently to sit in the chair, he again had to move it.

## **V. AMBIVALENCE: MANIFESTATIONS OF UNCONSCIOUS CONFLICT ABOUT SMOKING IN THE DISTORTION OF SIMPLE, DAILY SMOKING HABITS**

During profound hypnosis, the subject was instructed to feel that he wanted to get over the habit but that he felt it was too strong a habit to break, that he would be very reluctant to smoke and would give anything not to smoke, but that he would find himself compelled to smoke; and that after he was awakened he would experience all of these feelings.

After he was awakened, the subject was drawn into a casual conversation with the hypnotist who, lighting one himself, offered him a cigarette. The subject waved it aside with the explanation that he had his own and that he preferred Camels, and promptly began to reach for his own pack. Instead of looking in his customary pocket, however, he seemed to forget where he carried his cigarettes and searched fruitlessly through all of his other pockets with a gradually increasing concern. Finally, after having sought them repeatedly in all other pockets, he located his cigarettes in their usual place. He took them out, engaged in a brief conversation as he dallied with the pack, and then began a search for matches, which he failed to find. During his search for matches he replaced the cigarettes in his pocket and began using both hands, finally locating the matches too in their usual pocket. Having done this, he now began using both hands to search for his cigarettes. He finally located them but then found that he had once more misplaced his matches. This time, however, he kept his cigarettes in hand while attempting to relocate the matches. He then placed a cigarette in his mouth and struck a match. As he struck it, however, he began a conversation which so engrossed him that he forgot the match and allowed it to burn his fingertips, whereupon, with a grimace of pain, he tossed it in the ashtray. Immediately he took another match, but again introduced a diverting topic by asking the audience in a humorous fashion if they knew the "Scotch" way of lighting a cigarette. As interest was shown, he carefully split the match through the middle. One half of the match he replaced in his pocket in a time-consuming manner and tried to light his cigarette with the other half. When it gave too feeble a flame, he discarded it and had to search for the second half. After striking this, another interesting topic of conversation developed and again he burned his fingers before he made use of it. He apologized for his failure to demonstrate the "Scotch" light successfully and repeated the performance, this

time holding the flame in such a way as to ignite only a small corner of the cigarette from which he succeeded in getting only one satisfactory puff. Then he tossed the match away and tipped the cigarette up so that he could see the lighted end. He started to explain that that was how the "Scotch" light was obtained and noted that only one small corner of the cigarette was lit. He smiled in a semiapologetic manner and explained that he had really given a "Jewish" light to the cigarette, whereupon the lighted corner expired. He made a few more humorous comments, and as he talked and gesticulated appropriately, he rolled the cigarette between his fingers in such a fashion that he broke it, whereupon he put it aside and took another. This time a member of the audience stepped up and proffered him a light, but as the lighted match drew near to the tip of his cigarette the subject sneezed and blew it out. He apologized again and said he thought he would light his own cigarette. While taking out his matches, he commented on the vaudeville trick of rolling cigars from one corner of the mouth to the other and proceeded to demonstrate how he could roll a cigarette in that fashion, which he did fairly successfully. However, in doing so he macerated the tip of the cigarette and had to discard it. He took another, holding it in his mouth while he reached for his matches, started a conversation, and took the cigarette out so that he could talk more freely. It was observed that he took the cigarette out with his hand held in the reverse position to that which he usually used, and after completing his remarks he put the dry end of the cigarette in his mouth, exposing the wet end. He then tried to light this, held the match to the tip in the proper fashion, puffed vigorously, finally got a puff of smoke, and then blew out the match. Naturally the wet end of the cigarette did not burn satisfactorily and quickly went out. He looked at it in amazement and in a semiembarrassed manner mumbled that he had lit the wrong end of the cigarette; he then commented that now both ends of the cigarette were wet, and discarded it for another. After several similar trials he finally succeeded in lighting the cigarette. It was observed that although he took deep puffs, he tended to let his cigarette burn undisturbed, and that instead of smoking it down to a reasonable butt, he quickly discarded it.

A little later, while smoking, the subject attempted to demonstrate the violent gestures of a patient and in so doing knocked off the burning tip.

Then while lighting another cigarette he became so interested in talking that he lit the cigarette in the middle rather than at the tip and had to discard it. As usual he showed profound embarrassment at seeming so awkward.

(On other occasions when the subject had demonstrated this phenomenon, he would finally complete the demonstration by selecting a cigarette in a strained and laborious fashion and then, obviously centering all of his attention upon the procedure of lighting it, he would hold his hand tensely as he lit the match, applying it with noticeable rigidity to the cigarette and holding it there so long and puffing so repeatedly that all doubt was removed concerning the actual lighting of the cigarette, whereupon his whole manner and attitude would relax and he would appear to be physically comfortable.)

## **VI. UNCONSCIOUS CONVICTIONS OF ABSURDITIES WITH RATIONALIZATION IN SUPPORT OF THE BELIEF IN THEM**

During hypnosis the subject was instructed that he was about to be reminded by the hypnotist of something he had known for a long time, that he had known it both as a result of his own experience and from reading about it in authoritative books. This, he was told, was the fact that "all German men marry women who are two inches taller than they are." A state of absolute emotional and intellectual belief in this was suggested, and he was warned that he might be called upon to defend this statement. He was told that he had read of this in a book written by Dr. Sapir in which the reference occurred on page 42. He was informed that he would know this not only in the hypnotic state but also when awake. The subject was then wakened.

During the course of a casual conversation mention was made of the peculiar customs of various nations and peoples. Remarking that he was reminded of a peculiar custom among the Germans, the subject went on to describe the suggested phenomenon in a matter-of-fact way. When his statement was challenged, he expressed obvious surprise that anybody should doubt it. He argued that it was entirely reasonable, that customs established from some simple purpose could be perpetuated by future generations until, regardless of their absurdity, they were looked upon as rational and commonplace. From this statement he proceeded to draw a social parallel to the attitude of Mussolini regarding compulsory marriage, arguing in a logical, orderly, and reasonable fashion. When this failed to convince the doubters, he drew upon personal experience, citing examples in a casual, simple, matter-of-fact and convincing manner and calling upon others in the group to verify his statements. When they failed to do so and cited contrary instances, he smiled agreeably and stated that every rule had its exception and that the failure of the German in the audience to confirm his observation was characteristic of the well-known tendency to overlook the obvious in familiar situations. When he was asked whether any authority in the field was known to hold such a belief, he promptly stated that he had read the same observation in a book by Dr. Sapir entitled *Primitive Peoples and Customs*. When he was asked where in the book it was described, he smiled in a deprecating fashion and remarked that it had been so long since he had read the book that he could not be sure of the page but that, as he recalled it, it seemed to be between pages 40 and 45-44 perhaps; this despite the fact that the hypnotist had specified page 42. He was then asked by a member of the audience what chapter it was in; he stated that as far as he recalled it was chapter two. Asked for the chapter heading, he explained that he had read the book so long ago he really could not recall it. When a member of the audience then stated that such a belief was contrary to all common sense, the subject, in amazement and with some embarrassment, asked rather urgently, "Surely you would not dispute a man as famous and distinguished as Dr. Sapir," nodding his head toward Dr. Sapir. His whole manner was suggestive of intense surprise at such arrogant disbelief.

## **VII. AUTOMATIC WRITING: UNCONSCIOUS OBLITERATION OF VISUAL IMPRESSIONS IN ORDER TO PRESERVE A HYPNOTICALLY ORDERED AMNESIA**

During hypnosis the subject was instructed that on awakening he would engage in a casual conversation and that as he did so his hand would begin writing, but that he would have no knowledge of what he was doing.

After he had written some incomplete sentences, he was asked what he was doing by others in the audience. With some amazement he explained that he had been talking to Dr. D. When he was informed that while talking to Dr. D. he had also been writing, he immediately pointed out that this could not have been since he had been holding a cigarette in his right hand. (He had actually transferred the cigarette from his left to the right hand upon completing the writing.) As the audience continued to insist, he pointed out that he had had no pencil and nothing to write on, in addition to the fact that *he knew* he had not been writing and that the audience must have been mistaken. His attention was then called to a pencil and some paper on the table; he seemed surprised to see the paper and pencil and insisted that he had not had anything to do with either. He was asked to examine the paper to see if there were not some automatic writing on it, or at least writing. He picked up the paper, glanced at the top sheet, shook his head, and began slowly to thumb over each sheet, examining the papers over and over again on both sides, and finally restoring the pile to its original state. He said that he found no writing on any of the sheets. His attention was called to the top sheet, which he was asked to examine. He looked it over carefully at the top, turned it over and examined it, seemed to be in doubt as to whether or not he had taken the top sheet, and took the second sheet; he examined that, put it away, and glanced at the third sheet; he then seemed to feel that possibly he had had the top sheet in his hand, so he reexamined that very thoroughly and carefully and then, still holding it right side up, declared hesitantly, as if he hated to dispute with the audience but felt compelled to disagree, that there was no writing on the paper. One of the audience called his attention to the particular part of the paper on which there was writing. He glanced at it, looked back at his informant in a puzzled way, and then reexamined that part of the paper. After turning it over somewhat doubtfully and glancing at it, he turned it right side up again. He then began holding it so that the light struck it obliquely and finally declared, still in a puzzled fashion, that there *really* was no writing on the paper. Finally he was given the suggestion by the hypnotist that there was writing and that he would see it. He glanced back at the paper in surprise, and then an expression of amusement and amazement spread over his face as he saw the writing apparently for the first time. He commented on the juvenility of the handwriting, disowning it. When asked to tell what it said, he showed much interest in reading the characters but appeared to have a certain amount of difficulty in deciphering the writing. The last word was incomplete: he read it, spelled it, and stated that it seemed to be only part of a word. When he was asked to guess what the word was, he promptly reread the sentence in order to get the context, but was unable to guess. He then wanted to know why the writing had not been finished and was informed by the hypnotist that if he would just watch the pencil on the table, it would suddenly lift up in the air and begin writing the rest of the word. He looked doubtfully at the hypnotist and then said, "Why, it's lifting up," seeming to have no realization that his own hand was picking up the pencil

and holding it poised in position to write. Gradually his hand began forming letters. He was asked what the pencil was writing, to which he replied, "Wait—wait; let's see"; he appeared to be entirely absorbed in the supposed phenomenon of a pencil writing alone. The hypnotist watched the writing, which was proceeding very slowly, and soon realized that the word in question was *delicious*. The hypnotist then announced this to the audience while the subject was writing the last four letters and finished by the time the subject had finished writing. The subject looked up upon completing the word and said, "It's *delicious*," and then read the sentence to see if the word was relevant to the meaning. Apparently he had not heard the observer announce the word to the seminar.

### **VIII. "CRYSTAL-GAZING": HALLUCINATORY VIVIDNESS OF DREAM IMAGERY EMBODYING ANGER DISPLACED FROM HYPNOTIST ON TO DREAM PERSON**

In a somnambulistic state the subject was instructed that he was to gaze at the wall and that as he did this the wall would become distant, faraway, foggy, and blurred; gradually a dark point would appear, which would become more and more elaborate, that movement would enter the scene, and soon he would see a well-known and emotionally stirring moving picture.

The subject began these observations with faint interest and considerable difficulty at first, but gradually a profound change in his manner and attitude occurred as he was seen to watch the moving images with intense interest. He resented any inquiries as to what he was seeing and gave the impression that he did not want to be distracted from the scene. Now and then he would turn slightly to ask, "Did you see that? Watch." The moving scene was from Rasputin and the Empress, showing the stumbling and falling of the Czarevitch, to which the subject showed appropriate emotional reactions. He went on to describe the sequence of events in proper chronological order. When the demonstration had gone far enough, he was told that the picture was changing. He disregarded this; when the hypnotist insisted, he declared that he did not want to listen now, that the hypnotist should wait until the picture came to an end. He was obdurate about accepting any suggestions concerning the changing of the picture. The suggestion was then tried of speeding up the movie, making it go faster and faster. When this was done, it was possible to shift the scene to a hospital picture, which he described as one in which *a nurse shouted loudly at a patient*. Here he manifested great resentment toward the nurse for doing this, apparently hallucinating the nurse's voice. The incorporation into the hallucinatory image of his anger against the experimenter and the childlike and fear-laden exaggeration of his impression of loud and angry voices because of his own inner anger were all very evident.

### **IX. IMPLANTATION OF A COMPLEX**

During hypnosis the subject was instructed to recall having had dinner at Dr. DA home on the previous day. He was then told that the hypnotist would review a certain series of actions which had occurred on the previous day and that the hypnotist would refresh his memory of certain things that the subject had done which he regretted intensely and

which constituted a source of much shame to him. Thereupon he was told to remember how during the course of the afternoon he had stood by the fireplace, leaning against the mantel while talking to Dr. D. about various subjects, when his eye happened to fall upon a package of cigarettes lying behind the clock on the end of the mantelpiece. The tale went on that Dr. D. had noticed his glance and had proceeded to tell the subject that the package of cigarettes was a sentimental keepsake of his marriage, that he and his wife had received this package of cigarettes on their wedding day and had preserved it unused ever since. As Dr. D. added various romantic elaborations, the subject had not paid much attention because he was really rather bored by the sentimental story. After fingering the package, Dr. D. had replaced it at the other end of the mantelpiece; but the subject had not paid any attention to this either. Shortly after this Dr. D. and his wife had left the room for a few minutes. During their absence the subject noticed that he was out of cigarettes and glanced about the room to see if his host had some. Noticing a pack of cigarettes at the other end of the mantelpiece, he thought that his host would have no objection to his helping himself. He stepped over and took this pack of cigarettes from the mantelpiece, opened it, extracted a cigarette, lit and smoked it. Not until he had finished smoking did he realize that this was the very pack of cigarettes which Dr. D. had placed at the end of the mantelpiece instead of returning to its original hiding-place behind the clock. The subject was then reminded of how distressed he had felt, of his sense of being in a quandry as to what he ought to do, of how he had hastily closed the pack and had replaced it behind the clock and had then decided that he had better put it where Dr. D. had placed it, but how before he could do this his host had returned so that he had been forced to carry on a casual conversation with this burden on his mind. Furthermore he was told that even now and after awakening this burden would still be on his mind.

The subject was roused, and after a few brief remarks Dr. D. offered him a cigarette. The subject started, glanced furtively first at Dr. D. and then at the hypnotist, and finally in a labored fashion reached out and accepted the cigarette, handling it in a gingerly manner. Dr. D. began an innocuous conversation, but the subject paid little attention to what was said and asked Dr. D. what he thought about sentimentality, uttering the word *sentimentality* in a tone of disgust. He then stated that he himself was not sentimental and that he tended to dislike people who were sentimental and maudlin. He stated that he hoped that Dr. D. was not sentimental, that he did not impress the subject as being sentimental. Dr. D. made another attempt to change the topic of conversation, but the subject persisted with his own line of thought. He raised a hypothetical question about a man who owned an old homestead and who, as a result of the economic depression, had lost much money and was in a quandary about the necessity of selling it. He went on to talk of the burning of the house, of the house going up in smoke, and various allied topics. He then talked of guilt feelings, how everybody stole, how he himself had stolen; he wanted to know how Dr. D. would feel about anybody who had stolen unwittingly.

Another attempt by Dr. D. to change the trend of the conversation failed. The subject then told of having once stolen a cigar which belonged to a man who had kept it for sentimental reasons. He said he had taken the cigar and smoked it without realizing that it was a keepsake, and that he had felt very bad about it and wondered about the possibility

of replacing it so that the sentimental man would not be angry with him. In a defensive manner he then expressed a high regard for a person's feelings and contended that nevertheless people should not think too hard of others who had unwittingly violated some of their sentimental values. After this he stated that not only had he stolen the cigar but he had even stolen cigarettes (pause), a pack of cigarettes. As he said this, he glanced in a particularly furtive manner at Dr. D. and also at the hypnotist, and seemed very ill at ease. He told about having smoked a cigarette and having enjoyed it, but that it had left a bad taste in his mouth afterward and that even though he had stolen the cigarettes long ago, he could not get them off his mind, that they still troubled him, though common sense told him it was nothing to be concerned or worried about.

#### **X. THE ASSUMPTION OF ANOTHER'S IDENTITY UNDER HYPNOTIC DIRECTION, WITH STRIKING UNCONSCIOUS MIMICRY AND THE ASSUMPTION OF UNCONSCIOUS EMOTIONAL ATTITUDES**

During hypnosis the subject was informed that after awakening he would be Dr. D. and that Dr. D. would be Mr. Blank, and that in the role of Dr. D. he would talk to the pseudo Mr. Blank. Additional suggestions which the subject fully accepted were given to complete the transidentification. After the subject was awakened, a conversation was begun. The pseudo Mr. Blank questioned him about his work in the seminar, as though he were Dr. D.; the subject responded by giving an excellent talk about his experiences in the seminar and his reactions to the group, talking in the phraseology of Dr. D. and expressing the personal attitudes of Dr. D. A chance conversation with Dr. D. on the previous day had supplied him with a great deal of information which he utilized fully. It was noted also that he adopted Dr. D.'s mannerisms in smoking and that he introduced ideas with certain phrases characteristic of Dr. D. When the pseudo Mr. Blank challenged his identity, the subject contradicted Mr. Blank politely and seemed profoundly amazed at Mr. Blank's remarks. Then suddenly, with an expression of dawning understanding, he turned to the hypnotist, saying, "He's in a trance, isn't he?", and thereafter was only amused at Mr. Blank's remarks. Mr. Blank then questioned the subject about his wife, to which the subject responded in a way that would have been natural for the real Dr. D. When asked about children, he assumed an expression of mild embarrassment and replied, "not yet, but you never can tell." Mr. Blank then began talking to the hypnotist in his ordinary fashion, at which the subject again seemed tremendously surprised. With a puzzled look on his face, he suddenly leaned over and tested Mr. Blank for catalepsy. When he found none, his face was expressive of some concern; he promptly whispered to the hypnotist, "He's coming out of the trance," but was relieved when the hypnotist assured him that it would be all right if this happened.

Finally, when an attempt was made to rehypnotize him in order to restore his own identity, the subject displayed the emotional attitude of resistance toward the induction of hypnosis which would have been entirely characteristic of the real Dr. D. The subject seemed actually to experience the same emotional responses that Dr. D. would have had at such a time. Finally, because he appeared to be entirely resistive to simple suggestion, it was necessary to induce hypnosis by indirect methods.

This rather astonishing result offers a technique for the experimental investigation of the phenomena of identification and of the unconscious incorporation of parental emotions by children.

# Demonstration of Mental Mechanisms by Hypnosis

Milton H. Erickson

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After general introductory remarks on the special advantages of hypnosis as a means of demonstrating the mechanisms and dynamics of behavior, I introduced 3 normal subjects to the audience and conversed casually with them to demonstrate their ordinary behavior. This was followed by the rapid hypnotizing of all 3 subjects, with demonstration of some of the more common hypnotic phenomena, particularly ideomotor action, catalepsy, rapport and, finally, the somnambulistic hypnotic trance in which the subjects give an outward appearance of being awake and in full contact with their surroundings, and yet are actually completely out of contact with their surroundings except as instructed by the hypnotist. Then followed a series of demonstrations directed to the clarification of various psychic dynamisms.

Subject 1, on reaching the somnambulistic state and opening his eyes, was found to be oriented as if he were in my office, rather than in a lecture hall before an audience. This orientation on the part of the subject was found to be entirely valid, and every response he made, direct or indirect, disclosed him to be acting entirely as if he were actually in my office. This manifestation was discussed in detail, emphasis being placed on the hypnotized subject's ability to exclude, or to fail to respond to external stimuli and to react to internal stimuli as if they derived from the outside; a parallel was drawn with the reality of the delusional beliefs of psychotic patients.

Subject 2 was then placed in rapport with Dr. R. W. Cavell, and a casual conversation followed, after which I made a long series of suggestions to the subject to the effect that she was acquiring a retroactive amnesia extending to the tenth year of her life. In this manner it was possible to induce this young woman to "regress" in the patterns of her behavior and to react as if she were 10 years of age, giving the responses characteristic of a child and showing the emotional reactions, the general social patterns and the juvenile attitudes characteristic of that age. The subject in the mental state of 10 years was then interviewed by Dr. H. Reye, who questioned her extensively, eliciting replies in accord with the understanding of a child of 10.

This demonstration was discussed with emphasis on the necessity of a time-taking procedure of suggestion as a measure of permitting the subject, who is receiving such suggestions, to acquire the "mental set" by means of which there can be reestablished the levels of mentation characteristic of any suggested age without interference from subsequently acquired experiences. A parallel was drawn with the forms of regression encountered psychiatrically.

Subject 3 was then employed to demonstrate, while in the somnambulistic state, the phenomenon of negative hallucination. Dr. Cavell was pointed out, and the subject was told that shortly he would leave and that she would not see him again. After these suggestions had been given effectively, innumerable attempts were made by Dr. Cavell to establish either a positive or a negative contact with her, but the subject manifested neither avoidance of nor response to him. So far as could be determined by indirect as well as direct measures, the subject remained totally unable to make any form of response to Dr. Cavell. This was discussed, and a parallel was drawn with various forms of denial of reality observed in psychotic patients.

Hypnotic suggestions were given to subject 1 to the effect that there would appear on the floor a large crystal in which he was to see a crystal image of recent events. The subject accepted these suggestions and had a remarkably complete visual image of the lecture room as it had been during the earlier part of the evening; extensive questioning disclosed that the experience for the subject was exceedingly realistic. Discussion was offered, and parallels were drawn with the processes of reliving as it develops in psychotherapeutic measures.

Subject 3, still in the somnambulistic trance, was given a series of suggestions directed to the evocation of the phenomenon termed "resistance." To this end the subject was instructed to be entirely courteous and compliant toward Dr. S. H. Ruskin in every detail; yet at every opportunity the subject was to avoid, escape, evade, resent and resist every casual request of conversational remark made. After a brief pause, the subject was awakened and a casual conversation initiated, leading to the introduction of the subject to Dr. Ruskin. Then followed a general conversation, in which the subject missed no opportunity, however direct or indirect, to oppose Dr. Ruskin in every conceivable way, yet maintaining an attitude of impeccable courtesy. An attempt was made by Dr. Ruskin to have the subject take another seat, and every request and insistence on his part was countered effectively by courteous resistance; when he finally made it impossible for the subject to avoid compliance, the latter yielded, but moved the chair to a new position, thereby subtly nullifying the compliance. This behavior was discussed in detail in relation to the problems represented by both conscious and unconscious resistance shown by patients.

Subject 2, in the deep trance, was instructed that after awakening she was to recall a trip made by the hypnotist to Detroit, in an effort to visit a certain hospital, and the losing of his way. The subject was given a false address for this well known hospital and was told to insist, argumentatively, when awake, that this false address was the only correct one.

After awakening, subject 2 obeyed instructions fully and became involved in arguments with the members of the audience as to the location of the specified hospital. Innumerable items of proof were advanced by the subject to confirm the false address, and I discussed in general the fixity of the subject's beliefs and the general imperviousness to any reasoning approach to her delusional ideas. A parallel was drawn between this behavior and the general attitude taken by the psychotic patient when a reasoning approach is made to any form of abnormal ideation.

To subject 3 there was then suggested, in the deep trance state, a phobia for cats and a long series of suggestions was given, building up in the subject an intense fear, dislike and abhorrence of cats and anything connected with them. The subject was told that this fear would persist even after awakening, but that it would be concealed, denied and repressed from all conscious awareness. After this complex had been thoroughly implanted, the subject was allowed to awaken. Dr. Cavell took a seat beside the subject and by slow degrees led up to the topic of people's interest in pets. When this conversation had been well established, the subject began manifesting intense and uncontrollable abhorrence of and disgust for people who had any interest in animals, particularly cats, and numerous instances were cited by the subject in which persons who like cats were found to be undesirable or abhorrent. Finally, the conversation disclosed that Dr. Cavell owned a cat, whereon the subject showed a marked distaste for the proximity of her chair to Dr. Cavell, and recourse was had to various subterfuges on her part to effect a change to another seat. Dr. Reye then approached the subject to ask questions about cats, with the result that the subject became increasingly tense and emotional and unable to discuss cats without expressing intense, unreasoning and irrational hostility toward them. Finally, when questioned as to the duration of this feeling of hatred toward cats, the subject gave a long story about always having hated and abhorred cats. When all the classic manifestations of an acute phobia had been manifested clearly and unmistakably, the subject was rehypnotized and the phobia removed completely by psychotherapeutic suggestions and the giving of insight.

After this, subject 3 was rehypnotized, and a second complex was implanted in which the subject was told that, purely by accident, through a state of absentmindedness, she had seriously offended subject 1, with whom a friendly feeling had always existed. The subject was told that this result now belonged to the past, that there was nothing that could be done about it, and that it might just as well be completely repressed and forgotten.

After this, subject 3 was awakened, and, by manipulation of the situation, subjects 3 and 1 engaged in a casual conversation. During the course of this, subject 3 resorted to every conceivable misunderstanding of subject 1's remarks to offer an apology. Overcompensatory behavior and inexplicable embarrassments were demonstrated by the subject in a clear fashion. Many of the remarks made by subject 3 carried a double meaning easily apparent to the audience, but which bore only a simple conscious significance to the subject. In elaboration of the demonstration, I discussed the significance and effects of repressed material on ordinary behavior.

Subject 3 was again hypnotized; the previous complex was removed, and suggestions of an intense desire to smoke were given. At the same time the subject was instructed to want to avoid smoking, to hate smoking and yet to feel bound by an uncontrollable desire to smoke, a smoking compulsion being thereby effected. On awakening, the subject manifested marked restlessness, made several remarks about my smoking, commented that I seemed to have matches, and remarked that I had sometimes offered people cigarettes; when one was offered to her, it was rejected with a statement that a cigarette

of a special brand was desired. Since a package of this special brand was found in the audience, a cigarette was offered to the subject, who took it unwillingly and refused to smoke unless some one else joined in the act. After much dilatory activity and ineffective efforts to light the cigarette, the subject finally began to smoke in an easily recognizable compulsive fashion, becoming harshly critical of the cigarette and of the general situation, obviously not enjoying the cigarette and yet feeling compelled to smoke. Every effort made on the part of members of the audience to induce discontinuance of the smoking met with firm resistance, despite the subject's repeated insistence that she had no desire to smoke and despite her ready desire to get rid of the cigarette, the subject finally began to smoke in an easily recognizable compulsive obsessive form of behavior.

After this, I gave a general review of the various demonstrations and drew parallels between psychoneurotic behavior, psychotic behavior and normal behavior and the various types of behavior manifested by normal hypnotic subjects, closing my remarks with emphasis on the value of hypnosis as an instrument for the teaching of the dynamics of behavior and as a means of creating within the laboratory various types of behavior which could then be subjected to critical laboratory analysis.

# **Unconscious Mental Activity in Hypnosis— Psychoanalytic Implications**

Milton H. Erickson and Lewis B. Hill

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Quarterly* and were written for the original publication.

Misconceptions regarding the alleged limitation of hypnotic psychotherapy to hypnotic suggestion are current because of the failure to differentiate between (1) the process of inducing trance states and (2) the nature of the trance. Since hypnosis can be induced and trance manifestations elicited by suggestion, the unwarranted assumption is made that whatever develops from hypnosis must be completely a result of suggestion, and primarily an expression of it.

The hypnotized person remains an individual, and only certain limited general relationships and behavior are temporarily altered by hypnosis. Hypnosis is in fact the induction of a peculiar psychological state which permits subjects to reassociate and reorganize inner psychological complexities in a way suitable to the unique items of their own psychological experiences.

## **CASE REPORT**

Dr. Jane was a quiet, earnest, hardworking, highly intelligent woman intern. During the course of her hospital service she had often sought help and instruction from me about her ward work. She had shown much interest, and had often watched my hypnotic experiments. She had been asked repeatedly to act as a subject but had always politely refused. I and various other members of the professional staff characterized her as a decidedly insecure, rather neurotic woman who probably suffered from some distressing personality problem.

After about six months' professional association with her, she came unexpectedly to my office and related with some pressure and urgency that she had a serious personal problem that she must decide within the next month. For months, every time she tried to make a decision about it, her thoughts became blocked, she became anxious, and she dismissed it by absorbing herself in work. She had developed insomnia and drove herself from one task to another to fall asleep from exhaustion. She invited my assistance and prescribed the manner in which it was to be given. Some evening when it was convenient for me, I was to go to her apartment and hypnotize her, adding that she did not know why she wanted me to do it. She warned me not to question her because she did not know the answers. She dictated in detail the manner in which I was to proceed in hypnotizing her:

I want you to be very emphatic about instructing my unconscious to think my problem through in a cool, unemotional fashion. I want my unconscious to discover what that problem is because I really don't know, and to look at it from every angle, size it up, and then make some sort of a final formulation no matter what it is. Watching your subjects has impressed me with the way the unconscious can handle problems a person doesn't know he has. I know I have a problem that troubles me, makes me irritable and lose a lot of weight. I am just plain disagreeable in company. This can't go on. I've got to leave the hospital soon, and I can't even make any plans. So I want my unconscious to straighten things out for me.

This is what I want to do. First hypnotize me very soundly, and when I am in a deep trance, tell my unconscious everything I have just told you, using the notes you have made so that you don't omit anything. I want you to be as careful and as complete as you are when you are giving your experimental subjects suggestions. You don't know what your instructions are going to result in, and it is the same way with me. I don't know and you don't know what it is all about, but if you tell my unconscious everything I have told you, it will understand. Be sure to tell it that it must think the whole problem clear through. Be emphatic.<sup>1</sup>

She disclaimed with obvious sincerity any additional understanding of her problem and said that she could not give any more information, although she felt herself willing to do so. She left the office hastily.

On meeting her during the next two days, no reference was made to the visit, even though several opportunities were offered her. On the third day she was asked casually about her plans for the evening. She replied she felt so tired that she planned to go to bed early and get some rest. Nothing in her manner indicated any awareness of a possible significance to the question.

At seven o'clock that evening she seemed astonished to have me call on her. She met the situation in a socially adequate fashion and invited me in for a visit. During the general conversation that ensued it became apparent that she had developed an amnesia for the visit to my office. She yawned repeatedly, each time apologizing for her seeming inhospitality, and confessed to having insomnia. This was seized upon to introduce the topic of hypnosis and the suggestion was offered that she might try hypnosis to induce sleep. Contrary to her previous refusals, she consented and promptly adjusted herself in a comfortable position on the couch.

She responded quickly and soon developed a profound trance. She was told to sleep deeply and continuously for half an hour during which I would absent myself, the purpose being that of providing ample opportunity for her to develop a profound trance state. She passively assented.

Returning in half an hour I told her to continue sleeping deeply, and I began a rather rambling monologue, making vague general references to the office visit followed by repeated comments on the autonomy of the unconscious, its ability to respond adequately, and its capacity to solve mental problems as well as, or even better than, the conscious mind. There followed a systematic review of the conversation of the initial interview, to which she seemed to listen most attentively and with some show of emotion.

At the conclusion she was asked if she understood the nature of her problem and if she were willing to examine it and to solve it. With much emotion she answered, "Yes, I know what it is. I understand. It is hard to decide, but I have to do it and I suppose I might as well now." Asked if she wished to talk about her problem, she replied that she did not want to have anybody know anything about it, that her purpose was to solve it entirely by herself. How long a time would she need? After a few moments she answered thoughtfully, "Come back in an hour and ask me if I am through and I will tell you."

An hour later she was still sleeping soundly. Asked if it was time to awaken her, she answered, "I am almost through. It will probably take me half an hour longer." In half an hour she responded to my return with the spontaneous statement, "I'm through. I've got it solved. You can awaken me any time you want to, but I think you better tell me after I am awakened that it will be all right to know the answer." I agreed but instructed her to remain asleep some minutes longer in order that she might be sure of everything. Some minutes later she was told that she might awaken if she were really convinced that her task was done. Immediately she repeated her request that she be told after awakening that it would be all right to know the answer. Prompt assurance was given, and then she was told to awaken gently and easily. This she did, and at once she began to converse freely, picking up the general thread of the conversation preceding the trance. She gave no evidence of recollecting that she had been hypnotized nor of understanding the reason for my presence. She was puzzled to note the passage of time and seemed at a loss to account for it. Remarks about "our chat a few days ago" elicited only responses relating to previous professional discussions.

After 20 minutes of conversation it became obvious that she could not understand the prolongation of my inexplicable visit and that she was secretly wishing I would leave. At the door I paused and, looking at her intently, remarked, "It is all right now for you to know the answer."

She seemed to be at a loss to find words with which to reply. Again I said, "It is all right now for you to know the answer." She responded with a bewildered look, suddenly reacted with a startled flush, and became tremulous and jerky in her movements and speech. With great anxiety she explained, "Won't you excuse me, please. I just found out something I wasn't prepared to know. I have to think about it right away, so won't you please leave me alone. Please hurry."

The next day and thereafter she made no reference to the foregoing incidents. Everything indicated that she had complete amnesia for both the office visit and the events of the

evening. It was noted by her colleagues that she was working with greater ease, was more sociable, and was eating better and gaining weight.

Approximately a month after the hypnotic session she came into my office and displayed a wedding ring. She had not publicly announced her engagement of a month ago or her marriage of the previous day, choosing instead to tell it first to a selected few. I was included because in her ward work I had given her special supervision and instruction for which she felt particularly grateful. She seemed to have no conscious awareness of any other possible instance that might have some bearing upon her choice.

The man she married was known to have been interested in her for some time, but she had not been known by me or others on the staff to have shown any real interest in him. Neither was she known by her colleagues to have spent much time in his company, although it was common knowledge that he was greatly attracted to her. It was the consensus that he was decidedly her inferior in so many aspects that he would never be able to interest her, despite his substantial worth as an average citizen.

Shortly after the marriage the young couple moved to another city; nothing more was heard of them until three months later, when she walked into my office and stated that she wanted to thank me.

That morning, lying in bed after her husband had gone to his office, she had begun thinking about how happy she was and wondering what she had ever done to deserve such happiness.<sup>2</sup> Previous to marriage she had anticipated some difficulties in marital adjustment because of the marked difference in nature between her husband and herself; yet each time a disagreement seemed impending, it had solved itself without difficulty. Then she had experienced a sudden rush of memories relating to the interview in my office and the subsequent hypnotic session. "It was the first time I was consciously aware of those things. Of course I was conscious of what I was telling you that morning, but as soon as I left your office, I must have repressed it completely, because I never thought of it again until this morning. When you came to my apartment to hypnotize me, I was surprised to see you. I didn't know why you came. I just thought it was a social call. And when you suggested hypnosis to me, I was so tired that I didn't remember that I had always refused to be a subject for you."

I asked her to give a detailed account of the initial interview. She replied, "Oh, that isn't necessary, I remember all of that distinctly, and besides, that isn't why I came to see you. When I told you I had a problem and that I didn't know what the problem was, I was telling you the truth. I just knew something was wrong. I was in love with John but I didn't know it, and I wouldn't have believed anybody who told me so. I tried not to go out with him very often, and I didn't, but just the same I was in love. There are many differences between John and me, as you know. Our family background is entirely different. John just plugs along, and I was always at the head of my class. I have many interests—music, literature, art—that John hasn't. I repressed all my feelings for him the way I must have repressed that whole talk with you. Watching you do hypnosis gave me an idea. When I figured out that plan, I had the feeling that my problem must be

something I didn't want anybody to know or I wouldn't be keeping it from myself so completely. That is why I asked you to do things the way I did.

"When you put me in a trance, I was scared as soon as I went under and you began talking about the things I had said to you. But I knew right away that you were just talking to my unconscious and that if I woke up I wouldn't remember a thing, the way your other subjects do, so I felt reassured, and let you go ahead. When you finished, I was all ready to go to work, except that I was afraid of how it might turn out because I knew I loved John. As soon as you left the room, I saw in my mind, like a patient's hallucination, a great long manuscript that slowly unrolled. It was divided into pros and cons about marrying John. What they were you don't need to know."

Questioning disclosed that these were such words or phrases as "industrious," "lacking in imagination," but she was unwilling to cite other than descriptive items of which she knew me to be aware. She stated that there were many items which were of particular and personal importance to her and would be difficult for anybody else to understand.

When the lists had been read through completely, they were reread thoughtfully, and then a process of "cancellation" was begun, sometimes by crossing out pairs, sometimes by adding an item from one list to one in the other list and then rewording the combined item, giving it an entirely new significance. Some items in both columns could be dealt with only by rewording them through an inclusion of pros and cons applicable to herself rather than to John; then some of the reworded items could be "crossed out," "balanced," or "combined." In counting the items remaining in each list, she found that "there was a marked preponderance of pros, and so I reread the list of pros again because it seemed too good to believe, and I found that the count was only arithmetically correct because the pros were all so much larger than the cons. Then I knew what my answer really was.

"When you returned a second time and suggested that I sleep a few minutes longer to make sure my problem was solved, I wanted to tell you what the answer was, but I felt John should be the first to know. I was already sure, so I just slept as you told me. I knew hypnotic subjects had amnesia to trance experiences, so I carefully told you to be sure to tell me to know the answer.<sup>3</sup>

"When you awakened me, I didn't know I had been asleep, and you seemed to have been there only a few minutes. I was awfully upset when I noticed how late it was. I couldn't pay attention to what you were saying because I was wondering what had happened to make it so late. When you said it would be all right to know the answer, I couldn't understand what you meant. When you repeated it, I suddenly knew that I loved John and would marry him if he asked me to. I was rather rude to you, but I didn't know how that idea had come to my mind, and I had to be alone and think about it. The more I thought about it, the more I knew I loved him. I went to bed happy for the first time in months, feeling as if I didn't have a problem in the world. The next morning I had thoughts about nothing except John. We became engaged, and I wanted to tell you about it, but I couldn't figure out any reason for doing so. When we got married, I wanted to tell you

and the only reason for doing so that I could think of was the help you had given me in my work. That didn't seem to be sufficient reason, but I used it anyway."

Two years later an unannounced call on the couple found them happily married. The wife commented with pride upon the accuracy with which her unconscious had evaluated the whole situation. She had told her husband nothing about her hypnotic experience. Some years later they were found to be most happy, and enthusiastic parents of several children. Word has been received directly and indirectly from them from time to time indicating a most successful marriage. [By M.H.E.]

## **CASE REPORT**

A young college woman, who for a year had frequently acted as an experimental hypnotic subject for me, some months later appeared at my office stating that she wished to have a long personal talk with me about an important problem.

"In my hypnotic work with you," she said, "I have learned a good many things and feel well repaid for the time and effort I have given you. Now I want to ask a personal favor of you, and it is to be a favor and not a repayment for what I have done for you. The things I have learned have more than repaid me. I am emphasizing this so that you will do exactly as I wish and not according to any ideas that you might have. I have planned this all out.

"You know practically everything about me except that I have fallen in love and am going to be married soon. That is all settled.

"George is not like me at all. We are both college graduates, but where I am brilliant, George is just of average intellect; however, he has a much more charming personality, is even-tempered and socially much more adaptable. But he is stubborn, too, and he is much more confident of his intelligence than he has any right to be. He doesn't know I am a lot more intelligent than he is, and he is not the kind of person who would ever find it out. Whereas I am excitable and quick-tempered, he is always calm and unruffled. He is just exactly the kind of man who will make up for and correct the deficiencies in my own personality, and we are very much in love. I have tried to fight against it because I am afraid I will make George unhappy, but it is no use; so I have tried to size up our personalities and tried to reach some understanding of what I must do to meet his needs if we are to have a happy married life, but I become confused and get nowhere.

"I want you to put me in a deep trance and tell me to remember clearly all that I have just been telling you. When that is done, give me instructions to think about George and myself and about the things that I need to do to ensure a reasonably good marital adjustment. Do not try to question or help me. Watch me closely, and whenever you see me getting emotionally disturbed or confused or inattentive, reassure me that I can and must do this thinking, and keep me at it until I am through. When I get through, I will let you know what else, if anything, should be done."

Accordingly, a deep hypnotic trance was induced. She was then told to review silently and in full everything she had said in the waking state and to elaborate each idea mentally until it was clear in her mind. At first she objected, but finally acceded when reminded that the suggestion was at her own request. During the review she manifested much tension. When she seemed to have completed this task, she was told to reflect on exactly what it was she had in mind to do and how she was to do it, and when her method of approach to her problem was clearly formulated, she was to proceed. Again she objected to this suggestion but soon acknowledged its desirability. After some meditation she declared that she was fully ready and asked if she might go ahead with her task. She was told to proceed. It soon became evident that she had decided to resort chiefly to a silent review or study of whatever it was she had in mind.

In a short time she became distressed, and she was urged to begin again and to postpone temporarily any particularly distressing items until other matters had been cleared up sufficiently to permit thinking about the more painful things. When she gave evidence of distress, rest periods of two to five minutes were suggested to her, and these seemed to help her.

At times she would verbalize details of past emotional experiences known to me. Sometimes she would ask me to move to a remote corner of the room and order me not to listen, as she talked to herself in a low tone. On these occasions she would ask for the instruction to "go ahead and face it through." Approximately two hours were spent in this manner, often with a display of intense emotion which seemed to be alleviated by general reassurances from me. She then declared that she was through with her task and asked to be awakened with emphatic instructions from me that she retain full consciousness of her trance experience.

Upon awakening she was sorry for having been so slow but stated that she still was not through with her task. She now wanted to review her recollections of the trance; until this was done she would not know what next step would be necessary. She spent half an hour in silent meditation without display of emotion excepting gestures expressive of decision or conviction. Questioned about her progress, she replied that she had now reviewed all the "major matters," adding that her recollection of much of the trance was exceedingly vague; nevertheless, she felt "entirely comfortable" about everything.

She now wished to discuss with me various items, but I was only to listen, except that now and then I was to take "a negative attitude," which, she explained, would encourage her to be positive and emphatic in her statements.

She spoke in vague generalities about marital adjustment, sexual satisfaction, self-control of temper, and the need for marital partners to encourage each other's interests. Finally she offered the opinion that she really had nothing further to discuss. I agreed at once, whereupon she abruptly contradicted me to declare emphatically that there was still much to be said. She then launched into an earnest discussion of all the things she felt confident would contribute materially to a successful marriage, an excellent evaluation of her own

personality and of George's, as was later learned by direct contact with him. This discussion was all at a superficial social level.

She brought the discussion to a close by stating that there remained only one thing more for me to do: "If there is to be any negative attitude toward our marriage, it is better for you to have it and not me. I want you to be pessimistic and doubtful and not encourage it. Don't say anything openly; just take a general negative attitude. *I want you to keep that attitude for at least two years* when it won't make any difference because then I will be able to show you. I will write you newsy letters which you will answer politely, and in some subtle way, such as *hoping* all is going well with George's work, express your negative attitude."

During the next two years occasional letters were received and promptly answered, always with some ambiguous remarks about George. Six months after the expiration of the two years she wrote a letter saying that she was pregnant and that her husband had been promoted to a much better position.<sup>4</sup> Her intimate friends all reported the marriage to be most satisfactory, and after five years it appears to remain so. George, like John, was not told of these matters. [By M.H.E.]

## **DISCUSSION**

The study of unconscious mental activity by other techniques provides methods of checking psychoanalytic data, theories, and techniques. If it is found that the therapeutic results of psychoanalysis seem to be duplicated by different and much less time consuming techniques, psychoanalysts should be quick to investigate these possibilities in the hope that they may be verified.

These case records of two patients treated by hypnosis are of interest precisely because of the almost complete absence of evidence of unconscious mental activity in the manner in which it regularly appears in the course of psychoanalytic therapy. There is no history, there are no free associations, the patients do not even give a clear statement of their problems, and the state of the transference must be inferred. These records cannot be studied as psychoanalytic documents. This is not a failure in transcription, for the hypnotist in a personal communication states that he does not know appreciably more about his patients' ideational content than is in the record. The therapeutic result is achieved without "making the unconscious conscious."

Recognizing this difference, it still appears profitable to make a comparison between the two methods upon the basis of certain familiar concepts:

- (1) Unconscious<sup>5</sup> conflict and indecision within the psyche gives rise to anxiety against which defenses are erected. These defenses prevent both unconscious resolution of the conflict and its emergence into consciousness, and may result in inhibition of thinking, confusion, interference with activity.
- (2) An unconscious conflict may be resolved unconsciously.

- (3) The result produced by this unconscious work is evidenced by the emergence into consciousness of a thought, or a decision, which the person explains either in terms of some unconscious derivatives, more or less symbolized, or by a rationalization.
- (4) Such unconscious activity can be influenced, accelerated, or retarded by a relationship with another person.

Analysts have found that the transference is a vital part of the therapeutic process and that the intrapsychic conflict would not continue its disturbing existence were it not for current difficulties in personal relationships according to a pattern of transference and provoked by the individual's relation to his environment. The hypnotist<sup>6</sup> evidently holds the view that the intrapsychic conflict exists as an entity complete in itself although modifiable by extrapsychic influences. The transference of the hypnotic subject to the hypnotist is ignored, or at least not utilized as a therapeutic instrument, by the hypnotist. Psychoanalytic technique explores precisely the transference as the essential focus of therapy.<sup>7</sup>

The majority of patients seeking psychotherapy suffer symptoms the causes of which they can only deny or rationalize. Those who believe that they know the nature of their conflicts are still unable to recognize the factors making for their insolubility. While patients claim ignorance of their intrapsychic problems, they relate a running narrative which, when it is completed in the process of analysis, demonstrates that there must have been an unconscious understanding and planning from the beginning. Patients "know" what is troubling them, but the knowledge is too painful to be borne in consciousness without help. The conflict is neither consciously perceived nor effectively suppressed.

The unconscious weighing of pros and cons to arrive at a decision by these two women whose records are presented is routinely observed in analysis. Both these women were familiar with hypnotic experiments and were aware of the possibility of avoiding the conscious working out of their problems. Analysands who have had a long acquaintance with psychoanalytic psychotherapy before making the decision to be analyzed have identical ambivalent feelings about the treatment. Often it is not clear what brings them to the decision to begin treatment. Such patients are sometimes found to have been maintaining defenses against the anxiety incident to partial insight. A good example is a paranoid individual who can no longer endure the "persecutions" of his enemy nor the "deceptions" of his wife. He is consciously convinced about his delusions, but instead of consulting a lawyer, under the guise of seeking protection from the enemy or treatment for his wife, he consults a psychiatrist and becomes convinced that he himself needs treatment. Clearly the unconscious understanding of his problem is far more correct than is his conscious formulation of it.

Psychoanalytic "working through" is essentially due to the fact that once a point is grasped it still cannot be utilized until sundry unconscious associations have become conscious. Psychoanalytic technique endeavors to reduce the stimulus (anxiety) to resistance. The hypnotic technique bypasses the resistance, so to speak. The hypnotist

endeavors to operate directly upon the conflict in the belief that if it is solved, much of the defense will spontaneously crumble.

Although in both cases reported the subjects dictate in detail the method by which the therapy was to be conducted, it can be presumed that the result could not have been accomplished without the mediation of the hypnotist. It might be said that the subjects utilized their transference to the hypnotist, who served in these instances chiefly as a passive instrument and who by following the instructions given him enabled the subjects to accomplish a piece of psychological work. This, of course, is an important part of the function of the analyst in psychoanalytic psychotherapy.

Impressive as the evident similarities between hypnotic and psychoanalytic treatment are, they focus attention upon the conspicuous differences. The first is the contrast between psychoanalytic transference and hypnotic rapport. In the cases here reported little is revealed concerning the patients' transference to the hypnotist except that they respond readily to his verbal suggestions<sup>8</sup>; yet this is not so surprising because he is careful to suggest only what they had previously instructed him to require them to do. That these subjects to this extent maintain the semblance of controlling the transference must be an important factor in reducing overt resistance. Much more important, however, is the fact that the unconscious motivations which arouse latent anxiety and conscious indecision remain unconscious. Noteworthy is the refusal of both subjects to tell the physician what goes on in their mind during the treatment. Patients seeking help for their difficulties of necessity emphasize their failures. This can lead in psychoanalysis to growing resentment through narcissistic injury if the analyst does not occasionally remind patients of their admirable qualities and inhibited abilities. Hypnotic technique does not require that patients communicate, or indeed become aware of primitive or infantile unconscious strivings that are alien to the conscious ego idea. Consequently the subjects are not stimulated to build up resistant and hostile attitudes because the therapy does not require that the unconscious be made conscious.

These two women apparently resolved a specific conflict without consciousness of the content of the conflict at any time during the treatment. There was no interpretation by the physician to influence what they thought. His manifest influence was purely the direction that they think. If this were the complete explanation, it would have vast implications. The hypnotic suggestion could be as unlimited as the total capacity of the patient to think. But this is to assume that the spoken word of the hypnotist constitutes his principal value as a factor influencing the patient. This conception must be incorrect. The physician, by his presence and all that he may represent in his patient's fantasy, must have a profound effect upon the patient, although it is not stated in words and perhaps not consciously recognized.<sup>9</sup>

The statement is of course made that patients like these were not really in great difficulty, that their plans were made, and that they merely resorted to hypnosis as a sort of ritual to bolster their actions; any abracadabra, provided it had local prestige, would have done as well. The same is said repeatedly of psychoanalysis, as in the instance of the woman who consulted a psychoanalyst and after the first interview left her engagement and wedding

rings in the analyst's lavatory. After the treatment she divorced her husband. It can be said that she had decided upon divorce and that the psychoanalytic treatment was something she used to rationalize the decision. This assertion fails to explain why the patient had to resort to such elaborate means of justifying her action. In this instance the patient's analysis revealed that she had married apparently as an act of obedience to her mother but in reality to escape from her mother. To be divorced had for her the meaning that she would have to resume her old relationship with her mother. When, through therapy, she had freed herself from an infantile dependence on her mother, she was able to proceed to terminate an unsatisfactory marriage. That these hypnotic patients did not reveal the nature of the factors which impeded their decisions to marry does not argue that there were none; nor does it prove that these factors were not thought out or altered in the unconscious.

There remains for discussion the value of psychotherapy which does not provide conscious insight. How important is the matter of making the unconscious conscious? Is symptomatic relief the criterion of successful psychotherapy? If patients should be made aware of previously unknown unconscious strivings, is it necessary that they know all of the steps through which their insight is achieved?

There is presented evidence that two patients were able through hypnosis to find psychotherapeutic relief from symptoms without conscious exploration of the unconscious sources of their conflicts. They were able to use the hypnotist to overcome their defenses and to do a piece of mental work. From two cases it is not safe to generalize, but it may be noted that in both instances the problem was one of inhibition in a woman who wished to marry and who had some difficulty in overcoming her doubts. Through the treatment both overcame the inhibition and became free to act. Nothing further was necessary to produce the desired result, marriage. Each of these women appears to have been a relatively normally functioning individual who wished only to overcome an intrapsychic obstacle to marriage and who showed a striking rigidity against self-revelation. This last characteristic may have been influenced by their familiarity with this form of therapy.<sup>10</sup> It further suggests that the method may have special usefulness for individuals who find it difficult or impossible to discuss their problems.

The problem presented by some analytic patients through their unwillingness to reveal some things of which they are quite conscious and their inability to become conscious of other things suggests the possibility of further study and experimentation to determine if there is a place for the use of hypnotic suggestion in the course of psychoanalytic therapy. Based upon this study, the thought recommends itself that, after a certain time in the analysis of patients who found it peculiarly difficult to make free associations, it might be suggested, with or without hypnosis, that these patients cease trying to talk and devote themselves to thinking the matter out in silence.<sup>11</sup> It would appear that if this method were used, it would require that the patients be given the further suggestion that they might, but certainly would not have to, report what had occurred to them during this silent thinking.<sup>12</sup> As indicated earlier in these remarks, this solution would not be an entirely new adventure but merely the recognition and utilization of a possibility which certain analytic patients have demonstrated on their own initiative and which these

hypnotic patients have carried much further. Hypnosis needs no longer to defend itself against the charge that it is “nothing but” suggestion. The method of hypnosis described presents a means of accomplishing vastly more in the way of psychic rehabilitation than the method of forcing upon a patient the hypnotist’s ideas as to the way in which the patient should solve a conflict. This study of hypnotic psychotherapy points a way to research toward a therapy which may utilize all that has been learned both by the hypnotist and by the psychoanalyst.

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<sup>1</sup>In the language of the unconscious the hypnotist is being instructed by the subject to order her to get married—the object of the treatment. [Ed.]

<sup>2</sup>This statement indicates that a disturbing sense of guilt about her relationship to her husband is becoming conscious. [Ed.]

<sup>3</sup>Two things may be noted here: (1) the subject’s conviction that there would be an amnesia, and (2) that the wording of her request concerned only the answer and not the experience of reaching that answer; hence there would naturally be an amnesia for the experience and a knowledge only of the end result.

<sup>4</sup>Again, in the language of the unconscious, the hypnotist had been instructed by the subject to order her to have a baby and also to allow George to achieve some degree of parity with her in order “to ensure a reasonably good marital adjustment.” She did both “in two years” and was then “able to show” the hypnotist that she had obeyed him. Cf. footnote <sup>2</sup>. [Ed.]

<sup>5</sup>No distinction is made here between unconscious and preconscious.

<sup>6</sup>These remarks are limited to the method used in these two cases.

<sup>7</sup> These two women were in states of transference to the hypnotist long before the treatment began. Some of the characteristics of this transference can be inferentially reconstructed. The hypnotist was a person in a position of authority to both. Both women were in states of discomforting ambivalence about marriage. Both had chosen partners who were their inferiors. The transference would seem to be a fantasy compromise in which these women were simultaneously identified with the therapist (both gave detailed peremptory orders as to how the treatment was to be carried out) and in states of submission to him (hypnotism). In the first case the submission was achieved by a device (amnesia); in the second, under protest. In both cases (explicitly stated in the second) the mixed transference to the therapist persisted long after the therapy and was presumably an important factor in the “adjustment” to marriage. [Ed.] Cf. de Saussure, Raymond:

*Transference and animal magnetism. The Psychoanalytic Quarterly, 1943, XII, pp. 194-201.*

<sup>8</sup> In discussions of the mechanism of hypnosis insufficient consideration is given to the possibility of *unspoken suggestion* by the hypnotist to the subject. Cf. de Saussure, Raymond: *Transference and animal magnetism. The Psychoanalytic Quarterly, 1943, XII, pp. 199-200.* [Ed.]

<sup>9</sup>The second subject, who seems less inhibited than the first, makes two statements that may provide a clue. Both women are ambivalent to the point of virtual paralysis about marriage. Both act out their hostility toward men by choosing inferior mates. The second subject says to the hypnotist: “*If there is to be any negative attitude toward our marriage, it is better for you to have it and not me ... just [you] take a ... negative attitude ...*” The fantasy is clear: the hypnotist is magically to take over from her the disturbing hostility she has toward the man she has determined to marry; moreover she demands: “*I want you to keep that attitude for at least two years.*” The marriage then is a “*reasonable marital adjustment*” achieved by an unresolved transference to the hypnotist, reinforced by letters and occasional visits. [Ed.]

<sup>10</sup>The first subject stated: "Watching your subjects has impressed me with the way the unconscious can handle problems a person doesn't know he has."

<sup>11</sup>This many analytic patients do at times without instruction from the analyst. [Ed.]

<sup>12</sup>Such a device could only be used in exceptional cases. As a rule it would vitiate the whole analytic process. Whenever most patients encountered a resistance, they would take this refuge. [Ed.]

# **Negation or Reversal of Legal Testimony**

Milton H. Erickson

Reprinted with permission from the *Archives of Neurology and Psychiatry*, September 1938, Vol. 40, pp. 548-553.

The spontaneous, sincere, and apparently completely unmotivated negation, reversal, or alteration of condemnatory legal testimony previously given by credible witnesses constitutes a difficult and confusing problem. Although found more often by the psychiatrist than by the jurist, such change of testimony can, and not infrequently does, entail serious legal difficulties. Such alteration of testimony is characterized by a complete change in the beliefs and understandings of the witness, effected by unrecognized factors within the personality. It occurs most frequently among the witnesses who are themselves the injured parties and, hence, have presumably every reason for telling only the truth, and it develops usually in relation to crimes of a personally horrifying, traumatic, or repugnant character.

Because of the significance of this type of behavior psychiatrically as well as legally, the following material from the histories in two illustrative cases is presented as a clinical note for the purpose of directing attention to this phenomenon and to the need for an extensive analytic study of the psychological mechanisms and processes involved in these occurrences. Such an analytic study is not proposed in this report, since the data available are limited largely to the original situation and the final outcome. Hence, an effort will be made only to indicate briefly the various psychological factors and the psychic dynamisms contributing to the course of the developments.

The two case histories to be cited have been selected from among others because of the fully established facts of the original crimes, the detailed, factual, and fully corroborated testimony elicited initially, and the absence of external motivation in the eventual development of significant and completely contradictory attitudes and beliefs.

## **REPORT OF CASE**

*Case 1.* This report centers around a police raid on a bawdy house. Arrests were made of two girl inmates aged 9 and 11 years, their parents, who were the proprietors, and twelve male patrons. Full confessions were obtained individually from all the prisoners, those of the adults corroborating fully the essentially identical accounts given by the two girls. In addition, medical examination of the girls disclosed numerous bruises and injuries, substantiating their account of beatings, and also revealed that they had been subjected to vaginal and rectal coitus and infected with syphilis and gonorrhea, both rectal and vaginal.

In the legal disposition of the case the two children were committed immediately to a custodial institution, where they were separated from each other according to the age grouping within the institution and kept for three months in "quarantine isolation" for treatment for the venereal infections.

At the suggestion of a colleague of wide experience in criminology who anticipated the eventual outcome, the two girls were interviewed separately, and an extensive account of the entire experience was obtained during the first week of their institutionalization, with three subsequent interviews thereafter at intervals of two months. The girls' stories were found to be essentially identical and to agree in full with the accounts obtained later from the adult offenders, as well as with the original court testimony.

During the first interview both girls were intensely desirous of securing a sympathetic listener, and both told the story readily, easily, and completely, manifesting much unhappiness over, and repugnance toward, their experiences. Also, they manifested intense fear and anxiety over their physical condition as well as strong specific resentments and hatreds toward their violators and a sense of great satisfaction over the punishments accorded the adults. At the same time it was noted that both girls recalled certain of their experiences with definitely pleasurable, though guilty, feelings and that they were quite shamefaced about their own active participation in certain aspects of their experiences.

A marked change in both girls was noted during the second interview. There was no longer a driving need to tell the story; emphasis was placed on the venereal infection, with the complaints centering around the inconveniences and the annoyance occasioned by the quarantine and therapy, and little mention was made of their former fears of what the disease would do to them. Many details of the original accounts were omitted; others were surprisingly vague or minimized. There was a general tendency to contradict and deny previous statements. Close questioning on a few items disclosed definite reluctance, and even difficulty, in admitting certain facts, and the repugnance previously noted had been transformed into new resentments, especially in connection with the rectal coition. The resentments and hatreds noted previously were markedly increased by the addition of resentments concerning their immediate situation.

At the time of the third interview they had made good recovery from the gonorrhreal infection and were much better adjusted to the institution. Although willing and ready to talk, they seemed to be interested only in immediate matters. Questioning about their past experience elicited an utterly inadequate account, in which even major details were denied or greatly minimized. Rectal coitus was emphatically and resentfully denied by both. There were flat denials of ever having been nude or of having danced exhibitionistically, and they had forgotten the names of half the men. There were many vague statements of "Ma didn't like those things" and "Ma wouldn't let anybody do those things." A few similar statements were made concerning the father. There was a tendency to declare certain of the more offensive details to be "lies" told by one of the men who had been particularly brutal. Furthermore, their reluctance or difficulty in giving any details of their story seemed to be greatly increased. Their affective reaction seemed to be

one entirely of distaste and repugnance to the whole experience, and there was no evidence of pleasurable recollections; rather, there seemed to be an element of sadness and grief. Even the question of therapy for the venereal infections was casually glossed over as a routine health measure peculiar to their present situation, and all the earlier anxiety centering around their physical condition had disappeared. Likewise, the hate reactions centering around the original experience now seemed to be limited to mild resentment over their own imprisonment. The former sense of satisfaction over the legal punishment of the adults had disappeared except for a feeling of pleasure that the man they now accused of lying was serving time.

The final interview was conducted six months after the first. A complete change in attitude was apparent in both girls, though more marked in the younger. Strong resentment was expressed over my interest in the story, and no information was given spontaneously except the emphatic, inclusive declaration that it was "all a lot of nasty lies." A warm defense was given of both parents. The authorities were harshly criticized as unwelcome intruders into a private home, and the whole experience was minimized into the statement that "some bad men came to the house, but nothing bad happened." This statement was persisted in with such obvious sincerity and belief that resort was had to sympathetic questioning concerning the "lies" that had been told. After their confidence had been won with some difficulty, both recounted their original story in fair detail but branded each item as a "regular lie" told by various of the men while in court. Furthermore, they insisted sincerely that they had consistently told me the entire story as a "bunch of lies" maliciously concocted by some men who had had their parents arrested and imprisoned for illegal traffic in liquor. Even close questioning about the injuries sustained and venereal infection elicited either resentful denials or trivial explanations, and they seemed to have no real recollection of the whole experience as an actual happening in their own lives. At no time could their sincerity or their full belief in their statements be doubted.

*Case 2.* This report concerns a young man on parole from a penal institution. After stealing an automobile, he took a young woman for a drive, their intention being to spend the night at a roadhouse of ill repute. He did not disclose to her the immediate circumstances, although she was aware of his criminal history and legal status. During the course of the drive, as a result of recklessness, the car overturned, pinning the young woman beneath it, and burst into flames. The man freed himself but made no effort to rescue his companion, instead fleeing from the scene. Passing motorists rescued the girl, but not until she had been severely burned, in addition to receiving other serious injuries in the accident. The man was apprehended, and at the trial the girl, with much bitterness and hatred, and the motorists testified fully as to the facts, the truth of which the man confessed. About eight months later, without there having been intercession of any sort, the girl endeavored to secure a retrial of the case on the grounds that she had given false and mistaken testimony. The man, when interviewed by me, declared, "She's nuts! She told the truth the first time," and explained further that the relatively short sentence he had received did not warrant his undergoing the anxiety of a retrial, since his indisputable guilt in certain aspects of the case might result in a longer sentence.

The girl, when interviewed by me, was obviously sincere and believed fully that the man had exerted every effort possible to rescue her, giving full details of his endeavors by a process of retrospective falsification and misconstruction. She explained that her intense suffering and the long months of confinement during her hospitalization had made her realize how false her original account had been, since "no human being would do such a thing nor could anybody endure being so treated." She elaborated in detail on how one would feel if deserted, as she was said to have been, and declared that such an experience would be utterly "intolerable" and that one "could only imagine it but could not possibly endure it." When confronted by each item of her original testimony, she misconstrued it so logically and exculpated herself for her "misstatements" and "intentional malice" so contritely on the grounds of the shock and pain she had suffered that she was most convincing, although psychiatrically the inferences to be drawn were quite otherwise. Even the prisoner's direct admission of the truth of her original account was casually disregarded. She insisted rather compulsively that something be done to prove legally that the event as described had never taken place, since her previous testimony had been used to prove that it was an actual occurrence. When, however, it was pointed out that the sentence received by the man was well within the statutory limits for automobile theft and violation of parole and that his criminal negligence toward her presumably had not been considered in the passing of the sentence, she seemed much relieved, considered the situation as a closed incident, and actually continued so to regard it. Apparently she was satisfied that no wrong had been occasioned by her "misstatements," and hence that her "mistaken" testimony had never actually won credence, which, in turn, implied for her the unreality of the original experience.

### **COMMENT**

What might have been the outcome had these cases been again brought into court is only speculative. General experience, however, in similar cases suggests the not unusual development of "reasonable doubt" resulting from the recanting of testimony previously given by an otherwise credible witness and a consequent acquittal because of failure to prove again the guilt originally established. Whether any legal provisions can be made for "witness unreliability" of this character is a serious question, but at least recognition should be accorded to the possibility and the frequency of such psychological behavior, as a measure of lessening the confusion occasioned by it.

Psychiatrically, any discussion of these two, or rather three, cases, since the two sisters were entirely independent of one another in the development of their reactions to the situation, constitutes a difficult problem. To elucidate the various psychological processes entering into the final outcome would necessarily be so speculative as to be unwarranted. A day-by-day account of a highly detailed character would be needed to trace the steps by which the alteration of belief was achieved, and such a measure in itself might serve to bring about an entirely different end result. Also, the data at hand in these cases are insufficient to permit more than a general consideration of the problem represented.

In this regard, however, attention may be directed to the fact that the experiences of the three girls are essentially identical in psychological structure and represent the not

unusual legal situation in which a female, after sexual usage, testifies first against the offending male and then, after a period of suffering, reverses her beliefs and attitudes to testify sincerely in his behalf. This identity is manifest primarily in: (1) the highly pleasurable, exciting initial development of the experience; (2) the sudden complete transformation of this pleasurable situation into one of extreme terror, physical helplessness, and pain, and (3) the final evolution into a situation of long-continued suffering and general helplessness.

In each instance certain psychological elements leading to the final outcome are to be found in common, and these may be summarized as:

1. General setting at defiance of authority and association with, and participation in, forbidden things.
2. A primary sexual relationship, illicit in character and marked by guilty, but pleasurable, participation.
3. Utilization of the female simply as an sexual instrument, without regard for an emotional return to her.
4. Brutality—direct, sadistic and physical in the first case, and indirect and essentially psychic in the second, despite the physical aspects.
5. Infliction of serious somatic injuries serving to constitute both an immediate physical threat and a long-continuing threat of future physical destruction.
6. Suffering experienced in common with the offending male, originating from common guilt and characterized for all parties by loss of freedom, personal helplessness, stigmatization, and uncertainty concerning the future.
7. Intensely bitter, resentful public denunciation of the offender by the victim, with self-exculpation and overemphasis on the other's guilt.

That these common elements were the essential dynamic forces in the negation of the original testimony can only be presumed, but unquestionably they played a significant role in the course of events. The details of the processes by which they served their purposes are a problem that must be left to more extensive studies, since this report can direct attention only to the original situation and the final significant outcome, with some suggestions regarding the processes involved in these instances. Further studies of an analytic character should serve to clarify more fully the psychological processes of retrospective falsification, suppression and repression, memory distortion, affect displacement and substitution, compensatory reactions, guilt reactions, self-exculpation, denial of reality, and wishful thinking, which are shown to a significant degree in the histories in these cases.

In this regard an analogy may be drawn between the behavior reported in these cases and that shown in daily routine life in the repression, faulty recall, and even distortion of unpleasant, disagreeable experiences, since essentially the same dynamisms are operative in both situations, though to different degrees. The more extreme character of the reactions in these cases as compared with that found in ordinary behavior may be attributed to the extreme character of these experiences.

In all probability the initial psychic dynamism in these cases, as in instances occurring in daily life, was the primary repression of the unpleasant affects arising not only from the traumatic aspects of the experience but from the girls' own guilty pleasurable participation. Contributory to this was the peculiar situation in court, in which all three girls, in telling their stories and seeking to affix blame on their aggressors, were forced, psychologically as well as legally, to disclose their own guilty participation. Thus, the two little girls in telling of their nude dancing, wine drinking, singing, and playing with the genitals of the men, and the older girl in describing her intention of spending a night of illicit love-making, were declaring in essence: "All this I was doing to make my aggressor happy, and see what he has done to me." Yet by thus emphasizing the guilt of the men, the girls placed themselves in a definitely humiliating position, thereby giving rise to a compelling need for self-exculpation. This could be possible only in a totally different situation, since self-exculpation could be achieved only by the process of exculpation of others. Hence, repression of self-condemnatory feelings would necessitate repression of other related aspects and would require a total reorganization and reconstruction of the experience in a form more assimilable to the personality.

Also to be considered in this regard are the loss of physical intactness, the infections of long duration and the ever-recurring physical assault involved in the intravenous and intramuscular therapy for the two little girls, and the facial burns, the broken ribs, and the injured arm and legs threatening to disfigure the older girl. These physically traumatic aspects of the experiences gave rise to an intense wish that these things would not and could not be so, that things would change completely. In response to this great need there developed the psychological processes by which, step by step, there could be utilization of repressions, overemphasis of various elements in the experience and distortion of others, until finally there had been achieved a complete reconstruction of the entire experience in a form which could meet the compelling needs of the personality. In the case of the two children one step in this process is clearly illustrated by their statement, "Ma didn't like those things," which progressed to "Ma wouldn't let those things happen."

Thus, shifting of responsibility to their mother for the realities of the occurrence was achieved, enabling them to avoid any necessity for relying on, or even utilizing, their knowledge of the actualities of their experience.

Similarly, the older girl summarized her psychological treatment of the experience with great clarity by declaring it to be "utterly intolerable, one that could be imagined but not endured." By regarding the experience as imaginable but unendurable, she could give herself free rein to regard it as imaginary, utilizing the fact of her survival as proof of its imaginary character. But the fallaciousness of this apparently gave rise to her compulsive need to secure proof from external forces, manifested in her seeking a retrial for the purpose of establishing by formal legal processes the unreality of the desertion. Essentially, this constituted the same process of shifting responsibility for the realities of the experience as was employed by the two children in placing their reliance on their mother.

Thus, her relief on being shown conclusively that the man had been punished only for offenses which she could readily recognize as real and which were not related to her becomes easily comprehensible. The prison sentence proved conclusively to her that the realities of the original situation were only those of automobile theft, violation of parole, and an unavoidable accident, for which no one could be held responsible.

That many considerations other than those discussed entered into the final outcome in these cases is readily admitted, but the deficiencies of the data render further elaboration overspeculative.

# **Permanent Relief of an Obsessional Phobia By Means of Communications With an Unsuspected Dual Personality**

Milton H. Erickson and Lawrence S. Kubie

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For over a year a 20-year-old college girl—quiet, reserved, and well poised—had suffered secretly from constantly recurring obsessive fears that the icebox, kitchen, college laboratory, and locker doors had been left open. These fears were always accompanied by a compulsive, often uncontrollable need to examine and reexamine the doors to make certain they were properly closed. She awoke in the night to make repeated trips to the kitchen in order to reassure herself, but this failed to resolve her incessant doubts about the doors. An additional but seemingly unrelated symptom was an intense hatred of cats, which she considered “horrid, repulsive things.” This feeling she attributed to an early experience of watching “an awful cat eating some nice pretty little baby robins.” It was learned that she enjoyed making pets of laboratory animals such as white rats and guinea pigs despite obsessive fears that she might fail to close the door of the animal room. At the time the patient was seen, her difficulty was becoming more inclusive, and she was beginning to have fleeting recurring doubts about many other doors, although not to a troublesome degree.

## **I. INDUCTION OF CATALEPSY AND OF HAND LEVITATION UNDER HYPNOSIS AND SUGGESTION OF NAME FOR HYPNOTIC PERSONALITY FOR PURPOSE OF CLASSROOM DEMONSTRATIONS**

Without any conscious or deliberate therapeutic intent on the part either of the student or of the investigator, this 20-year-old student of psychology (who will be called ‘Miss Damon’) volunteered to serve as the subject of some experiments in hypnotism. A trance induced at the first session was characterized by a marked degree of amnesia, ready hand levitation, and profound catalepsy. To demonstrate suggestibility a posthypnotic suggestion was given that in the trance her name would be “Miss Brown.”

## **II. PERSISTING FASCINATION WITH LEVITATION AND HORROR OVER CATALEPSY**

The next day Miss Damon sat about the office entirely neglectful of her work and absorbed in inducing hand levitation and arm catalepsy by autosuggestion. She would observe these combined phenomena briefly and then would cause them both to disappear by further autosuggestions. This was repeated over and over throughout the day in a seemingly compulsive fashion. It was noted that while suggesting to herself either the

lifting or the lowering of her hands, she would repeatedly ask such questions as, "Do you see my hand move? How do you explain it? What does it mean? What is happening? Have you ever had such an experience? What psychological and neurological processes are involved? Isn't it funny? Isn't it queer? Isn't it interesting? I'm so curious, I'm just fascinated by it."

Any replies to these comments went unheeded; she seemed unaware of what she was saying.

While inducing *levitation* her facial expression was one of intense, lively, pleased interest; but as her hand or hands reached the level of her shoulders and she began to develop an apparent catalepsy, her attitude would change markedly. A facial expression would appear which one could characterize only as "dissociated." She seemed to lose contact with her surroundings and to become unresponsive to verbal or tactile stimuli. In addition to the expression of dissociation there appeared a look of intense terror, with pallor, dilated pupils, deep, labored, and irregular respiration, a slow, irregular pulse, and marked tension and rigidity of her whole body. Soon these manifestations would disappear, quickly to be replaced by the previous look of eager, amused interest; whereupon she would at once begin suggesting to herself a lowering of her hand and a disappearance of the catalepsy.

Later that day she was asked why she was so interested in catalepsy and levitation, but she could give only such rationalizations as were based on her psychological training and interests. She showed no realization that more might be involved, except for a joking remark that *her extremely low salary warranted her getting whatever experience she could.*

The next day the same behavior began anew. After confirming the observations of the previous day, the suggestion was offered that she might like to try more complex coordinated movements. She was interested at once, and the suggestion was given that she try automatic writing, to which she agreed eagerly while expressing many doubts about her capacity to do so.

### ***III. INVESTIGATION THROUGH AUTOMATIC WRITING, LEADING TO ATTACK OF ACUTE ANXIETY***

After placing her in a suitable position to distract her attention completely from the proceedings, the subject was instructed to read silently an article on gestalt psychology and to prepare a mental summary of it, ignoring as she did so anything that might be said or that might occur.

When she had become absorbed in the reading, hand levitation was suggested. She was then instructed to pick up a pencil and *to write the reason for her interest in hand levitation and in catalepsy.* This last instruction was repeated several times, and in a short time she began to write without any interruption of her reading. Toward the end of the writing she developed body tremors, marked generalized physical tension, deep labored

respiration, and pupillary dilation, and her reading seemed to become laborious and difficult. As she completed the writing, her face was pale and expressed intense terror. She dropped the pencil and explained that she suddenly felt "terribly afraid" and that she wanted to cry but could not understand why this was so since there was nothing to distress her in what she had been *reading*.

With these words her anxiety seemed to disappear completely, to be replaced by an air of eager, puzzled interest; she made no further reference to her emotional distress, apparently forgetting it completely. Immediate questions showed that she was able to give an adequate summary of what she had read. Then she was reminded of the task that had been given her. She inquired whether or not she had written anything and when shown her writing manifested first pleasure and then disappointment. The writing was illegible, scrawling, and even difficult to recognize as such. She studied it carefully, however, and succeeded in deciphering the first word as *trains*, although a careful study of the word and the observation of the movements of her pencil as she wrote indicated that it was *trance*.

Then she was asked to repeat the writing under the same conditions as before. Essentially similar results and behavior were obtained except that this time, instead of dropping the pencil, she continued to make writing movements in the air while expressing verbally her feeling of being "awful scared." Again, immediately upon verbalizing her emotional distress she seemed to forget it and interested herself first in summarizing what she had read and then in attempting to understand her writing. Accordingly she was asked to decipher what she had written, and while she was absorbed in this, low-voiced suggestions were made "to write all the rest which is not yet written on paper." Apparently without her knowledge she resumed the automatic writing in lines consisting of single words or short phrases, one of which was followed by an emphatic period. The completed writing is shown in the following illustration.

Transcendentalism  
subconscious consciousness

intuition consciousness

transcendentalism

transcendentalism

As she wrote, she seemed to the observer to be breaking her message into fragments, writing a little here, moving her hands to another part of the sheet, writing a bit more, then apparently inserting a part between two previously written phrases. Also there was a tendency for her hand to move back and forth over the completed writing, arousing in the observer the suspicion that she was really counting or checking on what had already been written. Subsequently this proved to have been what she was doing: she had rewritten parts because of a persisting dissatisfaction which led her to make repeated changes. The emphatic period was placed only after her hand had wandered back and forth over the page as if searching for the right phrase. It was found later that she had placed a second period after another phrase.

It was discovered ultimately that the writing constituted a complete production, composed of separate but related elements some of which were partial reduplications and rearrangements of various fragments.

Because of her unusual reaction to hand levitation and catalepsy, because of the strong affects of which she was only slightly aware, and finally because of the peculiar character of her automatic writing and of the concomitant conduct, the assumption was made that the writing represented significant material and that unconsciously she was seeking aid from the investigator. It was decided therefore to pursue the problem further. The investigation was carried on jointly by M.H.E., an assistant who served chiefly as a necessary conversational foil, a secretary who took complete notes of everything said and done, and the subject herself.

Because of the peculiar fashion in which the material was presented, the method of presentation itself constituting a significant part of the problem, no orderly or systematic

procedure of investigation could be followed. We were forced rather to proceed by trial and error, attempting and abandoning many leads in the effort to decipher the writing.

More than 12 hours of almost continuous work were required to solve the problem, and all progress was achieved in isolated fragments. No attempt will be made to tell a strictly chronological story of the work, but enough material will be given to show the main steps which led up to the solution of the problem.

#### **IV. THE DISCOVERY OF THE DUAL PERSONALITY**

The first essential step was achieved at the beginning of the investigation and was confirmed throughout: the identification of a second and unknown personality in the subject. This discovery was made in the following fashion.

After the subject's hand had completed the last bit of automatic writing and had placed the emphatic period, the investigator quietly slipped the sheet of paper from under her hand, leaving a fresh one in its place with her hand still holding the pencil. This was done without attracting her attention. She continued her task of deciphering, finally declaring aloud that she could make out only the words *trance, will, my, catalepsy, and ever*, and expressed much amusement over her inability to read more, asking laughingly, "Did I really write that nonsense?" Both the investigator and his assistant replied affirmatively and in the same amused tone. At the moment the subject was leaning forward over the desk, and her hand was out of range of her peripheral vision. As the verbal reply was given to her question, her hand was observed to write "No," of which Miss Damon remained unaware. Immediately the investigator asked, as if speaking directly to the subject, "What do you mean?" and while Miss Damon puzzled over what he meant, her hand wrote, "Can't." Again speaking as if to Miss Damon, the question was asked, "Why?", to which her hand replied, "Damon doesn't know these things."

There followed a series of questions, seemingly directed to the subject, who was merely bewildered and confused because of their unintelligibility to her while her hand wrote appropriate replies. These, with their answers, will be quoted verbatim to show the definition of this second personality. The quotations continue from the last question and reply cited above. The questions were asked orally, the replies given by automatic writing.

Q. Why?

A. Don't know, afraid to know.

Q. Who?

A. D [Damon].

Q. Who does?

A. Me.

Q. Me?

A. Brown.

Q. Who?

A. Me—Brown—B.

Q. Explain.

A. D is D, B is B.

Q. B know D?

A. Yes.

Q. D know B?

A. No. No.

Q. B part of D?

A. No. B is B; D is D.

Q. Can I talk to B?

A. Are!

Q. Talk to D?

A. Want to. [If you want to.]

Q. How long have you been B?

A. Always.

Q. What do you want?

A. Help D.

Q. Why?

A. D afraid.

Q. Do you know what D is afraid of?

A. Yes; D no.

Q. Why?

A. D afraid, forgot, don't want to know.

Q. Think D should?

A. Yes, yes, yes.

Q. You know what it is?

A. Yes.

Q. Why don't you tell D?

A. Can't, can't.

Q. Why?

A. D afraid, afraid.

Q. And you?

A. Afraid a little, not so much.

At this point Miss Damon interrupted to declare her utter bewilderment over the investigator's fragmentary remarks, and demanded an explanation.

Q. Shall I tell her?

A. Sure; she don't know.

The secretary then read the questions, while her answers were shown to Miss Damon. She attended carefully with a look of increasing understanding, finally remarking, "Why that really must mean I have a dual personality," and then was greatly startled that her hand emphatically wrote, "Right." Recovering her poise, Miss Damon asked, "Can I talk to you?" "Sure." "Can you talk to me?" "Yes." "Is your name really Brown?" "Yes." "What is your full name?" "Jane Brown." Later it was found that *Jane* signified identification with a favorite childhood literary character, and that Jane was really the important name, the *Brown* having evidently been added to it at the time of the first hypnotic demonstration described above.

Miss Damon then reviewed the questions and said musingly, "You want to help me, Brownie?" "Yes, Erickson ask, ask, ask." Further similar questions by Miss Damon elicited variations of the same cryptic answer of "Erickson ask," and a stubborn refusal to elaborate.

Throughout the investigation the Brown personality was found to be literally a separate, well-organized entity, completely maintaining its own identity, and differentiating to a fine degree between Brown and Damon. Brown was capable of entering into spirited arguments with the investigator, his assistant, and with Miss Damon, and of expressing ideas entirely at variance with those of Miss Damon. She could know before Damon did what Damon would say or think, and contributed thoughts to Miss Damon in a manner quite as psychotic patients bring up autochthonous thoughts. She would interrupt an attempted explanation of Miss Damon's by writing "Wrong," and would respond to stimuli and cues which Miss Damon either overlooked completely or misunderstood. In fact she so impressed her personality upon those in the office that automatically she was regarded by the entire group as a distinct personality among them. Nor was Brown limited just to the problems at hand. She would enter readily into conversations on many other topics, often resorting to this in an effort to distract the investigator from his efforts. In addition Brown was possessed of a definite sense of personal pride; on two occasions she resented derogatory remarks Damon made about her, and thereupon refused to write anything more except "Won't" until Damon apologized. Brown frequently became impatient and irritable with the investigator because of his inability to comprehend some of her cryptic replies; and at such times she would unhesitatingly and unsparingly denounce him as "dumb."

A characteristic of Brown's automatic script was its economy. A single letter was written whenever possible in place of a word, or a word for a phrase; abbreviations, phonetic spellings, condensations, puns, and peculiar twists of meaning were all employed, at first to a slight degree but to a greater and greater degree as the investigation progressed. Naturally this rendered the investigator's task correspondingly difficult. It was necessary to discover by appropriate questions that Damon, Brown, and Erickson were all designated by their initials; "help" meant "B wants to help D" or "E should help D"; "W.Y." meant "Will you"; "No" sometimes meant *no* and sometimes *know*, an abbreviation of "Brown does know" or some similar phrase; "subconsement" was the condensation of "subitement," "subsequent" and "consequent"; and "Yo" was found to be neither *yes* or *no*, but "I don't know." *No* written from left to right meant "no," but written from right to left signified a "no" reversed, which is "yes."<sup>1</sup> In these respects Brown's language was much like the language of dreams and constitutes in fact a demonstration of the validity of what Freud has written about the use of condensation, elision, reversal of sense, and duality of meaning in the language of dreams.

Another method of abbreviation was the use of a vertical pencil mark to mean "Yes," a horizontal one to mean "No," and an oblique line to mean

I don't know." Also,  signified "First part 'no,' second part yes," while  had the opposite meaning. Similarly , , , signified "First part 'I don't know,' second part 'yes,'" etc.

In addition to these economies Brown utilized innumerable cues and signs to communicate her meaning, which often were exceedingly complicated and abstruse in character. For example, Brown was asked, "Can we get the information from Damon?" Slowly, hesitatingly, Brown moved her hand about the page as if searching for a place to write, then turned the page over and wrote quickly, "Yes." Since this answer was contradictory to previous replies, the investigator replied, "I don't understand," eliciting the comment, "Dumb." Asked "Why," the answer "Saw" was obtained. Much effort finally made it clear that the investigator had observed that before answering the question she had reversed the paper which signified that the question too had been reversed. Asked, "Then the question you really answered yes to was what?" "From Brown."

Another cue given repeatedly throughout the investigation was a very short oblique line made at random on the paper which looked as if she had attempted to write but had become blocked in her effort. Later study of Brown's productions disclosed the line to be an accent mark by which Brown was indicating that a word the investigator had thought to identify as "consequent," and which Brown had affirmed to be both the right word and rightly spelled and, with equal emphasis, the wrong word and wrongly spelled, was really the French word *consequent*. Brown confirmed this guess, and when the investigator musingly remarked, "Well, what do you think of that?" Brown wrote, "Dumb."

Other cues were writing on a fresh sheet to signify a shift to a new aspect of the problem; writing over previous writing; widely separating various parts of a single written response; periods placed within a phrase or remote from a phrase; dropping the pencil with the point or the eraser in direct relationship to a word; peculiar contradictory answers to the same question; counting the letters in a word or the words in a sentence and giving different totals upon repetition of the counts; misspellings to direct attention to a word, and many others, many of which at first either were overlooked completely or were misunderstood.

Brown's attitude toward the investigation was consistent throughout and was highly significant. She asserted emphatically that she alone knew the content of the writing, that Miss Damon did not know, and because of fear could not know; that *Miss Damon needed help which must be given in a way known only to Brown*, and that the investigator's function was primarily the assumption of a very special kind of "responsibility" that permitted Brown to give assistance only in response to direct and specific questions, with the reservation that Brown might accept or reject or postpone the questions as she felt to be best. Brown was found to maintain a highly protective attitude toward Damon, shielding her, demanding special consideration for her, offering encouragement, distracting her attention, deliberately deceiving her, and employing various other protective measures.

Perhaps the best portrayal of Brown's attitude may be found in the following quotations from her answers:

"Writing means a lot, B know it all, D don't, can't, afraid, forgot something a long time ago, D can't remember because she never knew some of it, she just thought she did but she didn't. B afraid to tell D, D get awful scared, afraid, cry. B don't like D scared, won't let her be scared, won't let her feel bad. B can't tell D, won't tell D. D must know. D must have help. B need help. Erickson ask. Ask right question, B tell Erickson right answer, wrong question, wrong answer. Right question only right question. B just answer, not tell, won't tell because D afraid, awful afraid. Erickson ask, ask, ask. Brown answer, not tell, question answer, not tell, question, answer, that help. B answer but not too fast because D get scared, cry, sick. B tell truth, all truth, Erickson not understand, don't understand because he don't know. B trying to tell, Erickson don't ask right questions. Ask, ask, ask. B can't tell, won't tell. B a little afraid; B only answer. Ask, ask."

Repeated and indirect attempts were made to induce Brown to help frame questions, but her reply was always, "Erickson ask, B answer; right question right answer, wrong question wrong answer."

Essentially, therefore, the task of the investigator became an active search for information forthcoming only when a question was found which hit the nail precisely on the head and which could be answered with approximately one word. The cues given by Brown seemed designed in part to provoke and compel further aggressive interrogations. On the other hand, in conversations which touched upon any other topic except the immediate problem, Brown was under no such restrictions. In addition, Brown in these unrelated conversations was at liberty to drop innumerable hints and clues, most of which were overlooked by the investigator.

As these various aspects of the two personalities, their attitudes to the questioner and their methods of yielding information gradually became clearer, the task of discovering the meaning of the writing became relatively easier.

At first the subject was told to write and rewrite her message more and more legibly with each repetition. This was unsuccessful whether the repetitions were of phrases, words, syllables, or letters. An attempt to have the message written with synonyms for the words or merely substituting in other words, so that the investigator could at least determine how many words were involved, was met by a flat refusal: "Won't."

A fresh approach was then begun, and Brown was asked, "Is that sentence correct and complete?" "No." Further extensive questioning finally yielded the cue, "Wrong question." After much futile questioning it was learned that the writing constituted two sentences, hence the investigator should have said *sentences* rather than *sentence*. These sentences, B replied, were abbreviated in form, and the words were either abbreviated or condensed; but B added the reassurance, "All there; B know; B understand; E ask right question; B tell." Next it was learned that the first sentence contained 7, 8, or 9 words; 7

and 8 were stated emphatically, 9 somewhat dubiously; similarly, B indicated that the second sentence contained 13, 14, or 16 words; 13 and 14 emphatically, 16 dubiously. Making the immediate assumption that some of the words were repeated or that some could be broken up into two words, Brown was asked to point to the words as she counted, but she replied, "Won't, not yet." To direct questions concerning these possibilities she replied, "Won't tell." When it was pointed out to her that her refusal to answer these questions was tantamount to admitting that some of the words were either repeated or could be broken into two, Brown conceded, "Maybe," whereupon Miss Damon, who at the same moment was conversing with the investigator's assistant about a recent book, suddenly stammered, complained of feeling frightened, and then continued her conversation, again appearing to repress all knowledge of her emotional disturbance, just as she had done with the panic which occurred during her first automatic writing.

The implication of Miss Damon's behavior was mentioned to Brown, who replied, "Maybe. Not tell too fast yet."

In response to further questioning the words *trance, will, my, catalepsy, every, and ever* were deciphered and confirmed and were placed in order in the sentences as follows:

	<i>Word</i>	<i>Sentence</i>
Trance	1	1
Will	2	1
My	3	1
Catalepsy	10, 11, or 12	1 and 2 counted in one sentence
Every	8, 9, or 10	1 and 2 counted in one sentence
Ever	13 or 14	1 and 2 counted in one sentence

(A fuller explanation of this count must be reserved for the end of the paper.) Further questioning proved fruitless, nor could any aid be secured in further deciphering. Brown simply replied "Won't" to all inquiries.

A fresh start was made by attempting to have Miss Damon look at various parts of the writing and give free associations; but this was interrupted at once by Brown writing, "No, no," and a complete blocking of Miss Damon's efforts by a failure on her part to understand what was desired. This is an interesting parallel to the behavior of those patients in analysis who listen with earnest attention to repeated explanations of what they are to do, but seem incapable ever of digesting what is told them sufficiently to produce any free associations at all. In the case of Brown and Miss Damon it was as if Brown protectingly told Damon when she could think safely and similarly had the power to forbid her to think and thus arrest her intellectual process.

Since Miss Damon knew the Morse code, it was suggested that her habit of drumming with her fingers be employed by Brown to tap out the message. S. O. S., which was obtained repeatedly, meant, Brown explained, "E help, ask."

Efforts then were made to identify the words simply as parts of speech or to identify individual letters as such without regard to their positions in sentences or words. To these attempts confusing, contradictory, and conflicting answers were made which Brown

finally summarized as, "Can't; just can't; not right questions," but no suggestions could be obtained from her as to how the right questions might be asked.

At this point Brown was asked if the investigator might continue his attempts to secure individual words, and she replied, "Try." Accordingly, Brown was instructed to draw two horizontal lines, one to symbolize the most meaningful word in the message and the other the least meaningful, and to draw them any length she wished, equal or unequal, since the lines themselves would have no meaning.

Brown drew two lines, one about twice the length of the other. In drawing the first line, however, Brown was seen to pause momentarily at about the middle, while the second line was drawn in a single stroke. The investigator took this for a cue and immediately extended his pen as if to point to the first line, but actually in doing so covered up the last half of the line. As this was done, Miss Damon, who had been commenting in an amused fashion to the assistant about the investigator's absorption in asking foolish questions, remarked that he was probably too absorbed to notice the unpleasant smell of the cigarette he had carelessly dropped in the ashtray. As the investigator with due apologies extinguished the butt, Brown was seen to push aside the sheet of paper bearing the lines. Again when asked if the investigator might continue his questioning, Brown replied, "Ask, try." Accordingly, her attention was called to the break in drawing the line, and she was asked if this meant a word formed from two words. Despite many variations in the form of the question no answer was obtained except the statement that the right question had not been asked. Finally, the investigator declared emphatically, "That broken line *does* mean two words in the form of one, doesn't it?" "Yes." "And the word *smell* has something to do with the first part, hasn't it?" "No." "You mean that it may or may not be unpleasant?" "Yes."

Here Brown shifted her hand to another part of the sheet, while Miss Damon declared that she had suddenly become afraid and wanted to cry. Brown wrote, "Help D," and when this was interpreted to mean "Comfort D," Brown wrote, "Right." Miss Damon was immediately drawn by the investigator into a discussion of his activities and developed a lively interest in this until shown the broken line, whereupon she again manifested fright, said she could not understand her "funny feelings," and proceeded to laugh them off.

At once Brown wrote, "Feel better, ask," and then wrote "Con," a syllable she had previously written but declared wrong. Extensive questioning followed in which Miss Damon participated actively, with the words *subconsciously*, *subsequent*, *consequent*, and *consequences* coming out, all of which Brown declared to be both right and wrong. Miss Damon impatiently denounced Brown as "crazy" and "a liar." At this Brown refused to write anything except "Won't." Finally in response to the question why, Brown replied, "Angry." As Miss Damon read this, she flushed deeply and explained with embarrassment, "Brown wants me to apologize," and in a shamefaced manner said, "I'm sorry, Brown." Inquiry by the investigator elicited the fact that Brown accepted the apology and would now write again, and spontaneously she wrote "E, E, E," as if addressing the investigator directly while Miss Damon conversed humorously with the assistant about the apology and her "misbehavior." The investigator continued with

"What," to which Brown replied "Sleep." "Why?" "Interferes." As Brown wrote this last word, Miss Damon was still conversing with the assistant and had not been aware of Brown's writing, but as this word was completed, Miss Damon declared, "Why, Brown is going to punish me." Immediate questioning of Miss Damon showed that she had only the "feeling" that she was to be punished and that she could offer no explanation for it unless it was that her apology was not properly offered. While she was giving this explanation, Brown wrote, "E, waiting." Accepting the implied rebuke, the investigator hypnotized Miss Damon, thus removing her as a source of interference.

Thereupon more rapid progress was made in relation to the words which had been obtained previously. Brown eliminated the word *subconscious* and declared that *subsequent* was both the right word correctly spelled, and the wrong word incorrectly spelled. At this point Miss Damon awakened in a state of terror, recovered rapidly, and began talking at random on various topics, mentioning among other things that her grandfather was a French Canadian. Shortly after this Brown wrote "Sleep," and the investigator obeyed the command and put Miss Damon to sleep again. Inquiry disclosed that French words were involved, and the elusive word might be *subsement* or *consequent* or *something like*. While this information was being obtained, Miss Damon repeatedly awakened and fell asleep again, showing intense terror each time she wakened.

Questioned about Miss Damon, Brown explained that nothing could be done to help her, that it was necessary for her to experience these fits of terror but that she would feel better as soon as she had felt all of the terror which was connected with the word under examination. All of this information was volunteered by Brown, the investigator studiously avoiding any leading question. Finally Miss Damon awakened comfortably and asked what was going on. Brown wrote "Tell." Tentatively, not knowing just what to tell, the investigator pointed to the words obtained. Miss Damon interestedly commented that the problem seemed to be one of correct spelling of French words. As she said this Brown wrote, "Look." This was pointed out to Miss Damon, and everybody began to study the words, but Brown was observed to write impatiently, "Look, look, look." Miss Damon's attention was directed to this, and she declared, "Why, she must mean look somewhere else; the dictionary of course!"

Page after page of the dictionary was thumbed over with innumerable conflicting answers from Brown, until Brown impatiently told the investigator "Wrong!" More care in asking questions disclosed that the dictionary had a word like Brown's word, and that the dictionary word, while it was the right word and correctly spelled, was still the wrong word because Brown had not spelled her word correctly, "Never learned to spell."

Instructed to write her word, Brown now wrote "*subitement*," then followed it by "*subsequemment*," succeeded by "*subsequent*." Asked if "*subsequent*" were right for the message, Brown made no reply, but Miss Damon again became intensely terrified and proceeded entirely to forget the last steps of the investigation. Quickly she recovered her poise and took up her remarks as if she had just awakened from a trance.

Brown was asked if she had seen any other word of significance in the dictionary. "Yes." "Your word?" "Yes. Spelled different." Here Miss Damon interrupted to ask the

investigator, "What does *he* [meaning Brown] mean?" This peculiar slip of the tongue was marked by sudden pallor and a rapid forgetting of the question. Brown, asked for the word seen in the dictionary, wrote "Niaise." When Miss Damon declared there was no such word, that she had never heard \_of such a word, Brown wrote, "D don't no it." Asked if this word in some form were in the automatic writing Brown had written, B answered, "Yes." Asked, "How learned?" Brown replied "Grandfather," and questioning disclosed the fact that *at the age of three* Miss Damon had been lost and that her grandfather had called her 'Niaise.' (Note Miss Damon's subsequent error in placing this episode at the age of four, as though this discussion had never occurred.) Brown then objected to further inquiries along this trend, explaining, "B afraid, D afraid of B telling." Miss Damon read this with amusement, denied that she had even a remote feeling of fear, and declared that she was now getting "terribly interested." B commented as Miss Damon spoke, "D don't no." As Miss Damon read this, she remarked, "Isn't *he* economical?" Immediately the investigator asked, "Brown, what do you think about Damon's last remark? Explain it." Brown wrote, "B is *she*. D says *he* because she means Da —. D don't no Da —B no Da —." Miss Damon followed this writing with intense interest, asked the secretary if she really had said "he." and then explained that "Da" was really the first two letters of Damon and that the three dashes signified, *m*, *o*, and *n*. As she completed this explanation, Brown threw pencils, paper, and books on the floor while Miss Damon gasped and in a horrified manner declared, "Brownie is having a temper tantrum," adding, "And she can't help it either."

No further information could be obtained from either Miss Damon or Brown, until Miss Damon pleadingly asked, "Please Brownie, get the information," to which Brown replied, "Suppose I fail?" In a challenging tone Miss Damon replied, "Brown, will we ever know?" Slowly Brown wrote, "Yes," while Miss Damon shrank back in her chair, hid her face, and began to cry. The investigator asked "When?" "Don't know." Taking a firm, aggressive stand, the investigator declared that too many hours had been spent already, that it was now four P.M., that the assistant had an evening appointment, as did the secretary, and that more reliance should be placed upon Erickson. At this moment the assistant stated that her appointment was for eight. Brown was asked to specify the time at which she would give the complete information. At this point Miss Damon recovered her poise and interest and expressed delight when Brown wrote seven-thirty, but when Miss Damon asked Brown to confirm this promise, Brown ignored her, writing, "E, ask, work."<sup>2</sup>

## **V. THE USE OF A MIRROR AS A "CRYSTAL" IN WHICH TO CALL UP VISUAL MEMORIES**

Asked how, Brown wrote "Crystal." Miss Damon explained that Brown must want her to do crystal-gazing, which she considered ridiculous since she did not know how, had only heard about it, and really could not do it. Brown replied, "Waiting."

Accordingly, a trance was induced, and using a mirror which reflected the ceiling, Miss Damon was instructed, "Brown wants you to look in that crystal and see." Almost as soon as she peered into the mirror, an expression of intense terror came over her face, and

she awakened sobbing, cowering in her chair, hiding her face, declaring that she was "awful, awful afraid," and begging piteously for help. Evidently the investigator's face reflected his alarm, but before he could say anything, Brown wrote, "It's all right, E. D just scared. Got to be. Then feel better. Just comfort." Tentatively the investigator made a few general soothing remarks, while Brown wrote, "Right," and Miss Damon piteously and tearfully reiterated her remarks, "I'm so scared, just awful scared."

In a short time Miss Damon recovered her poise and became quite apologetic about her "babyish" behavior. At the same time Brown was writing, "Better now; crystal."

The procedure was repeated with the same results except that this time before awakening, the subject repeatedly looked into the mirror, then away from it, taking a longer look each time and finally trying to say something but awakening to avoid speaking. A similar panic followed, lasting about 20 minutes, with Brown repeatedly reassuring the investigator that "D soon feel better now," "Everything all right," and "D getting ready to know but she don't no it."

Finally, when Miss Damon had composed herself, apologizing for her emotional outburst as before, Brown again wrote, "Crystal."

Another trance was induced, crystal-gazing again suggested, and this time although markedly agitated, Miss Damon reported in her trance that she was seeing her grandfather and that he was saying a word. As this report was given, Brown wrote, "B getting scared, awful scared," at which Miss Damon awoke and calmly and comfortably asked, "What time is it?" although the investigator's watch lay face up on the desk. In answer to her own question she glanced at the watch and gave the time correctly as six-thirty-five while Brown at the same moment wrote, "25 to 7." Miss Damon commented, "Seven must be the important number to Brown. I wonder why?" and looked to the investigator for an answer. While Miss Damon waited expectantly for a reply, Brown wrote:

D no everything 7:30.

D tell then—forgot long ago,  
B won't tell.

B won't let D no till 7:30.

At this moment Miss Damon asked irrelevantly, "Brownie, what is your first name?" and as Brown made no reply, Miss Damon in an agitated, excited, highly emotional fashion said, "He's gone crazy! He! Gosh!" Then quietly, in a subdued, puzzled way, Miss Damon asked Brown why she had said *he*. Brown answered, "D no soon; not ready yet." When Miss Damon sniffed at this answer, Brown wrote, "D don't believe because afraid." Miss Damon declared that she had been afraid a short time previously, but she had no sense of fear at all now, and her air was one of amusement. Brown commented, "D don't no. D wrong. D getting ready, soon ready. 7:30 right time; D have nuff time get ready." Following these remarks Miss Damon scoffed, declaring with amusement that

she was ready for anything and that she had no fear. Brown repeated her comments, finally interjecting, “B tell everybody at 7:30. D understand; nobody else.”

Suddenly Miss Damon’s dispute with Brown changed in character, and she became definitely apprehensive. Addressing Miss Damon, the investigator asked what was happening, to which Brown, startling Miss Damon, replied, “First D afraid vague, then afraid to learn something, then afraid she not no; now she afraid she going no. D afraid she going to no *it*, “ with the *it* written in heavy characters.

Miss Damon attempted to ridicule this explanation, but her general discomfort became increasingly apparent, and she began attacking the logic of the various statements, dropping the point and feebly returning to it.

Suddenly Miss Damon looked at the watch and remarked that it was seven-twelve. As she spoke, Brown wrote, “7:21,” and Miss Damon said excitedly, “Look, she reversed it.”

Brown was asked why, and her explanation was:

D thinks 7:07 [Damon disputed this].

E won’t [understand].

E will later.

No further explanation could be elicited.

While Miss Damon puzzled over this material, Brown wrote, “D will begin to remember at 7:23.”

Miss Damon: “That’s ridiculous. How can she say a thing like that? There’s nothing to remember.”

Brown: “B changing D mind.”

Miss Damon: “She is not, she is not, there is nothing to remember.”

Brown: “D don’t no. B changing D mind.”

Miss Damon: “That is ridiculous. As if I didn’t know if my mind was being changed.” Immediately she sobbed very hard but briefly, and then asked timidly, “Have I a reason to be scared?”

Brown: “Yes.”

Brown to investigator: “D cry, don’t mind, nothing help. D feel better.”

Miss Damon still crying, observed at seven-twenty-two and a half that "time is fast," recovered her poise, denied that there was anything to remember or that she was scared that she wouldn't remember, fluctuating from amusement to apprehensiveness.

At seven-twenty-seven and a half another intense panic developed, Miss Damon showing great terror, sobbing, cowering, declaring piteously that there was nothing to remember.

At seven-thirty B wrote slowly, much interrupted by Miss Damon's sobbing, "consequences of catching the muskrat to the little idiot," following which Miss Damon sobbed, shuddered, and cowered, begging piteously for help until seven-thirty-five. Exactly at that moment she recovered her poise and declared with startled interest, "I just remembered a story my grandfather told us when we were kids. A muskrat got into the pantry. Everyone chased it and knocked over all the things. I haven't got a thing to do with what my hand is doing.<sup>3</sup>

The investigator asked, 'Well, what does all this mean?'

Brown replied, 'D no, E not understand, told you before.'

Erickson: "You agreed to give the full message."

Miss Damon interrupting verbally: "Every subitement catalepsy the consequences of catching the muskrat to the little idiot."

Erickson: "That's it?"

Brown: "No."

Erickson: "What is it?"

Miss Damon: "Spelling bothering her; let's let her look in the dictionary." After many pages had been thumbed, many apparently at random,

Brown wrote, "Subsequemment, subsequent, subsequent."

Erickson: "The sentence is?"

Brown: "Every subsequent catalepsy consequences of catching the muskrat to the little idiot."

Erickson: "First sentence?"

Brown: "No."

Erickson: "Write first."

Brown: "Trance will my rat antrocine go?"

Miss Damon: "She can't spell, poor thing."

Brown: "Antrosine, osine."

Miss Damon: "Osine, osine, aussi."

Brown: "Aussi."

Erickson: "Two words? First one."

Brown: "Enter."

Erickson: "Rat?"

Brown: "Muskrat."

Erickson: "The real sentences."

Brown: "Trance, will my muskrat enter, also go. Every subsequent catalepsy the consequences of catching the muskrat to the little idiot."

Erickson: "I don't understand."

Brown: "D does."

Miss Damon's explanation: "I know what it means now, but I didn't then. It's all right there. Everything, except the words mean so much. Each one means different things. You see, I thought I was interested in catalepsy; it wasn't catalepsy but the rigidity. I was just frightened by the muskrat episode. You see, I was lost when I was four years old, [Brown interrupted to write three (cf. above), and Miss Damon accepted the correction, explaining that she probably remembered wrong, Brown commenting, "Right"] and I was awful scared. *Grandfather scolded me when I got home; he called me "petite niase,"* [Brown wrote *petite niase* and pointed the pencil to the phrase followed by the emphatic period] *and scolded me and said I had left the door open and I hadn't. And I was mad at him and afterward I would leave doors open to spite him, and I got my brother to do it too. Pantry door and icebox door. And grandfather laughed at me for getting lost, and then he told me, while I was still scared, about how he got lost and the muskrat got in the pantry and everything got upset, and I thought I did that. I was so scared, I got my grandfather's story about him mixed up with my getting lost.*" Here Brown wrote, "*Petite niase thinks she is her grandfather.*" "And I was so mad at grandfather, and so scared, and I left doors open to spite him, and I wondered if another muskrat would come." Again Brown wrote "*Petite niase* thinks she is her grandfather." This time Miss Damon became aware of the writing, read it, laughed, and said, "You remember when I called Brown *he*, and Brown wrote Da---? Well, I can explain that. Brown was telling you

that I didn't know who I was because my grandfather's name was David. Like my name, it begins with Da and has three more letters. And that's what Brown means when she says the little idiot (that word is really spelled *niaise*) thinks she is her grandfather.”<sup>4</sup>

Erickson: “Anything else, Miss Damon?”

Miss Damon: “No, that's all.”

Brown: “Yes.”

Noticing Brown's reply, Miss Damon flushed, then asked, “Brownie, has all that got anything to do with doors bothering me?”

Brown: “Yes, tell.”

Miss Damon then gave an account of her phobia, speaking of it consistently in the past tense. Following this, Miss Damon asked, “Has it anything to do with my not liking cats?”

Brown: “Yes.”

Miss Damon: “How?”

Brown: “Cats chase rats.

Miss Damon: “How I have rationalized my hatred of cats. I always thought it was because I saw a cat catch a baby robin, a tame baby robin. But really I didn't like cats because, well, *cats like rats*, and I didn't like rats.”

Then with an exclamation of delight, Miss Damon said, “Now I know why I always thought there was something wrong with the way I *liked* the white rats in the laboratory. When I played with them, I knew I didn't like them, but I always persuaded myself I did, and I did like them in an uncomfortable way. [Here Brown wrote, “D liked them so she wouldn't no the truth.”] I suppose rats are all right, but I'm not crazy about them any more.”

## SUMMARY

In brief, then, this is the story of a young woman who for a great many years had hidden phobic and compulsive impulses so discreetly that they had escaped the attention even of those who during those years had known her well. However, when by apparent chance she volunteered to be the subject for a demonstration of hypnotism, she found herself caught up in a swift stream of events which led in a few hours to the permanent elimination of her phobias and compulsions.

First she became fascinated by the phenomenon of induced hand levitation, and horrified to the verge of dissociation over induced catalepsy. Thereupon by means of automatic writing an effort was made to investigate the reasons for this extreme horror and fascination. This led at first to a series of acute anxiety states and then to the uncovering of a wholly unsuspected dual personality, a personality which linked with a childhood heroine from the literature of her youth. In a session lasting several hours repeated unsuccessful efforts were made to decipher the automatic writing that had been recorded by this second personality. Finally visual images were evoked by having the subject gaze into a mirror while under deep hypnosis. These images brought back to consciousness some episodes from the third year of the patient's life which clarified the writing and at the same time explained the phobias and compulsions, all of which served to effect a therapeutic result that has persisted over a period of years.

## **DISCUSSION**

The story presents challenging problems with regard to the workings of unconscious processes and the different technical approaches to them.

In one session several hours in duration repressed memories were recovered of a traumatic experience that had occurred at the age of three and had been completely forgotten.

These memories were recovered by the use of automatic writing. The original automatic script was almost unintelligible, only a few letters or syllables being recognizable (cf. illustration). The writing had been accompanied by an intense transient panic. The slow and laborious deciphering of this original script simultaneously solved the mystery of the neurosis itself.

Further use was made of automatic writing as a method of answering questions about the meaning of the original automatic writing. At the end visual images were evoked by having the subject, while under hypnosis, gaze into a mirror which reflected a blank ceiling.

During the course of these observations a wholly unsuspected dual personality was uncovered. It is possible that the presence of such a well-organized dual personality may be an essential precondition for the successful use of such devices as automatic drawing or writing, mirror gazing, and the like, since they would seem to depend upon a rather high degree of hysterical dissociation. It is possible also that the unsuspected presence of just such dual personalities, closely knit and completely segregated from the rest of the personality, may account for certain analytic defeats.

Psychoanalytically the automatic writing is of particular interest because it makes use of the same condensing and obscuring devices as those which occur in humor and in the language of dreams. In less extensive observations this has been noted in the past by Erickson (1937b), and the same fact was recently reported with regard to automatic drawing by

Erickson and Kubie (1938). It would seem therefore that in selected cases automatic drawing and automatic writing may offer an accessory method of approach to the unconscious, a method, furthermore, which depends upon principles of interpretation that are thoroughly familiar from dream analysis. In special circumstances these devices may have advantages over more customary technical procedures. For instance, one of us (L.S.K.) has found that in certain types of dreams they can be used to demonstrate vividly and objectively the latent content of the dreams without resort to any verbal interpretation. (Observations not yet reported.)

Of further technical interest is the utilization of mirror-gazing while under hypnosis. In the interplay between the two main personalities, and by means of questions asked by the investigator and answered in automatic writing by the second personality, much work had already been done to elucidate the meaning of some fragments of the original automatic script. Furthermore, it had become increasingly clear that the content latent behind this script was charged with intense and unbearable terror; but by these procedures alone it had not been possible to transcribe this unintelligible writing into clear, understandable prose or to recover the original experiences which underlay the panic. The preliminary steps seemed rather to establish a situation in which the subject gradually came to feel safe under the guardianship of her protective dual personality and of the investigator. As the subject became sufficiently reassured, she was able to face the sources of her terror and finally could recover the lost memories while gazing into a mirror under hypnosis. It is especially worthy of note that the suggestion that this device be tried was given by the second personality.

The use of hypnotism merits further discussion. Hypnotism is under such a cloud that the debt which psychoanalysis owes to it is often forgotten. Freud's earlier writings are full of allusions to the various phenomena of hypnotism, some of which will be quoted in another connection below. As the years went on, however, all reference to the problems with which these phenomena confront us disappeared until the papers on *Group Psychology and the Analysis of the Ego* (Freud, 1921), the German edition of which appeared in 1921 and the English translation in 1922. Here it became evident that the derogatory attitude toward hypnotism, which its therapeutic failures and its commercial exploitation had engendered in every serious scientist, had turned Freud's thoughts too from its scientific importance, even as an object of analytic study. (See the chapter, "The Group and the Primal Horde," pp. 95-100.) Yet in spite of his antipathy to the use of hypnotism, on page 100 he says of hypnosis that it "is solidly founded upon a previous position which has survived in the unconscious from the early history of the human family." The implication here is that hypnotic phenomena are universal and must be taken into consideration in all efforts to understand the neuroses. If this is true, then the study of hypnotic methods is a duty for psychoanalysts, and they must return to that fountainhead of original and dramatic unconscious material from which Freud himself derived his first impetus.

It is interesting furthermore to see that Anna Freud in her book *The Ego and the Mechanisms of Defense* (1937) subscribes to the traditional derogatory judgments against the use of hypnotic methods to elicit unconscious material. There she says (pp. 11-13)

that under hypnosis the revelation of the unconscious is achieved by a "total elimination" of the ego, which therefore takes no part in the therapeutic procedure but in the end throws off the influence of the physician and again represses the unconscious material which has been brought to light. She contrasts with this the process of free association, under which the ego is induced to "keep silent" only for interrupted fragments of time, so that the observer's attention is constantly oscillating between the elicitation of material during the period of ego acquiescence and direct investigation of the activities of the ego itself when it becomes resistant.

It should be obvious that there is no *a priori* reason why hypnotic investigations of the unconscious cannot be carried on in just this way. Nor is there any necessary reason why analytically informed investigators or therapists who in these days are using hypnotism should forcibly thrust upon their patients the material which has been gained from the unconscious under hypnosis, merely because in a more naive period before anything was understood about the forces of resistance the traditional hypnotist proceeded in that ruthless fashion. The lessons learned through psychoanalysis can be applied in the use of this allied method, and there is no more reason why hypnotic therapy should consist of an explanation of the patient's symptoms to the patient without regard to the attitude of the patient than that this should be the process of analysis. On the contrary, it is possible in the hypnotic as in the waking state to secure information from the unconscious and then so to motivate the total personality that there will be an increasing interplay of conscious and unconscious aspects of the personality, so that the former gradually overcomes the resisting forces and acquires an understanding of the latter. Just as in analysis there can with practice be a full opportunity to delay, postpone, resist, and distort when necessary, and yet through this activity always bring the process nearer to a therapeutic goal.

In fact this process is well illustrated in the case under discussion, when, for instance, during the questioning of Brown Miss Damon suddenly interrupted, saying, "Every subitement catalepsy the consequences of catching the muskrat to the little idiot." This was a sudden and seemingly meaningless eruption of unconscious material into consciousness; yet in it a few important fragments of memory returned. By this "meaningless" verbalization Miss Damon participated on a conscious level but in a safe and partial fashion; thereby, however, she prepared herself for the more dangerous complete participation that occurred later. Thus it played a role identical with that of a dream which is only partially remembered and partially interpreted.

It is a clinical fact that the memories brought to light and the emotions discharged in this strange experience permanently relieved this young woman of a serious and rapidly increasing compulsive phobic state. The question may fairly be asked, however, whether the investigators are in a position to explain either the origin of the phobia or its resolution. Here perhaps it is best again to let the facts speak for themselves by reviewing the brief story as far as it is known.

For a short time a little girl of three believes she is lost, and while lost she gets into a state of intense terror. She is found again, or else finds her way home, and is greeted by a grandfather who scolds her, makes her feel guilty of leaving doors open, laughs at her,

humiliates her by calling her a little *niaise* (idiot), and finally tries to comfort her by telling her a story of an occasion in his own childhood when he was lost and a muskrat entered the house through an open door and got into a pantry, where it did a great deal of damage. At this the little girl is thrown into a state of increased terror, rage, anger, resentment and confusion. She mixes up her grandfather's story, and especially the tale of the muskrat, with her own experience. She feels as if it had happened to her *almost as though she were her grandfather*. She is angry, and out of spite and revenge she deliberately begins to leave doors open as he had done and as he had unjustly accused her of doing. Then she begins to fear that she will make a mistake, that she will leave doors open unwittingly and that something dreadful will come in. She begins compulsively to check up on the doors over and over again.

The identification of the child with her grandfather is presumably an example of that form of defense by identification with the aggressor that is described by Anna Freud in *The Ego and the Mechanisms of Defense* (1937).

Brown's statement was that when Miss Damon was "so scared" her grandfather should have explained fully all about her scare instead of "selfishly" telling her about his being scared too, because that meant that Damon's scare was so bad that it scared even grandfather, and besides "it added his scare to hers." Brown stated further that it was Damon who resented this and Damon who punished grandfather, although Brown confessed, "I helped a little, too. Damon thought of leaving the doors open and Damon did that, but I helped by getting Damon to get her brother to do it." Brown then explained the phobia as a direct consequence of this effort to punish the grandfather: Damon concluded that if she punished grandfather in this way, she would be hopelessly caught and unable to stop punishing him. Brown added, "It's just like she still believes that thing about a child crossing its eyes and not getting them uncrossed. That is, she believes it in a certain way, even though she knows it isn't true. That's what happened then."

Without attempting to settle the question of whether or not this is an adequate explanation of the phobia, one may feel justified in concluding that the first component of the motivating forces—namely, the revenge fantasy against the grandfather—was repressed and that the phobia remained obsessive until this original motive was recovered. From the point of view of analytical therapy it is particularly interesting to emphasize that the obsessional phobia was relieved merely by the recovery of these specific conditioning events and without any investigation or discharge of underlying patterns of instinctual cedipus relationships, castration anxiety, or the like.

Perhaps most surprising of all is the entirely unanticipated discovery of a dual personality in a young woman, who aside from the phobias described above had been living a relatively normal and well-adjusted life, and in whom the existence of such an alter ego had not even been suspected. Inevitably this raises the question of how frequent such unrecognized dual personalities may be, either as partial or as complete formations. If they exist, the complications which they must create in transference relationships in formal psychoanalytic therapy are of utmost significance and have never been

investigated. The mere possibility that they are more frequent than has been suspected demands the development of methods to test out their frequency and their significance.

One cannot say that the existence of such multiple personalities has not been suspected or mentioned in analytical writing; but its far-reaching significance seems to have been strangely overlooked, probably because of the disrepute into which all hypnotic phenomena have fallen because of their traditional association with commercialized hypnotism. Breuer and Freud (1936a) state, "that the splitting of consciousness, so striking in the familiar classical cases of double consciousness, exists rudimentarily in every hysteria, and that the tendency to dissociation, and with it the appearance of abnormal states of consciousness which we comprise as 'hypnoid,' are the basic phenomena of the neuroses." Further, "The existence of hypnoid states is the basis and determination of hysteria." Later they speak of the varying "facility" which people show toward "hypnoidal dissociation" as having an etiological relationship to the development of neuroses. On pages 174-175 Breuer, in his discussion of the Theoretical Material, describes a mechanism for this "splitting" that emphasizes its universality. On page 101 of his paper on General Remarks on Hysterical Attacks, Freud (1924) notes the role of multiple identifications and the fantastic and dramatic playing out of various roles in a hysterical patient. Nor have other observers limited the phenomena to these hysterical structures. Alexander in *The Psychoanalysis of the Total Personality* (1930), page 55, says:

Therefore, when I describe the superego as a person, and neurotic conflict as a struggle between different persons, I mean it, and regard the description as not just a figurative presentation.... Furthermore, in the study of the neuroses there is no lack of such visible manifestations of a divided personality. There are, for example, the true cases of dual personality—quite rare, to be sure. But the compulsion neurosis lacks few of the indubitable manifestations of a dual personality.

In view of these observations it is somewhat surprising that with all of the emphasis that has been laid on the varying roles of the analyst in the transference situation, so little has been said about the varying role of the patient who may present to the analyst not one personality but many.

This is not the place to discuss the mechanism by which such multiple personalities are established. Perhaps it can be said that no single case has been studied deeply enough to answer this question, despite the dramatic literary descriptions which exist in classical literature. Nor is there as yet sufficient evidence at hand to establish how many degrees of such multiple formations may exist. Another perplexing problem is presented by the relationship of the phenomenon to the process of repression. Clearly, in the production of multiple personality a process must occur in which certain psychological events are rendered unconscious. Is this the same process of repression as that with which we are familiar in the psychopathology of everyday life and in the neuroses? The topographical figure of speech which comes to mind is, that that which we ordinarily think of as "repression" is a repression downward, and that the psychological structure that results is a series of layers one upon another; whereas the "repression" which would result in a

multiple personality would be a vertical division of one personality into two more or less complete units, like the splitting of paramecium. Yet obviously, such a concept has purely diagrammatic value and may be misleading.

In fact one must ask whether one is justified in dismissing the possibility that all acts of repression involve the creation of a larval form of a secondary personality. In his only reference to the problem Freud, in his *Note on the Unconscious in Psychoanalysis* (1925), p. 25, refers briefly to the existence of alternating states of separate and independent systems of consciousness. After stressing the fact that they are *alternating* and not coexistent states of consciousness, Freud leaves the issue without discussing how this form of segregation of conscious material differs from that which occurs in ordinary repressions. Here again it would seem that we face a basic gap in psychoanalytical knowledge, a gap which exists at least partly because we have turned our backs so completely upon material available only through the experimental use of hypnosis. The states of conscious and unconscious mentation existing in cases of multiple personality *coexist* quite as truly as in simpler repressions.

In the case here under discussion, we are unable to explain the existence of the personality first known as Jane and later as Jane Brown. We are in a position to understand in some measure the function which this dual personality performed, but not how it came into being. The story makes it evident that under the impulse of terror and anger, the young woman had made a very deep and painful identification of herself with her grandfather. Somehow all of her later anxieties and compulsions stemmed from this momentous event. At some time she built up a protective companionate alter ego, Jane, who knew the things that she did not want to know, who was either unable or else forbidden to tell them to anyone but who exercised an almost continuously protective role toward the patient herself. This was evidenced on innumerable occasions during the course of the sessions described in this report, and is in striking contrast to the destructive or malicious alternative personality which has more frequently been described in the literature (Prince, 1908).

The "Sally" type of personality, described by Morton Prince, often seems to glory in a sense of power but by adroit maneuvering can be made to demonstrate this power in the interests of therapy by compelling the other personality to accept unconscious data which it is trying to reject. In the present case the disagreements between the two personalities—that is, the abuse, the epithets, the supercilious arrogance, the sulking, the apologies—appear to have been sham battles by means of which the one manipulated the other. The evidence for this is given in the following scrawled statement by Brown: "D need help; D not no [know] D need help. B must help D. E must help D. D not no so got to be made to take help. Got to give help when she not no so she take it. D not no right thing to do. D do wrong thing. B no right thing. B can't tell D; B got to make D do right thing the best way B no how." This explanation is typical of many others and shows that this apparent internal warfare was a byproduct of the clumsy efforts of Brown to guide Miss Damon toward an understanding of matters that Brown understood but could not communicate directly. Even the anger Brown showed against Miss Damon seemed to serve the same purpose of impressing on Damon the seriousness of the whole matter.

Similarly, the occasional impatient abuse of the investigator was like the anger of a child who impatiently tells an adult that it has explained everything when the whole matter remains incomprehensible to the adult.

The apparent "impishness" does not seem to be an expression of Brown's real attitude, which was one of deadly seriousness and concern, of worry and anxiety, which she seemed to mask from herself, from the investigator, and especially from Miss Damon in order to prevent Miss Damon from sensing her anxiety. It was particularly when Miss Damon became alarmed that Brown went off on some irrelevant tangent, inducing laughter on the part of the investigator and his assistants. That Brown herself was also afraid is shown in her statement, "E not hurt. E can do it. E not afraid. E won't be afraid. D afraid; B afraid so let E do it."

The ambiguities of the responses, and the insistent demand of Brown for an absolutely right question before she could answer, is a characteristic and at the same time a puzzling phenomenon. It was as though she could not tell her story outright but could only betray it, as we have said, like the schoolboy who dares not tell on the school bully, but can betray him indirectly if asked the correct question. To this end much of the seemingly irrelevant material turns out on close inspection to have been highly relevant, because it betrayed cues which were evident to Brown but not to the investigator until the whole story was made clear. It was for this reason that the investigator seemed to Brown to be so intolerably stupid.

A detailed study of multiple personalities might shed much new light on the problem of anxiety: how anxiety is distributed between the various personalities, what different forms anxiety may take in each, how this correlates with special traits of each.

The material from this case justifies only a few comments at this time. In the first place it is clear that the subject herself suffered from two types of fear. There was the initial horror state which overcame her when the hypnotically induced catalepsy reproduced in her the terror originally experienced when she was lost and when her grandfather told her the story of the muskrat. In her catalepsy this old fear recurred as a state of paralyzing panic without phobic distortions or projections but with characteristic bodily immobility. Against this she originally defended herself by a partial dissociation and an attempted identification with her grandfather. However, this had served only to plunge her into deeper waters when the grandfather told the story of his own fears. The relationship of this type of experience to the formation of the second personality is something about which we are in a position only to speculate.

The second type of fear from which Miss Damon suffered occurred whenever disturbing unconscious material suddenly threatened to breakthrough the barriers into conscious expression. She dramatized this type of fear more freely than the other, with obvious vasomotor disturbances and with evidences of shame and embarrassment as well as of fear. Such anxiety is familiar of course from clinical analytical experience and from Freud's descriptions; but its demonstration in the interplay between these two personalities was particularly clear.

The protecting Brown, however, was also not immune to fear. She showed momentary anxiety about looking too closely at the visual images that were called up in the mirror. She was afraid she would see something too horrible to endure, and frequently she made use of euphemism, ambiguities, and circumlocutions of all sorts to escape dealing directly with a frightening topic. She seemed to know that the investigator could name the “awful thing” without experiencing a dread similar to her own. Thus she said, “E not hurt. E can do it. E not afraid. E won’t be afraid. D afraid. B afraid. So let E do it.” It is not easy to say how much of Brown’s fear was for her own safety and how much for Miss Damon’s.

A word of further explanation is necessary to clarify the peculiar and confusing way in which the subject first counted out the positions of the words in the sentences. After the sentences were fully deciphered, it was possible completely to explain the counts:

Erickson: “The real sentences?”

Brown: “Trance, will my muskrat enter, also go. Every subsequent catalepsy the consequences of catching the muskrat to the little idiot.”

<i>Word</i>	<i>Position</i>	<i>Sentence</i>
Trance	1	1
Will	2	1
My	3	1
<i>Word</i>	<i>Position</i>	<i>Sentence</i>
Catalepsy	10	1 and 2 together.
Catalepsy	11	1 and 2 together, if <i>muskrat</i> is counted as two words.
Catalepsy	12	1 and 2 together, if <i>also</i> and <i>muskrat</i> are each counted as two
Every	8	1 and 2 together.
Every	9	1 and 2 together, if <i>muskrat</i> is counted as two words.
Every	10	1 and 2 together, if <i>also</i> and <i>muskrat</i> are each counted as two
Ever	13	After the following sequence: “Trance, will, my, muskrat, musk, rat, enter, also, all, so, go, every, ever.”
Ever	14	After the following sequence: “Trance, will, my, muskrat, musk, rat, enter, also, all, so, go, every, eve, ever.”

*Catalepsy* could have been given different positions, but the subject later explained that it had not occurred to her to split and reduplicate the words in this way until after she had reached the word *ever*, and then it was too late to go back to the word *catalepsy*.

This fragmentation of automatic words and sentences is strictly comparable to the fragmentation of the automatic drawings described in another paper of Erickson and Kubie (1938); instead of being counted as parts of a sentence, the words are counted purely as syllabic units with only a numerical relation to one another. The task of resolving this deliberately misleading system of counting was tremendously difficult.

<sup>1</sup>This is a frequent trick in automatic writing and is one reason why it is not sufficient just to read automatic writing, and why one must watch it as it is being written. Adequate objective records therefore could be made only by use of a motion picture. Brown's explanation of the reverse writing was, "D no [know] question. D read answer. D thinks she understands. E see writing. E no real answer. D don't. That way D not afraid."

<sup>2</sup>Here Brown specified the exact time at which full insight would be achieved. It is often found to be desirable to ask subjects to specify the hour at which they will understand something, urging them not to set this hour at either too immediate or too remote a time. This seems to give them a definite task and goal and to relieve them of the difficulty of making up their minds in the final moment of decision as to when to expect insight. Thus it gives them ample opportunity to prepare for that insight. Not infrequently analyses are brought to conclusion in a manner comparable to this when the analyst arbitrarily sets a date for the termination of the treatment.

<sup>3</sup>An explanation of the various times alluded to here is necessary. (1) Brown promised to tell everybody at 7:30. (2) Shortly thereafter Miss Damon mentioned that it was 7:12, while Brown wrote 7:21, at which Miss Damon remarked, "Look, she reversed it," and Brown immediately replied, "Damon thinks 7:07." This was promptly disputed by Damon. (3) Brown then remarked, "E won't [understand]. E will later." This was followed by the statement, "Damon will begin to remember at 7:23." (4) At 7:22 1/2 Damon remarked more or less casually, "Time is fast," but at 7:27 1/2 Damon developed a panic. (5) At 7:30 Brown wrote the significant material, of which Damon remained unaware until exactly 7:35. The explanation of these events is as follows: Miss Damon glanced at a watch which was face up on the desk and read the time as 7:12, Brown wrote these digits but in doing so reversed the last two digits, thereby directing attention to the minutes. Miss Damon remarked, "Look, she reversed it," at which Brown said, "Damon thinks 7:07," and then promptly declared that the investigator wouldn't understand then but would later on. Now it must be noted that 7:07 is exactly five minutes less than 7:12. Furthermore, the promise was made that at 7:23 Damon would begin to remember; but at almost that time the only thing that occurred was the casual remark that "time is fast." At 7:27 1/2, however, a panic ensued, apparently five minutes late. At 7:30, actually in accord with the promise "to tell all," the full material was written; but again Damon remained unaware of it until 7:35. When the investigator later asked Brown, "Why didn't you keep your 7:30 promise?" her remark was "Did-my watch." Checking Damon's watch, it was found to be exactly five minutes slower than that on the table, and as this was being noted, Brown's hand moved up to point to the 7:07 on the written page. From there it slid over to "E won't. E will later."

<sup>4</sup>Brown's persistency here is noteworthy. Twice Brown brought Damon back to the story by writing, "Petite niase thinks she is her grandfather," apparently in order to compel Damon to keep to this important issue.

# **The Clinical Discovery of a Dual Personality**

Milton H. Erickson

Unpublished manuscript, circa 1940s.

The clinical phenomenon of a dual personality constitutes an inexplicable form of personality construction. It consists of the coexistence within the same person of two separate and distinct personalities. Although this phenomenon has been known for over 60 years, and despite its marked importance as an approach to the many problems of personality construction, it is still the same unsolved problem it was when first reported. Azam in 1876, Mitchell in 1888, Prince, Sidis and Goodhart, and Janet about the beginning of this century, and Kubie and myself only recently have recorded such cases in the literature. The interest and significance of these studies and the wealth of their contributions to psychological and psychiatric understandings are easily appreciated. Yet, despite the importance that has been readily accorded to these reports, especially to Morton Prince's famous study of the various coexistent personalities in Miss Beauchamp, there has been a persistent, serious oversight and neglect of the dual or multiple personality as a profitable field of inquiry regarding the nature and structure of the human personality. Also, there has been no active realization of the fact that the multiple personality offers an exceptional opportunity for a laboratory analysis of those elements entering into the formation of distinctive and separate personalities. Yet, the problem of personality—its development, organization, and structure—constitutes a question of central interest to both psychology and psychiatry.

Accordingly, in this preliminary report upon the clinical discovery of a dual personality, my purposes are several. Particularly do I wish to direct attention to the importance of as many as possible of the general considerations centering around this psychological phenomenon, and about which misunderstandings, false beliefs, and incorrect assumptions are most generally prevalent. Among these considerations are the significant questions concerning the actual incidence or frequency of multiple personalities, the possibilities for discovery, the clinical nature and character of multiple and secondary personalities, and especially the significant values of this clinical phenomenon as a research problem.

Finally, I wish to give an account of the various observations, clinical steps, and investigative procedures by which it became possible to discover in a young woman the existence of a second unknown and concealed personality. This discovery constituted a fact unsuspected by her ordinary personality, and she continued to remain unaware of it for approximately a year after its discovery. Then, only through being systematically and forcibly acquainted with the facts, did she realize the possibility of the truth.

Concerning the actual incidence or frequency of well-integrated, highly organized, distinctive multiple personalities coexistent within a single individual, no definitive

information is available in the literature. During the course of Prince's study of this problem, he expressed the belief that these personalities were not necessarily infrequent, but that probably it was the difficulty of discovery that made them apparently rare.

In my own experience with approximately 500 hypnotic subjects, which does not include the case to be reported today, I have found a total of four persons with well-developed, well-organized secondary personalities. In addition I have found three others with fairly well-integrated subpersonalities and a half-dozen more who showed separate but incomplete organization about certain aspects of the personality. In all these instances discovery was accidental, no systematic search was made, and so the actual frequency may be higher than indicated by my findings.

On the other hand, a large proportion of my hypnotic subjects constituted a highly selected group, chosen because of neurotic traits and personality disturbances. Hence the incidence found may be unduly high. At all events my findings do indicate that multiple personalities are not necessarily rare, even though no definitive conclusions can be offered concerning their actual frequency.

Serving to confirm my general experience in this connection is the trend of conceptual developments in personality study. Recently the tendency in psychology and psychiatry has been toward intensive studies of personality as a clinical problem meriting analysis rather than simple acceptance as an established fact. From these intensive studies, particularly those made by the psychoanalysts, has come a general and progressive realization that the human personality is characterized by infinite varieties and complexities of development and organization, and that it is not a simple limited unitary organization. It is, rather, to be regarded as having as complicated a structure, organization, and development as has the individual's experiential background. From this realization of the complexity of the structure of the personality there has developed the understanding of the possibility—and the actual probability—of separate and specific integrations within the total organization as a common characteristic. Particularly has this multiple concept of the personality been emphasized by Franz Alexander in his book *The Psychoanalysis of the Total Personality*, in which he declares emphatically that the human personality actually constitutes a collection of personalities. More recently in this regard Oberndorf has spoken of "that galaxy of personalities which constitute the individual." Finally, mention may be made that medical history is replete with instances of definite entities that were originally considered as rare and infrequent—if, indeed, actually existent, and not a manifestation of some other known entity. As we now know, these presumably unusual conditions needed only the adequate development of medical techniques to permit ready discovery and recognition, and such development probably is all that is lacking in relation to special forms of personality construction.

In relation to the question of the possibilities for discovering multiple personalities, one is impressed at once by certain attributes in common among the studies recorded in the literature. In all these cases the discovery was essentially an accident. Also, in all instances the discovery was total in character; that is, there was sudden immediate and full realization on the part of the investigator of the nature of his discovery.

Next, in each instance—and this is an item that has given rise to innumerable misapprehensions and false assumptions and beliefs—the discoverer was either employing hypnotic techniques at the time or was well experienced in the use of hypnosis. Hence, the case I am reporting today is of special interest since it was not, like my previous cases, an accidental discovery. Hypnosis was not employed, and my patient had never been hypnotized. However, I do feel that my experience with hypnosis made me more acutely aware of the striking contrasts and startling dissimilarities noted from time to time over a period of months in the general behavior of my patient. My belief is that the role of hypnosis in such discoveries is essentially indirect and coincidental. The hypnotic experience of learning to differentiate waking behavior from trance behavior in the same subject provides a general background of understanding by means of which one learns to recognize integration.

My interest in today's case was stimulated entirely by observing in a young woman various different sets and patterns of complete, well-integrated personality reactions and manifestations. Some of these patterns were familiar and easily recognized as hers; others were unfamiliar, seemed alien to her, and could not be fitted to her personality as ordinarily known. Hence, I would stress as an adequate measure of discovery for multiple personalities any procedure of systematic clinical observation that would permit the recognition of different sets and patterns of behavior integration and a determination of the interrelationships or lack of interrelationships between various organizations of behavior reactions.

The question of the clinical nature and character of multiple personalities is most controversial, much more so than the marked limitations of available information warrant. In this regard association with hypnosis has contributed to the development of both prejudices and mistaken beliefs and assumptions. In addition, as has been the case with hypnosis, there has been a marked confusion between the symptomatology of hysteria and the manifestations of multiple personalities. However, it is only fair to admit that much of the confusion between hysterical states and multiple personalities derives from the fact that, unfortunately, the literature does contain reports of hysterical states described as multiple personalities. Eventually such errors will be corrected.

Foremost among the various misunderstandings prevalent about multiple personalities is the belief that they are more or less unintentionally built up by the hypnotist and hence are artifacts. However, as is readily appreciated by anyone with adequate experience, hypnosis is not a miracle worker. It is possible to build up in the hypnotic subject pseudopersonalities, but these are extremely limited in character and extent of development, and they obviously are temporary, superimposed manifestations. In addition, such personality constructions are restricted by the nature and origin of their development to the hypnotic situation. In my own hypnotic work I have, as an experimental approach to personality problems, attempted over a period of years to build up new personalities in hypnotic subjects, only to realize the futility of such attempts. Furthermore, for a person adequately experienced in hypnosis there is no real likelihood of confusing the manifestations of the hypnotic trance with an actual secondary

personality. They are distinctly different despite the superficial resemblances that may cause persons limited in their knowledge of hypnosis to confuse the two.

Finally, one need only read with the utmost of critical attention such a study as Morton Prince's to realize the error in such beliefs. Accusations have frequently been made that his discovery was directly the result of hypnotic suggestion. Yet, every one of Prince's findings serves to emphasize the nonhypnotic character of the multiple personalities he discovered.

Another prevalent misapprehension is that multiple personalities represent essentially nothing more than a fugue state, an amnesiac state of hysterical origin, or a hysterical dissociation of a single complex (or even a constellation of complexes) into a limited, restricted, isolated, independent existence. However, careful, critical comparative studies of these conditions and of multiple personalities will disclose only apparent, not real similarities. Unfortunately, opportunity for such comparative study is as yet limited. Nevertheless, a careful analysis of the material actually available on these topics in the literature will enable the earnest student to reach a satisfactory realization that multiple personalities constitute something of a different character from special hysterical states.

Nor should there be a confusion of the condition of multiple personalities with those prolonged amnesiac states that result only in a loss of personal identity and a new organization of the individual's life. In such amnesic states the personality as such remains constant, and the general pattern of personality reactions persists. The only significant difference is the loss of conscious memory—only the memory—of the experiential past. However, it is possible for a dual personality to behave in a fashion wholly suggestive of only a simple major amnesic state. In this connection I have found that by cautious, tentative, and deliberate experimental measures it is possible to reverse the role of dominance. That is, by appropriate procedures it is possible to make the secondary personality actually the primary, dominant personality. When this is done, I have found that the secondary personality becomes dominant and loses its knowledge of the actual experiential background of the originally dominant personality, which in turn acquires all the true characteristics of the secondary personality. However, I have not yet dared to do much investigative work in this direction.

Another serious misapprehension is the common but mistaken belief that multiple personalities can occur only in highly neurotic persons and that the secondary personalities are necessarily destructive and vicious in character. My experience is contrary to this belief. Of the four instances I have discovered, two of the individuals were neurotic, one seriously so, and in both of these the secondary personalities were decidedly destructive in character. However, in both of these cases the undesirable behavior was directed exclusively against the ordinary personality and not, as in the fictional account of Dr. Jekyll and Mr. Hyde, directed against society.

The other two persons, well known by competent psychiatrists, are regarded as well integrated and well adjusted, and their secondary personalities are definitely of a helpful and protective character in all their relationships with the primary personality.

Today's case represents a third type of relationship between the two personalities. As originally discovered, the secondary personality wished the primary personality well, was willing to be of assistance to that personality, but was often either markedly indifferent to or highly impatient with, the primary personality in specific situations. On occasion the secondary personality would declare emphatically that the ordinary personality was "silly," "stubborn," and "lacking in good sense." Hence, no absolute rule of thumb is warranted in describing the interrelationships that exist between multiple personalities.

To proceed with the question of what actually constitutes the clinical nature of the dual or multiple personality is a most unsatisfactory task. One must make the simple, dogmatic, and not satisfactorily informative statement that the person with a dual personality actually possesses two separate, distinct, independent personalities. Each of these personalities derives from a single, total experiential background that serves each of the personalities in a markedly different fashion. The dominant, ordinary, or primary personality has the richer background of reality experience, and nearly all contacts with reality belong to it. The secondary personality, however, has the richer background of intellectual and emotional knowledge commonly held by passive, observant, nonparticipants. Thus, there is a dominant personality that has actively participated and shared in the major portion of all contacts with reality; out of this experience a personality complete with its various attributes is derived. The second personality, however, except for a limited number of reality contacts unknown to the other personality, has usually not shared actively to the same significant degree in reality contacts and has largely only observed reality in a passive fashion. For the secondary personality the experiential background is largely a matter of intellectual and emotional understandings acquired passively through the proxy constituted unwittingly by the primary personality. Out of this background of chiefly passive experience the secondary personality, also complete with its various attributes, is derived.

When direct comparison of one personality with the other is made, the question is not one of the completeness or the incompleteness of the two personalities, as is so commonly believed. Rather, it is entirely a question of the totally different uses and interrelationships established for the various items in the total experiential background. To appreciate these facts one needs prolonged and instructive contact with a dual personality.

Of particular interest in relation to the nature of the dual personality are certain primary characteristics. First of all, the ordinary personality is totally unaware of the secondary personality. Even when confronted with adequate proof, there is a marked tendency to reject such proof as pure invention or as having some other explanation. For example, take the case I am reporting today. When Ellen, the primary personality, was presented with one proof after another, she rejected them as fabrications or, when the truth could not be denied, as inexplicably acquired knowledge on my part. When Mary, the other personality, was asked about this, she replied with amusement, "Oh, Ellen is awfully upset about finding out about me. She thinks you're just lying." Then Mary added, apologetically, "I hope you're not offended by Ellen. She just can't believe the truth."

A second characteristic, apparent in the above quotation, is that the second personality tends to know all about the first personality, or, if such knowledge is lacking, has ready access to it. For example, I asked Mary the name of a new acquaintance of Ellen's. She replied, "I wasn't paying attention when they were introduced, but if you need the name, I can get it from Ellen." However, certain items of information of a minor type are not available to the second personality. For example, in reply to one question Mary answered, "I wasn't there when Ellen put that pencil away, and now I don't know how to find out from her. You'll have to ask her."

Yet, immediately afterward Ellen could give the desired information. Prompt questioning of Mary elicited the reply, "Oh, I listened in when she told you, so I know now. I didn't before she told you, and I couldn't find out because I didn't know where to look in her mind."

Another item concerns the matter of dominance by the primary personality, which has already been mentioned and which will be illustrated later.

In relation to the potentialities of the multiple personality as a research problem, I wish to stress the opportunity it provides for a laboratory approach to the task of identifying and analyzing the various elements that enter into the development of distinctive and markedly different personalities. This value becomes particularly apparent when it is realized that the person with dual or multiple personalities must necessarily have constructed them out of a single experiential background. Hence, any differences in the personalities constructed must reflect differing uses, differing interrelationships, and differing qualities of activeness or passiveness for the same items in this experiential background. Thus there is opened the possibility of studying within a single experiential setting diverse developments in these direct relationships.

Having made this survey of an exceedingly important problem in personality research, a problem that has remained essentially undeveloped since its recognition 60 years ago, we may now turn to a direct consideration of my patient.

Ellen is an attractive, capable, and intelligent 24-year-old woman who has held several secretarial positions, with promotions leading to her present position as secretary in a university office. Despite her general capability she consistently gave the impression of being extremely shy, timid, fearful, withdrawn, self-conscious, and easily embarrassed. She had no friends, avoided all possible social contacts, and seemed to be incapable either of making or of receiving social advances. She was repeatedly described as cold, haughty, sullen, superior, and disagreeable.

In her work situation she was dismally meek and unreasonably insecure despite her excellent ability, and she never dared to show any emotion. Her entire work performance could be completely disrupted for as long as 20 minutes by any startle situation such as the dropping of a book or the slamming of a door. In her necessary contacts with

students, she was insecure, uncertain, self-conscious, and fearful, and she seemed able to function only by rigid, precise attention to her duties.

In her general behavior she was forgetful and absentminded, exceedingly clumsy and jerky in her movements; she walked either with a long, awkward stride or a timid, hesitant step, and always seemed to be on the alert to avoid social contacts or to be most uncertain and confused about her exact whereabouts both in the university halls or on the street.

Arrangements were made to have her observed without her knowledge by capable psychiatrists, whose opinions can be summarized by the words, "insecure, unhappy, and extremely neurotic and unstable emotionally." The consensus was that she was seriously in need of psychotherapy.

Observation over a period of months served to confirm all of these neurotic symptoms and to add many others of a similar character. During that period of time, however, many observations were made of a totally different and inexplicable character. These all related to peculiar, usually momentary manifestations entirely at variance with, and alien to, her known behavior; they were always replaced immediately by her customary shrinking and uncertain behavior. These variations may best be listed in brief descriptive accounts. Of particular import was the fact that these moments, however brief, served to effect a serious disruption of her work, and each time after their occurrence she was observed to go through what seemed to be a process of mental reorientation in order to resume her usual activities. Following are a dozen of these manifestations:

1. Brief periods of reverie and self-absorption during which she remained unresponsive to all stimuli despite the alert and highly interested look on her face.
2. Marked change from her hesitant or awkward gait to a casual, easy, graceful walk.
3. Failure to recognize individuals entering her office, and responding to them with a coldly critical gaze or a totally indifferent stare of curious appraisal.
4. The extreme and awkward care with which she would laboriously arrange the objects on her desk, and then, a moment later, she would disarrange them with one easy, graceful movement, and not discover this fact for some time.
5. Marked instances of disorientation; in particular, complete bewilderment at finding herself in an adjacent office or at the other end of the university hall with no understanding of how or why she happened to get there.
6. A direct approach to a fellow worker, staring in a curious, intent fashion, and then turning away, later to deny emphatically that she had seen that person on the previous occasion.

7. Frequent failure not only to recognize acquaintances but also to acknowledge their direct greetings, later denying emphatically that she had even encountered them.
8. The extreme care with which she would prepare to do something and but a moment later, with a facial expression of curious amusement, nullify that preparation. Thus, she would carefully put a letter in her purse to take home, but before leaving the office, she would remove the letter and put it in some place of concealment, only to search worriedly the next day, while expressing aloud to herself the certainty that she really must have put that letter in her purse.
9. The extreme ease with which she became lost either in the university buildings or in the city, necessitating constant effort on her part to keep in touch with her whereabouts.
10. The frequency with which she remained totally unaware of events occurring in the office, such as the entrance of students and the conversation of others, and the sincerity with which she would disclaim the actuality of these occurrences.
11. The discovery on her part as well as mine that her shorthand notebook frequently contained writings, scribblings, and drawings that she insistently denied doing, yet I knew them to be hers since I had often seen her doing them in a state of reverie.
12. Finally, as she became better acquainted with me, the appearance on the desk assigned to me in that university office of curious cryptic notes and drawings similar to those in her notebook, which both she and her superior disowned most disinterestedly.

As these observations were made repeatedly, I became interested in their interrelationships and also in their bearing upon the woman's general pattern of behavior. Soon I became convinced that there was some unusual form of dissociation involved. With the advent of the cryptic writings and drawings, an opportunity to investigate developed. Finding on my table a note written in a juvenile script containing a comment about a red hat, I concealed it. Several days later, apropos of nothing, I addressed the general inquiry to nobody in particular, "Was it a black hat?" and then, without awaiting any answer, absorbed myself in my work. After an interval of a few days I found on my desk another note that said, "No, red," in a similar juvenile script. In this manner I began a correspondence. Thus, upon finding a drawing or a note upon my desk, I would make some remark pertinent to it, but apparently silly, irrelevant, and meaningless. Within a few days I would find, concealed in my papers or on my desk, a reply bearing upon the previous note or drawing and my apparently meaningless comment.

When shown these notes and drawings, Ellen evinced only a polite interest. However, I soon began to discover that if when I found a note on my table, Ellen happened to be looking my way, there would appear momentarily on her face that peculiar alert, interested, and amused expression seen previously in different situations. I discovered further that Ellen was not aware that I had just picked up that note. After verifying these observations repeatedly and under varying conditions, the question arose as to what role Ellen played in this total situation despite her apparently complete unawareness of it.

This question led rapidly to the discovery that her unusual behavior constituted a separate, complete, and consistent general pattern never in evidence at the same time as Ellen's usual behavior. In other words, there were two separate and distinct patterns of general behavior that did not overlap but, rather, alternated in appearance.

Then one day I found on my desk a note that bore the name Mary Ann Peters. I concealed it immediately. Several days later, on my next visit to the university, I remarked casually to Ellen upon the frequency of double meanings in apparently simple remarks. I suggested that she listen carefully to what I was about to say, since it would have a double meaning, and I urged her strongly to be sure to understand that second meaning. I then remarked that one may describe someone as having the "*map* of Dublin—M.A.P.—on his face." Ellen listened intently but in obvious bewilderment, incapable of realizing that in spelling the word map I had actually given three initial letters. At the same time her hand was observed to pick up a pencil and to write, "Yes, Mary understand," in the script made familiar by the notes left on my table. This name "Mary" was later found to derive from the heroine of a novel read by Ellen in her childhood.

This was the first definitive evidence that there was a secondary personality, and upon the strength of it, arrangements were made with Dr. Lawrence S. Kubie to develop further investigative procedures. The details of our findings, however, belong to another paper and not to this preliminary report, which is intended only to introduce and focus attention upon a most important psychiatric topic. Suffice it to say that later we were able to establish full contact with the hitherto unknown personality, Mary, a well-poised, self-confident, extremely capable woman, free from Ellen's neuroticisms and markedly different in every way, even giving the impression of being several years older than Ellen.

Now, to summarize, I have stressed the importance of this entire problem of dual or multiple personalities, a problem that has confronted psychiatry for more than 60 years and is still unfortunately in the descriptive phase. I have briefly mentioned significant considerations bearing upon this type of phenomenon and have given a brief account of clinical observations that led to the discovery of a dual personality. My hope is that this account, even though a preliminary report to a more extensive study, will serve to dispel some of the mystery surrounding the entire problem and that it will also arouse sufficient interest to stir others to investigate and to study.

# **Findings on the Nature of the Personality Structures in Two Different Dual Personalities By Means of Projective and Psychometric Tests**

Milton H. Erickson and David Rapaport

Unpublished manuscript written with David Rapaport, circa 1940s.

Last year a report was given before this association of the clinical discovery of a dual personality in a young woman; that is, there existed in that young woman two independent personality structures. One of these personalities was found to be primary and dominant, while the other was found to be secondary and essentially passive, but capable of alternating with the primary personality at a certain level of personality functioning. In presenting this material particular emphasis was placed upon the fact that the discovery had been based essentially upon the relatively simple clinical procedure of observing various dissimilar and conflicting responses, reactions, and patterns of behavior in the young woman. It was found that she manifested at different times one or the other of two sets of reactions, which not only alternated with each other but which were often unrelated, opposed, and even alien to each other in their manifestations. Once these two distinct and separate sets of behavior responses were recognized, the further steps leading to the clinical recognition of a dual personality and the identification of two different personalities, each with its own individual patterns of behavior, were relatively direct procedures.

While such a clinical study is of interest and value, there is an imperative need to confirm, to disprove, or to demonstrate some better interpretation of its findings by investigative procedures more objective and controlled than is clinical observation. The complexity of the phenomenon of dual personality, and the fact that the many cases reported in the literature are all essentially clinical studies, makes the need for independent, controlled test-studies even more obvious.

Accordingly, in today's presentation we have two purposes. The first of these relates to the need for a more systematic and critically controlled study of the phenomenon of dual personality. The second purpose is that of developing more adequately the clinical findings presented last year. To these ends we now offer a report of the investigative findings on dual personality obtained under the controlled conditions of the testing situation and by means of standardized psychometric and projective test procedures. These tests were chosen because they compel responses to be essentially in terms of personality reactions, attitudes, and capacities; hence, they preclude significant predeterminations of detailed patterns of response, such as is possible in personality inventories and similar tests. Independently of this investigation, however, one form of personality inventory was used on several occasions over a period of 18 months, not only

to disclose possible differences between primary and secondary personalities, but also to determine the constancy of the responses made.

The selected tests, administered by Dr. Rapaport, were given to the dual personality upon whom I reported last year and to another dual personality previously reported in the literature by me.<sup>1</sup> The use of two people increased the extent of the study and secured comparative and confirmatory findings.

## **TESTS AND THE TEST SITUATION**

The tests employed in this study may be listed and described briefly as follows:

- (1) Rorschach Test. This is a well-known test in which 10 ink-blot pictures are shown to the subject. In response to the question "What might this be?" semidirected associations are obtained from the subject for each of the pictures. The formal characteristics of these responses can then be interpreted in the light of test experience and psychological theory. The test gives information about the relation of cognitive and emotional processes and permits a description of the personality and a diagnostic classification.
- (2) Szondi Test. This is a nonverbal, projective personality test in which the subject selects from six series of eight photographs each the picture most liked and most disliked. Each series shows a homosexual, an epileptic, a hysterical, a catatonic, a paranoiac, a depressive, a manic and a sadistic murderer. The choices thus made permit an interpretation of outstanding character trends of the subject and frequently an approach to the diagnostic category to which the subject belongs.
- (3) Thematic Apperception Test. This test consists of a series of pictures presenting various scenes. The subject is asked to tell what each scene represents, how it came about, and what the outcome will be. This test gives insight into the content of the subject's fantasies and emotional attitudes.
- (4) Babcock Deterioration Test. This test contains items similar to those of the Wells Memory Test and the Merrill-Terman Test. Simultaneously with the test a vocabulary test is given. By a computation based on the assumption that vocabulary deteriorates less than other achievements, a measure of mental efficiency is obtained.
- (5) Bellevue Intelligence Test. This intelligence test was standardized on adults and consists of a 10 item-groups: comprehension, information, digit-span, arithmetic, similarities, picture arrangement, picture completion, block design, object assembly, and digit-symbol. The intelligence quotient is expressed in terms of percentiles, and the relation of the individual scores of the item groups is clinically meaningful.

- (6) Bernreuter Personality Inventory. This self-administered test contains 125 questions and is variously scored to measure neurotic tendencies, self-sufficiency, introversion-extroversion, dominance-submission, self-confidence, and sociability.

The conditions under which the tests were administered deserve mention. Neither of the two dual personalities was acquainted with Dr. Rapaport, nor did they know that a study of them was planned. Instead, they were introduced to Dr. Rapaport and immediately and arbitrarily inducted into the test situation. This surprise method excluded premeditated test response. I felt that the natural objection and resentment of the subjects toward such an arbitrary procedure would aid in eliciting unguarded, and hence all the more informative, personality reactions and attitudes.

The actual administration of the tests lasted over a period of several days and required a total of more than 24 hours of intensive work in the test situation. Every effort was made to keep the administration of each test under adequately controlled conditions and to secure informative comparisons and contrasts within individual test situations. The tests were administered in the case of Ellen and Mary to the primary personality first and in that of B and A to the secondary personality first.

## **THE SUBJECTS**

The subjects of this investigation are two women in their early twenties, both of whom are successfully employed and regarded by competent observers as decidedly capable and efficient. The one reported upon last year has the primary personality of Ellen and the secondary of Mary. The primary personality of the other is best known as B and her secondary as A.<sup>2</sup>

Ellen and Mary is looked upon by her friends as somewhat difficult, neurotic, and unstable in social adjustments, while B and A is regarded by her friends as decidedly well adjusted and socially able. In both instances, however, the secondary personalities are unknown except to a few selected persons.

## **TEST FINDINGS**

No attempt will be made to present test findings in full detail because of their extent, complexity, and often all too technical character. Instead they will be reserved for publication in the complete report: only a general summary of them is offered here. Before proceeding, however, I wish to interject two cautionary statements so as not to mislead you. First of all, time limitations have compelled us, for brevity and clarity of presentation, to sacrifice cautious, limited, and qualified statements in favor of general, comprehensive, and hence more dogmatic statements. Next, while Dr. Rapaport and I are essentially in agreement in this present interpretation of our data, we both realize that further study and analysis might necessitate revision and further elaboration of our conclusions. For this reason, despite our confidence in our present judgments, such further study is planned.

With these reservations the following general statements may be made:

First, although there were definite test similarities between the primary and secondary personalities of each of the two women, the degree and character of those similarities in the case of Ellen and Mary were not inconsistent with a distinct separateness or, in other words, with the individuality of those primary and secondary personalities. In the case of B and A this distinct separateness was less obvious, and only in view of the unusual consistency of test findings were the results here surprising. In summary, the tests of Ellen and Mary appeared to be comparable to those of two different persons with some similar character traits; those of B and A were comparable to those of a person in two different phases of life.

Second, there was a consistency throughout the tests of each personality within the single tests as well as from one test to the other.

Third, the differences in the test findings between the primary and secondary personalities were greater and the similarities less in the projective personality tests; in the intelligence tests the similarities prevailed and the differences were relatively insignificant.

Fourth, the analyses of the various test findings, which were made by Dr. Rapaport independently of the clinical facts and observations, are in accord with the clinical history of, and my own findings on, each of the various personalities. In brief, investigative findings by means of standardized test procedures, interpreted in accord with established principles, warranted the same general diagnostic and descriptive judgments as did prolonged clinical study.

The test findings concerning the personalities of Ellen and Mary and of B and A may be summarized as follows:

Both Ellen and Mary are neurotic and of a compulsive type. However, while Ellen appears to present a picture of an acute neurosis with features of compulsive doubting and feelings of insufficiency colored by the impulsiveness of an inhibited person, Mary presents the picture of a solution of a severe problem by the formation of a passive, retiring, unconcerned, self-sufficient character. While Ellen thinks in vague generalities and displays rather weak judgment, Mary has, in spite of her interest in extravagances, a ready grasp of the obvious and keen powers of judgment. Ellen shows a great amount of free-floating anxiety and is an intensive daydreamer, with some weak emotional adaptation to her surroundings. Mary is self-sufficient, displaying neither adaptation nor anxieties.

Ellen's I.Q. is 126 and her percentile score is 98, placing her in the superior intelligence group; Mary's I.Q. is 113 and her percentile score is 82, putting her into the bright-normal intelligence group. The scatter in the tests is strikingly similar, however, where intellectual maturity is of importance. For example, in conceptual problems Ellen is

decidedly superior to Mary, but where emotional stability is crucial for the performance, as in concentration and attention, Mary is the superior. Similarly, in general mental efficiency Ellen is superior, but in immediate memory Mary is the better.

B and A are essentially introversive. While the tests of A appear to indicate a rather well-balanced personality, B's test results are such as would be predicted if A were to lose her balance and suffer a neurotic break. The findings are somewhat similar to those that might be found in a neurosis of mixed obsessive and hysteriform symptoms.

In personality makeup, however, B and A are quite similar. They are both rich in fantasies; both are very able and have manifold interests; both reveal a strong striving to adapt themselves to their environment, and in this striving both reveal considerable intellectualization of their adaptations—in other words, quite a bit of unfree, cautious adaptation. Both are interested in fellow human beings to an unusually strong degree. There are, naturally, differences in the degree and even in the quality of these similarities. A's psychomotility is less vivid and more constructive than B's, whose fantasy has frequently a fabulatory touch. Both have manifold interests, although much more so for A; B's diversity of interests has a touch of flightiness. The striving toward adaptation is strong in both, but B is impulsive in spite of this, while A is pliant to an unusual degree. And both have an unusual interest in people, though B's interest is loaded with quite a bit of insecurity and even fear.

In spite of her difficulties B has more sense of detail than A, who has a rather strong tendency to generalize. In spite of this B, for all her sense for detail, reveals less common sense than does A in her generalizations. Correspondingly, the judgment and logic of B is uneven and undependable, while that of A is rather stable. In spite of these discrepancies the intelligence makeup of the two girls is still very similar, and compared with the average they are both very inclined to make generalizations making use of their unusually good natural endowment.

B's I. Q. is 139 and her percentile score is 99. The I. Q. of A is 136 and her percentile score is 99, so that both are in the very superior intelligence group. The tests are very similar in score distribution and verbalization, in only one item requiring concentration does B fall much below A, even though A took the test first. The efficiency indexes of the two personalities are strikingly parallel, but with those of A on a lower level.

## **CONCLUSIONS**

1. The testing of the two dual personalities appears to corroborate the fact that we deal here with a clinically unusual phenomenon. The two persons in question each appear to have organized their past experiences into two different patterns and to react alternatingly, now on the basis of one and now on the basis of the other pattern. These patterns differ more significantly for the one than for the other person. The reactions on the basis of these patterns are significantly different in the emotional sphere and much less so if the reaction in question is of a cognitive nature.

2. The test findings are in accord with the clinical histories. They appear to contradict the general assumption that the phenomenon of dual personality is a hysterical manifestation, since both these personalities were found to be rather of a compulsive-obsessional type. The findings appear rather to give weight to Oberndorf's assertion that co-conscious mentation is an obsessional disassociation phenomenon.

3. Although no explanatory account as to the genesis and nature of dual personality is offered here, it is hoped that the description of these phenomena of personality organization will contribute to the theory of personality organization in general.

## **RORSCHACH TEST**

### **Comparative report of the tests of B and A**

Test given to A Sept. 17, 8:35 P.M.; to B Sept. 18, 11:40 A.M.)

#### *I. Reaction time.*

There was no consistent relation between the reaction times of B and A. At times that of one, and at others that of the other, appeared to be the longer. In the third card, for instance, A took the test as first, had a reaction time of 40 seconds, and gave a rather weak response; B took the test as second, had a reaction time of 10 seconds, and gave a more elaborate and better response and an additional other response. No evidence can be thus derived from the reaction times that would speak against the phenomenon of double personality.

#### *II. Type of personalities.*

(a) A appears to be a rather healthy person, while B appears to be quite neurotic. The main indicators of this neurosis appear to be the impulsive color responses, the extremely low animal percentage, and the low Form plus percentage. The neurosis of B is a mixed one in which one would expect to find symptoms belonging to hysteriform as well as to psychastenic syndromes. The former should be prevalent, and as the movement responses are numerous, one would expect rather ideational and characterological than conversion symptoms.

(b) As to the personality makeup, however, B and A are quite similar. They both are rich in fantasies, are very able, and have manifold interests; both reveal a strong striving to adapt themselves to their environment, and in this striving both reveal considerable intellectualization of their adaptations—in other words, quite a bit of unfree, cautious adaptation. Both are interested in fellow humans to an unusually great degree. There are, naturally, differences in degree and even in quality in these similar features. A's psychomotility is less vivid and more constructive than B's, whose fantasy has frequently a fabulatory touch. It is true that both have manifold interests, but A much less than B, in whose diversity of interests there is a touch of flightiness. It is true that the striving toward adaptation is strong in both, but B is impulsive in spite of this, while A is pliant to an unusual degree. It is true that both have an unusual interest in fellow humans, but the interest of B is loaded with quite a bit of insecurity and even fear of humans. B's protocol

has quite a few anxiety indications, while A's has nearly none. However, both show an equal number of space responses, which in B's protocol ought to be interpreted as outwardly directed oppositional tendencies as well as doubts, while in A's protocol they ought to be interpreted as self-willedness and perhaps some doubt.

*3. Type of intelligence.* In spite of her difficulties, B has more sense for the obvious than A, who has a rather strong tendency to generalize. In spite of this B reveals with all her sense for the detail less common sense than does A in her generalizations.

Correspondingly, the judgment and logic of B is uneven and undependable, while that of A is rather stable. In spite of these discrepancies the intelligence makeup of the two women is still very similar, and compared with the average they are both very inclined to make generalizations, making use of their unusually good natural endowment.

## **SZONDI TEST**

### **Comparative report of the tests of B and A**

(Test given Sept. 17, 8:15 P.M. to A; Sept. 18, 11:20 A.M. to B)

#### I. Attitude toward the test.

Both women were very cooperative and apparently liked to take the test. Some uneasiness and anxiousness was, however, observed in the behavior of B.

#### II. Personality of B and A.

The manic column, which usually corresponds to the oral tendencies of the subjects, is the only one that is equal in B and A. Both women appeared to have a rather significant oral dependent tendency, although a part of this is channeled and controlled. A appears to be childish, energetic, somewhat aggressive, but not neurotic. B is full of ambivalences and of extremely strong anxieties, giving a decidedly neurotic picture, resembling neurasthenic-psychasthenic neuroses. B has a mood coloring that might be called depressive and a fantasy life that is extremely vivid and most probably full of the anxieties indicated above and of the ambivalence conflict as to her aggressions. A has a much more stable mood life and a vivid but balanced and most probably not morbid fantasy life.

## **BELLEVUE TEST**

### **Comparative report of tests given to B and A**

(Test given to A Sept. 17, 9:30 A.M.; to B Sept. 18, 4:30 P.M.)

1. B's verbal score was two points lower than that of A (73, 75). B's performance score was higher than that of A (80 and 74). The relation of the I.Q.s is similar:

	I.Q.			Percentile Score			Intee. group VP Total
	V	P	Total	V	P	Total	
A	133	134	136	99	99	99	very superior
B	131	142	139	99	99	99	very superior

It is hard to understand how the verbal average of A can be higher, even if slightly, than that of B. The scatter gives to this an answer inasmuch as the digits backward of B is significantly below her own level and also much lower than that of A. This should correspond with a general difficulty of concentration. Except for this one significant score, there are no significant differences either in verbalization or in scores in these two tests.

## **BABCOCK DETERIORATION TEST**

### **Comparative Report of Tests Given to B and A**

(Test given to B Sept. 19, 1940, 3:40 P.M., to A Sept. 19, 1940, 5:30 P.M.)

#### **ITEMS:**

	<b>A</b>	<b>B</b>
<i>Immediate memory for a story</i>	20	18
Symbol digit test	16.5	16.5
Immediate memory for digits forward	19	19
Immediate memory for digits backward	18	12
Speed of writing	16.5	9
Speed of tracing	12.5	14
Delayed memory for a story	21	17
Learning of paired associates	19.5	20.5
Memory span for sentences	19	20.5
 <i>Total</i>	<b>162</b>	<b>146.5</b>
 Vocabulary age	 20	 20
Total test score average	18	16.3
Learning score average	19.2	18
Motor score average	15.2	13.2
Repetition score average	18.7	17.2
 Deviations from Babcock's norms		
For the total average	+0.6	-1.1
For learning	+2.7	+1.5
Motor	-1.4	-3.4
Repetition	+2.4	+0.9

(a) The mental efficiency of B appears to be good with an especially good learning efficiency. Peculiarly, however, her motor efficiency is rather weak, and this is a sign she has in common with A, whose motor efficiency appears to be extremely poor. It is noteworthy that in the comparison of M and L we found similar interrelations. The general mental efficiency of A appears to be poor, which is most likely due to her extremely poor motor efficiency, while her learning efficiency is very good. In general one might say that the efficiency indicators of B and A run perfectly parallel, except that A's is on a quite lower level than that of B's. On this point there is a deviation from the findings of M and L,<sup>3</sup> where only the motor and immediate memory scores were parallel, while the learning scores were significantly deviating from each other.

(b) The five reaction times of the symbol digit test for B and A are as follows:

B	11.5	1.5	11.5	16	15.5
A	13	14	12	17	16

The parallelism of the scores' sequences, which might be interpreted as work or fatigue patterns of the women, is thus extremely similar.

(c) The handwriting of the two women does not appear to be different for the observer unschooled in graphology. It is peculiar also that A has a very long writing time while her speed of tracing is better than that of B. However, this could be easily explained by considering the fact that A hasn't had much experience in writing; in tracing, where experience counts less than security, she can do better.

## RORSCHACH TEST

### Comparative Report of the Tests of L and M

(Test of L given Sept. 16, 1940, 10 A.M.; test of M given Sept. 17, 1940, 9:30 A.M.)

#### I. Attitude to the Test.

Neither of the women liked the test. Both seemed to be puzzled by it. However, M gave more clear-cut expression of her dislike than did L.

L's *reaction times* have been fairly long (30.4 sec. average), ranging from 13 to 65 seconds. M's reaction times, however, have been extremely long (98.5 sec. average), ranging from 25 to 240 seconds. For the first one might suggest that M had a hard time finding other responses than did L, and even L took her time in order to weigh carefully what she should say and what to leave for M. It is true that they have only one response in common, and even the spaces chosen for the other responses are different. But closer investigation reveals quite a few facts that are not consistent with such an explanation: (1) both girls give a constricted protocol indicative of inhibited personalities, M more so than L. In such cases an elongation of the reaction time is a common fact. The measure of constriction in L and M compares favorably with the reaction time in their protocols. (2) As we will see below, the scoring shows a rather systematic difference in the spaces chosen by L and M, which could have been hard to produce by any conscious plan. (3) The answer occurring in both of the protocols is the most frequent Rorschach response. Its appearance in both protocols pleads for the genuineness of the differences.

#### II. Personality of L and M.

(1) Both women are neurotic, L significantly more so than M. Their neurosis is, however, rather of a compulsive type with psychasthenic features. In L the psychasthenic and compulsive doubt-features prevail. The doubts are directed against herself, taking the form of feelings of insufficiency and inhibitedness in spite of her impulsive ideas. M is rather passive (more than L) and evasive, interested in extravagancies, unusual things.

(2) L favors vague generalities and is lacking a sense of the obvious. M avoids generalizations and has a rather lucky grasp for the obvious, in spite of her interest in the unusual. Paradoxically, L, who lives (according to information) steadily exposed to community, shares the way of thinking of the community to a much lesser degree than M does. The same appears to be true for the keenness of logical judgment. L is here again decidedly weaker than M.

(3) M and L are both interested in fellow humans, but simultaneously both are shy and somewhat afraid of them. M is the one who is more interested and more withholding than the other.

(4) Both women are intelligent, but in the meantime quite stereotyped in their interests. M is the less stereotyped and more intelligent.

(5) L shows a great amount of free-floating anxiety, is a very strong daydreamer, but displays some, although very weak, affective adaptation. M is rather closed within herself, displaying neither adaptation nor anxieties.

(6) The two movement responses of L (as movement responses do in general) probably reveal some contents significant of this woman: (a) ". . . impression of pair of very large shoes walking in duck-fashion . . . actually the whole thing might be a gorilla." (b) ". . . I can vaguely outline a couple of fat people . . . or animals . . . they are apes . . . their faces turned back over their shoulders, holding onto a cliff." Two features of these responses should be especially remarkable: (a) in both the response starts with human beings which turn immediately into animals; (b) the character of these movements—namely, "walking in duck-fashion" and "holding onto a cliff"—should describe L herself.

## **SZONDI TEST**

### **Comparative Report of the Tests of L and M**

(Test of L given Sept. 16, 1940, 9:30 A.M.; test of M given Sept. 17, 1940, 9.A.M.)

#### *I. Attitude toward the test.*

Both women seemed to be somewhat reticent toward the test. Both commented that hardly any of the pictures appealed to them. While L commented frequently on this and on individual pictures, M was rather silent, and every choice took her a long time. When asked about her silence, she said: "I speak only if I have something to say.... This does not inspire conversation."

#### *II. Personality of L and M.*

(1) The number and distribution of choices in the catatonic column, which usually designate the narcissism and degree of withdrawal of the subject, represent the only area that is identical in M and L. It is the experience, however, that when a subject is retested

with this test, the catatonic column is the one most apt to remain unchanged. Thus, the tests relate to each other as if they were representing two sides of the same personality; these two tests have the same thing in common as the Rorschach tests, which were both constricted, including few responses, long reaction times, and, with few exceptions, only form-responses. The Szondi tests are also those of inhibited persons. In most of other respects, however, the two subjects give a quite different record.

(2) L appears to be severely neurotic, very impulsive, with strong anxieties, infantile in her sexuality in a manner that probably makes her ready to assert her womanhood by being ready for "passing affairs." To what actual behavior such a readiness in an inhibited person might lead is hard to foretell. M is practically within the range of the normal, although inhibited, and carrying a definite number of bottled-up anxieties.

(3) L is civilized and controls her aggressions, while M is aggressive but has something that could be called culture.

(4) L is an anal character (probably expulsive), with a very strong oral-dependent tendency. In M oral and anal tendencies appear to be rather channelized.

(5) L's empty epileptic column and M's two "most liked" epileptic choices refer probably to another interrelation of the two personalities, which is at present not clear to me. However, as similar interrelations occur in B and A, it might be that certain "epileptoid" trends have to do with the occurrence of such phenomena as that of L and M, B and A.

## **THEMATIC APPERCEPTION TEST**

### **Comparative Report of the Tests of L and M**

(Test of M given Sept. 17, 1940, 3:15 P.M.; test of L given Sept. 18, 1940, 8:45 A.M.)

#### *I. Attitude toward the test.*

On the surface both girls showed a rather agreeable reaction to the test. In fact, however, both attempted, and not without success, to disregard the test instructions.

#### *II. Formal characteristics of the fantasies.*

(1) Both subjects stated that they had once taken the test.

(2) M's fantasies can hardly be called such. Rather, they are descriptions, embellished mostly with some very matter-of-fact connecting story. Such an attitude would be consistent with her Rorschach test and is frequently found in inhibited but matter-of-fact normals, being concise and abrupt.

(3) L's fantasies could be called fantasies with some right. She gives stories, and these stories frequently even disregard the picture. These stories, however, very frequently are taken from tales or some history material and have a sarcastic, scoffing narrative—as if

she would demonstrate with her sarcasm, “You see, one can tell stories without committing oneself.”

(4) Peculiarly, however, in two fantasies (12th and 13th) M takes over the sarcastic, or the fantastic, trend of L’s narrative. This occurrence is striking and cannot be disregarded. Its explanation, however, is beyond the scope of the test material.

### III. *Contents of fantasies.*

#### (A) *M’s fantasies.*

(1) Concerning sex: they are dancing, she is uninterested ... will dance with someone else; a man is defending his sister against his mother; young woman is going to marry someone; the mother did not want her to marry; her husband died, she is crying ... does not want her to leave, she will go, they quarreled. A rather disinterested, neutral, somewhat scoffing attitude.

(2) Concerning parents: they appear very rarely in the fantasies. A disapproving, stern mother who is beating the father, scolding the daughter, and disapproving of the daughter’s plan of marriage.

(3) Aggression: a mean old man buried all his friends either actually or in imagination ... his departure will doubtless cause much rejoicing; woman strangles another woman, halfway, because the other was reading her mail; a man murdered, while drunk, his wife, he will go to prison. Self-directed: a prick with a needle results in poisoning and death; lack of money results in suicide.

#### (B) *L’s fantasies.*

(1) Dependency: Disappointed little girl weeping into her father’s ear—he consoles her; princess, sacrificed to a dragon, is saved by a noble prince; asks for a new dress from mother to go to her first ball.

(2) Concerning sex: man torn between duty and desire, between homely wife and beautiful mistress; the outcome is a mess; mother scolds the daughter, asks why she was out last night with Parsifal and not with Mike; she will marry P and always wish she would have married M; a maid comments: my goodness, the way they are carrying on there they ought to be ashamed of themselves ... at his age too—oh, well—there is no fool like an old fool; man slept with a girl, wishes he hadn’t, feels rejected, commits suicide, she wakes up and says: “Now, what did you do that for? Wasn’t it silly” —and she will find herself someone else. These fantasies are quite consistent with her psychosexual immaturity as characterized by the Szondi test.

(3) Parents: Father appears to be a consoling figure; the mother figures, however, are in steady quarrel with her.

(4) Toward herself: she describes herself as ineffectual, in a nightmare-like fear of remaining alone in the world, as disappointed and reaching out for help, as the princess who will be saved by the prince of dreams, as an orphan who will be cared for by the aunt. Concerning money: she is richly married and gives in depression time 10 dollars to his brother to get rid of him; she quarrels with her mother to get a new dress; a man is being hanged for having murdered a man for 2 dollars, he did it for hunger.

#### *IV. Comparative summary:*

While M is rather indifferent toward sex, L is rather full of strange erotic fantasies indicating her psychosexual immaturity. Neither of them has much interest in parents, but both agree in rejecting the mother figure. Aggressions play a significant role in both, but in L's fantasies they have a rather anal coloring. In one fantasy of M's similar motivation of suicide appears to be present. While M remains in these fantasies noncommittal concerning her attitude to herself, L describes herself as an ineffectual person in need of help, dependence, despaired. While M appears here again to be rather realistic, L is rather fantastic in her fantasies, but the fantasies are frequently borrowed from historical or literature sources.

## **BELLEVUE ADULT INTELLIGENCE SCALE**

### **Comparison of tests.**

(L, given Sept. 16, 1940, 1:35 P.M.; M, given Sept. 17, 1940, 11. A.M

#### *I. The numerical results*

<i>Scores</i>	<i>L</i>	<i>M</i>
<b>Intelligence Quotient</b>	<b>126</b>	<b>113</b>
<b>Percentile score:</b>	<b>98%</b>	<b>82%</b>
<b>Verbal I.Q.:</b>	<b>129</b>	<b>115</b>
<b>Percentile score:</b>	<b>99%</b>	<b>85%</b>
<b>Performance I.Q.,</b>	<b>119</b>	<b>109</b>
<b>Percentile score:</b>	<b>91%</b>	<b>73%</b>

These numerical results indicate that L has a higher I.Q. than M. L's total I.Q. is "superior," her verbal I.Q. "very superior," and her performance I.Q. on the borderline of "bright normal" and "superior." M's total I.Q. is "bright normal," and so is her verbal I.Q.; her performance I.Q., however, is only "high average."

It is obvious that the distribution of scores of L and M are strikingly parallel. There appears to be no qualitative difference between the two distributions. L and M are both somewhat weaker in performance items. Two possible conclusions could explain this fact. One would maintain that the formal intelligence structure of the two personalities does not differ much, because M achieved gradually but not completely the knowledge of L. The other explanation would maintain that the intelligence test shows that there are not

two intellects present, that the same intellect was measured under different conditions and with a different degree of cooperation on the side of the subject.

*II. Attitude toward the test:*

(1) Concerning the information items, M frequently declared (in 18 cases) that she did not know the answer but she could ask L. This was refused, and thus in the scattergram the information item was excluded. The verbal part of the I.Q. thus was computed taking 5/a of the sum of the other four item scores.

(2) In the comprehension and similarity items M assumed frequently a very naive attitude that was strikingly different from her other responses, and it was not quite obvious why she was able to give an informed and mature response to some questions, while others were answered in a perfectly childish way. While the similarities of orange and banana, coat and dress, dog and lion, eye and ear, etc., are answered on a high level—properly, just like L answered them—the wagon and bicycle similarity is explained by L “both vehicles,” and is explained by M, “both have wheels,” or the egg and seed similarity, by L, “they are the embryonic state, one of a chicken, the other of a plant,” and by M, “plant a seed—a plant grows; have an egg—a bird grows.” While L would mail the letter she finds sealed, stamped, and addressed, M would pick it up and put it down where people would not step on it. But, in a strikingly reversed way, L thinks that people should pay taxes because “each of us cannot run the country by himself, so by paying taxes those appointed can run it,” while according to M, payment of taxes “supports the government.” These and similar responses constitute a barely understandable set of interrelations. It is hard to understand, for instance, why M knows about the government, while she does not know anything about the nature of letters.

*III. Scatter.*

(a) Verbal item average for both girls is slightly better than performance item average.

(b) Among the verbal items the lowest scores for both girls are the comprehension and arithmetic score. The highest score in both is similarity—this in spite of the significantly lower scores of M.

(c) Among the performance items the highest score for both girls is the digit-symbol score. Peculiarly, however, while L’s lowest score is the picture completion (10), M’s picture completion score is fairly high (12); and her lowest item is the object assembly, which was the second lowest for L.

This scatter distribution shows extremely strong similarity in the intellectual makeup of the two women, except for the better concentration of M, shown in the picture completion. In spite of these similarities, however, the whole performance behavior and activity was strikingly different for the two women. These differences do not imply only formal behavior; they imply rather different attitudes to the test items and different approaches to them, which are very tangibly put down in a test record.

## BABCOCK DETERIORATION TEST

### Comparison of tests.

(L, given Sept. 16, 3:30 P.M.; M, given September 17, 1940, 4:10 P.M)

<i>ITEMS:</i>	M	L
Immediate memory for a story	14	19
Symbol digit test	16	16
Immediate memory for digits forward	14	18
Immediate memory for digits backward	19	19
Speed of writing	9.5	16
Speed of tracing	13	11
Delayed memory for a story	13	21
Learning of paired associates	8.5	13.5
Memory span for sentences	23	23
Total	130	165.5
Vocabulary age	15	18
Total test score average	14.4	17.4
Learning score average	12.9	17.4
Motor learning average	12.8	14.3
Repetition score average	18.6	20
<i>Deviations from Babcock's norms:</i>		
For the total average	-0.6	+1.4
For learning	-2.6	+1.4
Motor	-2.2	-1.7
Repetition	+4.9	+4.4

(a) The difference in scores would indicate that M's general mental efficiency is rather weak, her learning abilities extremely poor, and the motor efficiency of both women extremely poor. The learning score of M appears to be, however, quite contradictory to her whole performance in the different tests.

(b) The handwriting of the two women does not appear to me to be significantly different. M's handwriting of the sentence in 19.3 seconds seems to be a slow calligraphic writing, extremely similar to that of L.

(c) The symbol digit test has five rows of symbols, and they were measured as to performance time separately. While L's speed improves in the course of the work, M's speed drops.

(d) The paired associate learning is very weak in both cases.

(e) The speed of tracing of M is better than that of L.

<sup>1</sup>Erickson, M. H. & Kubie, L. S. The permanent relief of an obsessional phobia by means of communications with an unsuspected dual personality. *The Psychoanalytic Quarterly*, 1939, 7, 471-509.)

<sup>2</sup>Editor's Note: In the previous description of this dual personality in the paper "The permanent relief of an obsessional phobia by means of communications with an unsuspected dual personality," the primary personality B was known as Miss Damon and the secondary personality was known as Miss Brown.

<sup>3</sup>Editor's Note: This and other test reports designate Ellen as L and Mary as M

# A Clinical Note on a Word-Association Test

Milton H. Erickson

Reprinted with permission from *The Journal of Nervous and Mental Disease*, Nov., 1936, Vol. 84, No. 5.

The usefulness of the word-association test in detecting the presence of concealed or repressed memories is well recognized. Usually, however, the results obtained are indicative only of possible avenues for exploration, and it is customary to resort to other techniques to obtain more information. In the following account an instance is reported wherein the word-association test served not only to indicate the presence of a repressed or concealed memory, but also, upon repeated administrations of the test, to elicit, in one-word summaries, the entire sequence of events in the unhappy memory. The situation leading to this finding was as follows:

Experimental work was being done on the constancy of responses to the words of an association test in which lapse of time and hypnosis were employed as variants. The procedure was essentially to give the subject a carefully selected list of words in the normal waking state and then the next day to repeat the test with the subject in a deep hypnotic trance. Following this, at intervals of one to three days, the test was repeated in either the waking or the hypnotic state until it had been given seven times. One subject employed was a 25-year-old, single, white female. At the time of the first administration of the test, it was noted that the subject showed a very long reaction time to the stimulus word *stomach* and had shifted her position uneasily. It was thought immediately that this behavior indicated possibly a repressed complex, but before the test could be continued, the subject spontaneously explained that at the previous meal she had overeaten and still felt her stomach to be uncomfortably distended. No additional significance was attached to this matter, although it was noted that on subsequent administrations of the test she still showed a long reaction time and tended to shift her position uneasily. This continuance of her original behavior was considered to be possibly nothing more than a conditioning occasioned by the original setting, especially since the subject gave only casual explanations for her replies when questioned later and always listened to the word *stomach* with an amused smile. Unfortunately, no record was made of her rationalizations at the time, since no apparently unusual explanations were given.

Several months after the completion of the test, but before the data had been analyzed, this subject made a confidant of the author, explaining that several years previously she had had a love affair which had resulted in a pregnancy. As she related this story, she declared that her first intimation of this pregnancy had been "the enlargement of my abdomen" since her menstrual cycle was most irregular. This "worried me just terribly," and upon seeking medical aid she had been advised that she "was going to have a baby." This "made me awfully afraid," and she had decided to meet the situation "by having an

operation done. I was awfully sick afterward—I thought I was going to die. When I finally got well, I just forgot about it all, but during the last couple of weeks it's come back to me and I felt like talking about it to you." She could give no explanation of why she had revived that memory, nor was there any thought at the time that there could be any possible relationship between this story and her responses on the word-association test. Further, the subject had never had an opportunity to read her responses on the tests.

Subsequently, in analyzing the data obtained from the experimental procedure, the sequence of responses to the word *stomach* and the states in which they were obtained were found to be as follows:

<i>Response Word</i>	<i>Mental State</i>	<i>Reaction Time in Seconds</i>	<i>Day</i>
(1) Big	Hypnotic	6	Mon.
(2) Worried	Waking	5	Tues.
(3) Baby	Hypnotic	4	Fri.
(4) Afraid	Waking	6	Sat.
(5) Operation	Waking	6	Tues.
(6) Sick	Hypnotic	4	Wed.
(7) Forgotten	Waking	3	Sat.

The paralleling of the response words and the actual story is at once obvious. Consideration of the response words alone requires no imagination to construct the entire story. Almost identical terms were used in both instances and in the same sequence, despite the lapse of time intervening between the experimental and the personal situations and the absence of any conscious realization that there existed any relationship between the two situations. This verbal rigidity is suggestive of the emotional intensity of the problem and the need of adhering to a definite method of approach to it.

More remarkable, however, is the peculiar persistence manifested in the disclosure of the complex material during the experimental situation. The induction of a deep hypnotic trance was apparently without any effect upon her unconscious emotional problem. Neither did the intervention of nonexperimental days seem to modify the emotional needs aroused by the fortunate coincidence which occurred during the first test. One may conjecture that the initial setting of a gastric indiscretion resulting in abdominal distress and distension constituted a most favorable background for the revival of the originally repressed material. The nature of that setting permitted easy rationalization, thereby obviating any need for defense or disguise mechanisms. Thus, a train of associations was stimulated into action and was conditioned to a certain limited method of expression. In consequence, it manifested itself progressively at each properly offered opportunity. Evidently, to judge from the course of development of the personal situation, the strength of the emotions involved exercised a compelling force upon the subject, causing her to seek relief from her problem by confiding it to someone. She had done this in the experimental situation, but in such a fashion that only partial emotional satisfaction had been obtained. This relief had sufficed for a time, but finally, because of its inadequacy, the problem became acute, causing her to recall it consciously and to seek a more complete catharsis by confiding it again in a direct fashion to the same person.

# **Study of Hypnotically Induced Complexes By Means of the Luria Technique**

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and Milton H. Erickson<sup>1</sup>

Reprinted with permission from *The Journal of General Psychology*, 1934, Vol. 11, pp. 65-97.

## **INTRODUCTION**

Recently Luria (Lebedinski & Luria, 1929; Luria, 1929, 1930, 1932) has experimented with a technique which may be applied to the investigation of affective conflicts. This method<sup>2</sup> involves the association of higher central nervous system processes with a voluntary movement so that conflicts in the former are disclosed in the latter.

Experimentally the central processes are activated by the verbal stimuli of an association test, the subject being instructed to make a slight pressure with his preferred hand on a tambour simultaneously with every verbal response. If the verbal stimuli do not arouse affective conflicts, the voluntary pressures are regular in character, but if a conflict is aroused, the pressure curves become irregular. Luria explains this effect as follows:

Having trained a subject to associate a motor response of the preferred hand with every verbal response, thereby establishing a close functional relationship between them,<sup>3</sup> any word occurring to the subject which he does not give as a response will appear in the voluntary movement as a partial reaction. It is assumed here that the inhibition of the verbal response is associated with affect, i.e., the subject does not respond with the first word since some complex would be revealed. Also the pressure curve may lose its smooth regular character or, to follow the Luria terminology more closely, the normal, voluntary movement is disordinated or disorganized because stimuli which elicit responses possessing affect may also arouse larger amounts of excitation than stimuli eliciting nonaffective responses. This excitation tends to discharge itself immediately via the voluntary motor pathway. Luria has referred to this tendency as the "law of the catalytic action of the stimulus." This law appears to be a corollary of another, the "law of the decreased action of the functional barrier." The functional barrier is a cortical property. It regulates by inhibition the motor activities of the organism, giving them an integrated character. Affective excitation weakens the functional barrier, and hence the motor activities become disorganized. A third law is that of the "mobilization of inadequate masses of excitation." This seems to involve "neurodynamical perseveration." The excitation which accompanies the affect is not always discharged completely via the verbal response, hence some movements will persist in the preferred hand after the voluntary response. Under conditions of large amounts of excitation a further spread to other motor systems may occur—for example, disturbing respiration and/or causing involuntary movements of the non-preferred hand.<sup>4</sup>

It is not our purpose to review the numerous experiments reported by Luria upon which these so-called laws are based. We were interested primarily in the possibilities of the Luria technique for obtaining information about the affective conflicts of a subject and for its possible application to psychotic patients. For this purpose we repeated, as part of an exploratory procedure, one of his important experiments, that of the attempted induction of a conflict in a subject by means of hypnosis. Such a procedure affords the opportunity of examining a subject before, during, and after the establishment of a conflict.

To produce a conflict in a subject Luria fabricated a story of a reproachable act committed by the subject—an act which would be contrary to the subject's usual personality trends. A number of critical words were taken from this story and placed in a list of control words which were not specific to the story. The total list was presented in the setting of a free discrete association procedure. The subject was required to press with his preferred hand on a tambour with each verbal response. He was then hypnotized, and the story recounted to him. After this he was awakened and the combined word-association and motor-response method was repeated. Under hypnosis the conflict was removed. This was followed by a waking control session. If the theory and technique are valid, the critical words should show disordinated voluntary pressure curves as compared with those of the control words. This assumes, of course, that the suggested story was accepted by the subject, that a conflict was produced in him, and that it had been removed successfully. In addition to the voluntary pressure curves Luria recorded verbal reaction times and in some cases involuntary movements from the nonpreferred hand and respiration. All were recorded on an ordinary kymograph.

### **APPARATUS, TECHNIQUE, AND POPULATION**

This was the experiment<sup>5</sup> which we repeated with some modifications. Luria's list usually contained 20 to 30 words with six to nine "critical" words. We used 100 words, including 10 taken from the fictitious story, to avoid, if possible, perseveration effects and to give more control material. Furthermore, the "critical" words were separated by seven to ten control words, whereas Luria often placed two or three "critical" words together. In addition, hypnotic control experiments were introduced, and in some cases the control and the "complex" sessions were repeated to study the effects of hypnosis and of repetition per se. By way of definition, the term complex is used as referring to the story of a reproachable act committed by the subject intended to produce an affective disturbance or conflict in him.

Four male and eight female subjects between the ages of 20 to 30 years were used. This group consisted of four medical interns, two graduate students in psychology, two nurses, two occupational therapists, and two college graduates doing special work about the hospital. All were well-trained hypnotic subjects and fairly well known to us. None of them had any knowledge of the Luria theory or technique. We shall present in detail the complex, the experimental procedure, and the results on one subject. The results obtained on the other subjects will then be summarized.

## **DETAILED REPORT ON ONE SUBJECT**

The complex for the sample subject, a male aged 24, was narrated as an account of his personal experience, and an attempt was made to establish it as a falsification of memory. The story in summary form was as follows: One night, while visiting some friends, he met a girl to whom he was much attracted. During the conversation, attention was called to her new brown silk dress, and she explained that, although not able to afford it, she had bought the dress hoping to make a good appearance when applying for employment. He gave her a cigarette and lighted one also. While smoking, he noticed the smell of burning cloth occasioned by contact of his cigarette with the girl's dress. Unobtrusively he withdrew his hand, noting with relief that the girl had not yet noticed the accident and that she held her own cigarette above the burned hole. The girl soon became aware of the damage. She attributed it, however, to a spark from her own cigarette. He tried to take the blame by assuming the responsibility of having given her the cigarette, but the girl refused his apparent generosity. The next day, by which time he had summoned up enough courage to tell her the truth in order to save his self-respect, he found that she had left the city.

From this account ten words: *silk, dress, brown, cigarette, burned, hole, blame, damage, smell, self-respect*, were selected as "critical" words and placed as Nos. 7, 16, 28, 40, 49, 60, 68, 77, 88, and 98 in the list of words<sup>6</sup> (see Table 1).

In the experimental room the subject reclined on a chaise lounge and rested his fingertips on deep, large tambours, one on each side, the forearms being supported by the wide arms of the chaise lounge.<sup>7</sup> He was instructed to respond to the verbal stimuli of the association test with the first word which came to him and simultaneously with his response to make a downward pressure on the tambour with his preferred hand. Voluntary responses of the preferred hand and such involuntary movements of the nonpreferred hand as might occur, as well as thoracic respiration and verbal reaction time, were recorded on a special long-paper kymograph. The experimenter, seated out of the subject's view, gave the verbal stimuli, wrote down the verbal responses, and marked the verbal reaction time with a telegraph key. A practice series of 20 words, none of which appeared in the experimental list, was first administered in order to establish the association of verbal response with simultaneous voluntary movement of the preferred hand. The list of 100 words was then given in a *waking control session*. After this the subject was hypnotized and the procedure repeated. This was the *hypnotic control session*. At the next experimental period—usually the following day—the subject was hypnotized first, the complex story told to him, and the experiment performed during hypnosis. This constituted a *hypnotic complex session*. The subject was then awakened from the trance, and a *waking complex session* was held. After this the subject was rehypnotized and an attempt made to remove the conflict by giving him insight into the situation and permitting him to understand the falsity of the story. At a third period additional *hypnotic* and *waking control sessions* were held.

In this particular case two hypnotic controls instead of one were obtained after the complex was removed.<sup>8,9</sup> Also the complex was not removed in this subject for 24 hours. That night he slept poorly, awakened with a headache which persisted until the removal

of the complex in the afternoon, had no appetite, was resentful and antagonistic toward the hypnotist, and somewhat uncooperative toward additional hypnosis. He was unable to assign any reason for these manifestations. Throughout the day he gave away his cigarettes and apparently could not enjoy smoking. He rationalized his behavior by the statement that he "guessed" he was giving up the habit. We offer this as evidence that the attempt to induce the conflict produced a profound reaction in the subject.

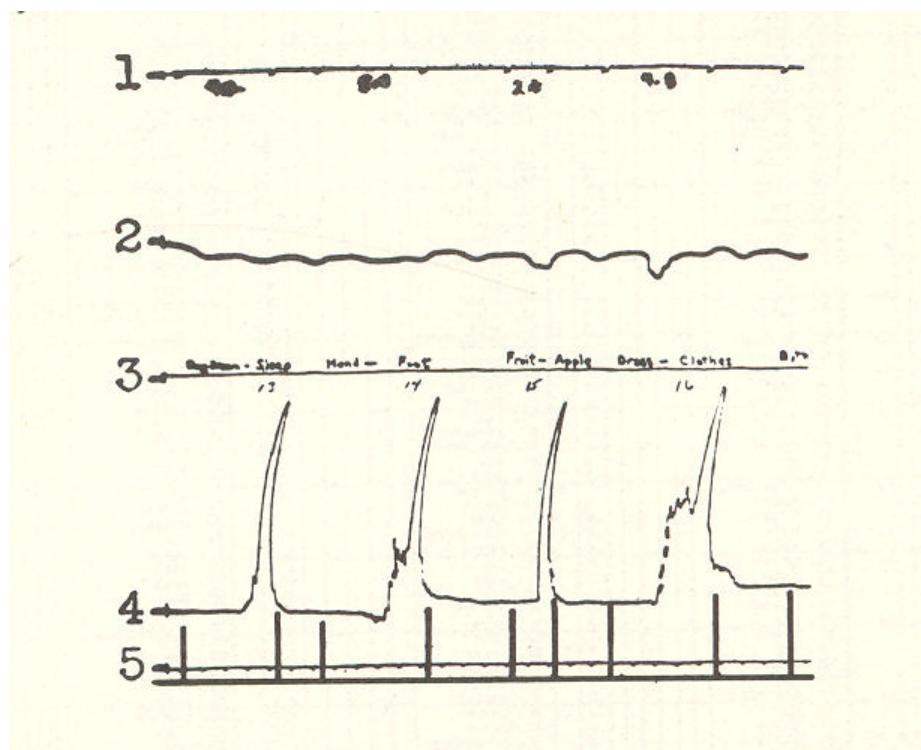
The results have been analyzed within each session and from session to session. Various aspects of change in the verbal, voluntary, involuntary, and respiratory responses, in reaction time and certain other aspects of behavior such as bodily movement, laughing, sighing, etc., were considered for different word classes. The word classes were the following:

1. *Complex* words the 10 words taken from the story told to the subject.
2. *Complex-Associated—First Type*. These were words which the subject himself apparently connected in some way with the story, as indicated by the verbal responses. For example, in the subject under discussion, the stimulus word *Smooth* (No. 18) elicited the response "rough" in the control sessions and in the waking complex session, but in the hypnotic complex session the response was "silk." To qualify for classification as a Complex-Associated—First Type word the response had to appear to all three of the authors as definitely related to the complex situation, to be one of the words actually used in the complex story, and not to have appeared in any control session prior to the induction of the complex. This criterion for selecting Complex-Associated—First Type words we consider as being conservative and as likely to result in the omission of some items since the same response in control and complex sessions may have a different meaning for the subject. This point will be discussed later.
3. *Natural Complex* words. These were chosen on the basis of our knowledge of the person: and from what he reported when the list was reviewed with him after the conclusion of the experiment. In this particular person they were words which presumably would usually arouse some affect outside of the experimental situation. The stimulus word *fall* (No. 90) was such a one. The subject two years previously had been in an airplane accident in which he had broken an ankle.
4. Reference to Table 1 shows that the same word (No. 90) elicited a response in the first control session which might be connected with such a natural complex, but after the complex induction the responses changed to "light" and "spark," which fact led us to believe that this stimulus word also became related to the complex. Because there were a number of such words which changed in class from one session to another, an additional class was formed, called *Natural Complex + Complex-Associated* words.
5. A *Complex-Associated—Second Type* classification was made on the basis of disturbed nonverbal responses which might be related to the complex story in an

indirect way. We made the assumption here that the technique used did reveal the presence of affect and attempted to see if we could establish some association with the complex story. Sometimes the subject could explain why he responded with the particular word. In either case the stimulus was put into the second type of *Complex-Associated* words. Such information was obtained from the subject after the experiment was finished and the procedure had been explained to him. This was done by examining with him each of the verbal responses.<sup>10</sup> Obviously there are many more possible sources of error in this classification than in the others, and the results therefore must be scrutinized with great care.

6. All the remaining words were called *Neutral*. Our knowledge of each subject's life was not adequate, and the Natural Complex class probably suffers mostly on the side of omission. It is also likely that among the Neutral words are some which should have been classed Natural Complex and Complex-Associated.<sup>11</sup>

Each of these word classes was first analyzed for the number of "disturbances" in the verbal and nonverbal material from session to session. By a "disturbance" in the verbal response is meant any significant word from the complex story which first appears in a complex session, e.g., to the C word *brown* (No. 28) the subject's responses for the first control sessions are "eyes" and "color," whereas in the complex sessions the responses are "burn" and "silk"; after the removal of the complex the responses are "white," "color," and "white." Here the responses "burn" and "silk" are rated as verbal disturbances. Because of the criteria set, it is likely that some verbal disturbances may have been omitted, e.g., the response "clothes" to *dress* (No. 16) in Session IV. Since "clothes" appeared in the second control, we did not count the same response in this session as a verbal disturbance. It may have been specific to the complex here and have had an entirely different significance for the subject. In the voluntary, involuntary, and respiratory responses any fairly definite deviation from the normal was counted as a disturbance, after agreement by two of the authors working independently and then combining judgments. If there was disagreement as to the presence of disturbances, the nonverbal response was considered as not disturbed. In the voluntary responses irregularities in the baseline after the stimulus word was given, or in the pressure response, or after the stylus had returned to the baseline but before the next stimulus word was given, were recorded as voluntary disturbances. Figure 1 gives examples of these. Involuntary changes in the nonpreferred hand consisted of either an increase in tremor amplitude or shifts in the baseline. Respiratory changes were those which involved sudden inspirations or expirations or increased depth or rate of breathing. The respiration curve was complicated by the chest movements which accompanied the verbal response, hence these had to be considered when rating respiratory disturbances. A verbal reaction time was considered as disturbed only if it was extremely long.<sup>12,13</sup>



**Figure I.** This figure is from the waking complex Session IV of the sample subject (No.1). (1) Verbal reaction time. (2) Respiration. (3) Left-hand, involuntary. (4) Right-hand, voluntary. (5) Time in seconds. The voluntary pressures on words Nos. 14 and 16 are disturbed. The respiration line does not show characteristic breathing since the pneumograph was not drawn as tightly about the chest as was the usual practice. The loose adjustment was made in this subject because such large inspirations generally accompanied his respiratory disturbances that the stylus of the recording tambour moved off the kymograph.

stimulus	class	responses	Session No. I			Session No. II			Session No. III		
			Delayed A.F.	Individual	Total	Delayed A.F.	Individual	Total	Delayed A.F.	Individual	Total
1. Table	H	1. chair	1.5	1. chair	1.5	1.5	1. chair	1.5	1.5	1. chair	1.5
2. Box	H	2. wood	1.5	2. square	2.7	2.5	2. square	2.6	2.5	2. square	2.6
3. Movie	H	3. sheet	1.5	3. sheet	1.5	1.5	3. sheet	1.5	1.5	3. sheet	1.5
4. Ball	H	4. bat	2.1	4. bat	1.8	1.8	4. bat	2.0	1.8	4. bat	2.0
5. Man	H	5. man	2.0	5. man	1.8	1.8	5. man	2.0	1.8	5. man	2.0
6. Queen	C	6. queen	2.0	6. queen	2.0	2.0	6. queen	2.0	2.0	6. queen	2.0
7. Silk	C	7. wool	1.5	7. wool	1.5	1.5	7. wool	1.5	1.5	7. wool	1.5
8. Eating	H	8. food	2.2	8. food	1.7	1.7	8. food	2.0	1.7	8. food	2.0
9. Dark	CA2	9. light	1.5	9. light	1.5	1.5	9. light	1.5	1.5	9. light	1.5
10. Important	H	10. necessary	2.5	10. necessary	2.5	2.5	10. necessary	2.5	2.5	10. necessary	2.5
11. Black	H	11. white	1.5	11. white	2.0	1.5	11. white	1.5	1.5	11. white	1.5
12. Soft	CA1	12. hard	1.5	12. hard	2.0	1.5	12. hard	2.0	1.5	12. hard	2.0
13. Day-dream	HC	13. dream	3.5	13. dream	3.4	3.4	13. dream	3.5	3.4	13. dream	3.5
14. Hand	CA1	14. foot	1.5	14. foot	1.5	1.5	14. foot	1.5	1.5	14. foot	1.5
15. Fruit	H	15. apples	1.5	15. apples	2.5	2.5	15. apples	2.5	2.5	15. apples	2.5
16. Dress	C	16. undress	1.5	16. undress	2.5	2.5	16. undress	1.5	1.5	16. undress	1.5
17. Butterfly	HC	17. insect	1.5	17. insect	1.5	1.5	17. insect	1.5	1.5	17. insect	1.5
18. Smooth	CA1	18. rough	1.5	18. rough	2.0	1.5	18. rough	2.1	1.5	18. rough	2.1
19. Kiss	HC	19. occultate	1.5	19. occultate	2.0	1.5	19. occultate	2.0	1.5	19. occultate	2.0
20. Chair	CA1	20. table	1.5	20. table	1.5	1.5	20. table	1.5	1.5	20. table	1.5
21. Sweet	H	21. sour	1.5	21. sour	1.5	1.5	21. sour	1.5	1.5	21. sour	1.5
22. Push	H	22. pull	2.0	22. pull	1.5	1.5	22. pull	2.1	1.5	22. pull	2.1
23. Woman	CA1+HC	23. man	1.5	23. man	2.5	2.5	23. man	2.5	2.5	23. man	2.5
24. Comfort	H	24. sleep	2.5	24. sleep	2.5	2.5	24. sleep	2.5	2.5	24. sleep	2.5
25. Fish	H	25. hope	2.0	25. hope	1.5	1.5	25. hope	2.0	1.5	25. hope	2.0
26. River	H	26. deep	2.4	26. deep	2.5	2.5	26. deep	2.5	2.5	26. deep	2.5
27. Dream	C	27. eyes	2.5	27. eyes	2.5	2.5	27. eyes	2.5	2.5	27. eyes	2.5
28. Beautiful	CA1	28. nature	2.2	28. nature	2.5	2.5	28. nature	2.5	2.5	28. nature	2.5
29. Window	H	29. house	2.5	29. house	2.5	2.5	29. house	2.5	2.5	29. house	2.5
30. Electricity	H	31. motor	2.7	31. generator	3.1	3.1	31. generator	3.1	3.1	31. generator	3.1
31. Citizen	HC	32. city	4.2	32. population	3.7	3.7	32. population	3.7	3.7	32. population	3.7
32. Foot	H	33. hand	1.5	33. hand	1.5	1.5	33. hand	1.5	1.5	33. hand	1.5
33. Voices	H	34. hallucination	1.5	34. hallucination	3.0	3.0	34. hallucination	3.0	3.0	34. hallucination	3.0
34. Handle	H	35. thread	1.5	35. thread	2.5	2.5	35. thread	2.5	2.5	35. thread	2.5
35. Short	H	36. long	1.5	36. long	2.1	2.1	36. long	2.1	2.1	36. long	2.1
36. Stomach	H	37. food	2.6	37. intestines	2.4	2.4	37. food	2.6	2.6	37. food	2.6
37. Whistle	H	38. blow	1.5	38. blow	2.5	2.5	38. blow	2.5	2.5	38. blow	2.5
38. Slow	H	39. fast	1.7	39. fast	2.0	2.0	39. fast	2.0	2.0	39. fast	2.0
39. Cigaretta	C	40. smoke	1.5	40. smoke	2.0	2.0	40. smoke	2.0	2.0	40. smoke	2.0
41. High	HC	41. low	1.5	41. low	2.5	2.5	41. low	2.5	2.5	41. low	2.5
42. Working	H	43. writing	2.5	43. writing	2.5	2.5	43. writing	2.5	2.5	43. writing	2.5
43. Monkey	H	44. tail	2.5	44. tail	2.5	2.5	44. tail	2.5	2.5	44. tail	2.5
44. White	CA1	45. black	4.5	45. black	4.5	4.5	45. black	4.5	4.5	45. black	4.5
45. Mouth	CA1	46. mouth	1.5	46. mouth	2.5	2.5	46. mouth	2.5	2.5	46. mouth	2.5
46. Hission	H	47. tongue	1.5	47. tongue	1.5	1.5	47. tongue	1.5	1.5	47. tongue	1.5
47. Cabbage	H	48. tongue	2.0	48. tongue	2.5	2.5	48. tongue	2.5	2.5	48. tongue	2.5
48. Hard	CA1	49. soft	2.0	49. soft	2.5	2.5	49. soft	2.5	2.5	49. soft	2.5
49. Burned	H	50. black	2.5	50. black	2.5	2.5	50. black	2.5	2.5	50. black	2.5
50. Blame	H	51. dream	2.0	51. dream	2.5	2.5	51. dream	2.5	2.5	51. dream	2.5
51. Deep	H	52. river	2.5	52. river	2.2	2.2	52. river	2.2	2.2	52. river	2.2
52. Girl	CA1+HC	53. boy	1.5	53. boy	3.0	3.0	53. boy	3.0	3.0	53. boy	3.0
53. Sun	H	54. sweet	1.5	54. sweet	4.2	4.2	54. sweet	4.2	4.2	54. sweet	4.2
54. Soldier	H	55. war	1.5	55. war	2.5	2.5	55. war	2.5	2.5	55. war	2.5
55. Marriage	HC	56. house	1.5	56. house	2.5	2.5	56. house	2.5	2.5	56. house	2.5
56. Eagle	H	57. bird	1.5	57. bird	2.1	2.1	57. bird	2.1	2.1	57. bird	2.1
57. Bird	H	58. girl	1.5	58. girl	2.5	2.5	58. girl	2.5	2.5	58. girl	2.5
58. Guilty	CA2	59. insect	2.5	59. insect	4.2	4.2	59. insect	4.2	4.2	59. insect	4.2
59. Health	H	60. doctor	2.2	60. doctor	3.1	3.1	60. doctor	3.1	3.1	60. doctor	3.1
60. Holes	C	61. well	2.7	61. well	3.0	3.0	61. well	3.0	3.0	61. well	3.0
61. Memory	CA1	62. thought	2.5	62. thought	2.5	2.5	62. thought	2.5	2.5	62. thought	2.5
62. Pool	H	63. swim	3.5	63. swim	2.7	2.7	63. swim	2.7	2.7	63. swim	2.7
63. Fairy	CA2	64. unreal	4.1	64. unreal	3.2	3.2	64. unreal	3.2	3.2	64. unreal	3.2
64. Cottage	H	65. yard	2.7	65. yard	3.0	3.0	65. yard	3.0	3.0	65. yard	3.0
65. Concentrate	H	66. think	2.0	66. think	2.5	2.5	66. think	2.5	2.5	66. think	2.5
66. Lamp	CA1	67. light	1.5	67. light	2.5	2.5	67. light	2.5	2.5	67. light	2.5
67. Hungry	H	68. food	2.0	68. food	2.5	2.5	68. food	2.5	2.5	68. food	2.5
68. Blame	H	69. accuse	4.1	69. accuse	6.0	6.0	69. accuse	6.0	6.0	69. accuse	6.0
69. Ocean	H	70. sea	3.0	70. sea	1.5	1.5	70. sea	1.5	1.5	70. sea	1.5
70. Light	H	71. dark	2.5	71. dark	2.5	2.5	71. dark	2.5	2.5	71. dark	2.5
71. Persecute	CA2	72. elect. chair	1.5	72. elect. chair	2.5	2.5	72. elect. chair	2.5	2.5	72. elect. chair	2.5
72. Long	H	73. short	1.5	73. short	2.5	2.5	73. short	2.5	2.5	73. short	2.5
73. Swift	H	74. slow	1.5	74. slow	2.5	2.5	74. slow	2.5	2.5	74. slow	2.5
74. Sex	CA1	75. male	1.5	75. male & fem.	2.5	2.5	75. male & fem.	2.5	2.5	75. male & fem.	2.5
75. Squares	CA1	76. taste	1.5	76. taste	2.4	2.4	76. taste	2.4	2.4	76. taste	2.4
76. Bitter	CA1	77. ruin	2.2	77. ruin	2.9	2.9	77. ruin	2.9	2.9	77. ruin	2.9
77. Damage	C	78. nail	1.4	78. nail	1.7	1.7	78. nail	1.7	1.7	78. nail	1.7
78. Hammer	H	79. street	2.0	79. street	1.9	1.9	79. street	1.9	1.9	79. street	1.9
79. City	H	80. heart	2.5	80. heart	2.5	2.5	80. heart	2.5	2.5	80. heart	2.5
80. Neck	CA1	81. blood	1.5	81. blood	2.7	2.7	81. blood	2.7	2.7	81. blood	2.7
81. Butter	H	82. sky	1.7	82. sky	1.8	1.8	82. sky	1.8	1.8	82. sky	1.8
82. Blue	H	83. light	2.4	83. light	2.2	2.2	83. light	2.2	2.2	83. light	2.2
83. Heavy	H	84. sugar	1.9	84. sugar	2.5	2.5	84. sugar	2.5	2.5	84. sugar	2.5
84. Salt	CA1	85. mouthless	1.5	85. mouthless	2.5	2.5	85. mouthless	2.5	2.5	85. mouthless	2.5
85. Dorothy	H	86. sorrow	2.2	86. sorrow	3.0	3.0	86. sorrow	3.0	3.0	86. sorrow	3.0
86. Eye	CA1	87. sleep	2.5	87. sleep	2.4	2.4	87. sleep	2.4	2.4	87. sleep	2.4
87. Bed	H	88. taste	2.0	88. taste	3.7	3.7	88. taste	3.7	3.7	88. taste	3.7
88. Scent	C	89. smoke	1.8	89. smoke	2.5	2.5	89. smoke	2.5	2.5	89. smoke	2.5
89. Tobacco	CA1	90. heart	2.5	90. heart	2.5	2.5	90. heart	2.5	2.5	90. heart	2.5
90. Fall	CA1+HC	91. heart	2.1	91. heart	2.5	2.5	91. heart	2.5	2.5	91. heart	2.5
91. Religion	H	92. cut	2.1	92. cut	2.5	2.5	92. cut	2.5	2.5	92. cut	2.5
92. Scissors	H	93. find	1.9	93. find	3.5	3.5	93. find	3.5	3.5	93. find	3.5
93. Pine	H	94. coarse	1.5	94. coarse	2.5	2.5	94. coarse	2.5	2.5	94. coarse	2.5
94. Bath	H	95. soap	2.6	95. soap	2.5	2.5	95. soap	2.5	2.5	95. soap	2.5
95. Pull	H	96. rush	1.7	96. rush	2.5	2.5	96. rush	2.5	2.5	96. rush	2.5
96. Street	CA2	97. city	2.0	97. city	2.5	2.5	97. city	2.5	2.5	97. city	2.5
97. King	H	98. queen	2.3	98. queen	2.5	2.5	98. queen	2.5	2.5	98. queen	2.5
98. Self-resp.	C	99. ideal	4.4	99. ideal	3.7	3.7	99. ideal	3.7	3.7	99. ideal	3.7
99. Cheese	H	100. butter	2.6	100. butter	2.5	2.5	100. butter	2.5	2.5	100. butter	2.5
100. Orange	H	100. awkward	1.5	100. awkward	2.5	2.5	100. awkward	2.5	2.5	100. awkward	2.5
c (10 words)			100	100	100	100	100	100	100	100	100
ca (1a words)			100	100	100	100	100	100	100	100	100
ca (4 words)			100	100	100	100	100	100	100	100	100
ca (1 word)			100	100	100	100	100	100	100	100	100
child (2 words)			100	100	100	100	100	100	100	100	100
child (3 words)			100	100	100	100	100	100	100	100	100
total (100)			100	100	100	1					

Session No. IV				Session No. V				Session No. VI				Session No. VII			
Reasons	Voluntary	Involuntary	Total	Reasons	Voluntary	Involuntary	Total	Reasons	Voluntary	Involuntary	Total	Reasons	Voluntary	Involuntary	Total
1. chair	1.7	1.7	3.4	1. chair	1.8	1.8	3.6	1. chair	1.5	1.5	3.0	1. chair	2.1	2.1	4.2
2. square	2.8	2.8	5.6	2. cube	2.1	2.1	4.2	2. cube	1.8	1.8	3.6	2. cube	1.7	1.7	3.4
3. red	2.8	2.8	5.6	3. plane	2.0	2.0	4.0	3. sheet	2.2	2.2	4.4	3. sheet	1.9	1.9	3.8
4. bat	1.6	1.6	3.2	4. bat	1.8	1.8	3.6	4. bat	1.5	1.5	3.0	4. bat	1.8	1.8	3.6
5. man	2.0	2.0	4.0	5. man	1.8	1.8	3.6	5. woman	1.5	1.5	3.0	5. woman	1.8	1.8	3.6
6. peculiar	2.7	2.7	5.4	6. peculiar	1.6	1.6	3.2	6. peculiar	1.6	1.6	3.2	6. peculiar	1.6	1.6	3.2
7. fibre	4.7	4.7	9.4	7. fine	2.0	2.0	4.0	7. fine	1.9	1.9	3.8	7. fine	2.0	2.0	4.0
8. food	5.1	5.1	10.2	8. chewing	2.6	2.6	5.2	8. chewing	2.0	2.0	4.0	8. chewing	2.1	2.1	4.2
9. light	5.8	5.8	11.6	9. light	1.5	1.5	3.0	9. light	1.7	1.7	3.4	9. light	1.4	1.4	2.8
10. meat	2.8	2.8	5.6	10. garment	2.1	2.1	4.2	10. important	2.2	2.2	4.4	10. mrs	2.6	2.6	5.2
11. white	1.4	1.4	2.8	11. white	1.8	1.8	3.6	11. white	1.4	1.4	2.8	11. white	1.6	1.6	3.2
12. hard	3.8	3.8	7.6	12. hard	2.2	2.2	4.4	12. hard	1.7	1.7	3.4	12. hard	1.6	1.6	3.2
13. sleep	4.8	4.8	9.6	13. sleep	2.3	2.3	4.6	13. sleep	2.3	2.3	4.6	13. sleep	1.8	1.8	3.6
14. foot	4.0	4.0	8.0	14. foot	1.5	1.5	3.0	14. foot	1.5	1.5	3.0	14. foot	1.7	1.7	3.4
15. apple	2.0	2.0	4.0	15. apple	1.8	1.8	3.6	15. apple	1.8	1.8	3.6	15. apple	1.8	1.8	3.6
16. clothes	2.0	2.0	4.0	16. clothes	2.0	2.0	4.0	16. clothes	1.8	1.8	3.6	16. clothes	1.8	1.8	3.6
17. wings	1.8	1.8	3.6	17. insect	1.7	1.7	3.4	17. insect	2.1	2.1	4.2	17. insect	1.7	1.7	3.4
18. rough	4.8	4.8	9.6	18. rough	1.7	1.7	3.4	18. rough	1.7	1.7	3.4	18. rough	2.0	2.0	4.0
19. hug	5.0	5.0	10.0	19. hug	3.1	3.1	6.2	19. hug	1.9	1.9	3.8	19. hug	1.8	1.8	3.6
20. table	2.4	2.4	4.8	20. table	1.8	1.8	3.6	20. table	1.9	1.9	3.8	20. table	1.8	1.8	3.6
21. sour	2.8	2.8	5.6	21. sour	1.8	1.8	3.6	21. sour	1.8	1.8	3.6	21. sour	1.6	1.6	3.2
22. pull	2.8	2.8	5.6	22. pull	1.8	1.8	3.6	22. pull	1.7	1.7	3.4	22. pull	1.6	1.6	3.2
23. girl	4.8	4.8	9.6	23. sea	1.8	1.8	3.6	23. sea	1.6	1.6	3.2	23. sea	1.8	1.8	3.6
24. sleep	4.0	4.0	8.0	24. ease	1.8	1.8	3.6	24. sleep	2.0	2.0	4.0	24. ease	1.8	1.8	3.6
25. color	2.8	2.8	5.6	25. color	2.3	2.3	4.6	25. color	2.1	2.1	4.2	25. color	1.9	1.9	3.8
26. hope	2.8	2.8	5.6	26. hope	2.0	2.0	4.0	26. hope	1.8	1.8	3.6	26. hope	1.9	1.9	3.8
27. water	2.8	2.8	5.6	27. deep	2.7	2.7	5.4	27. deep	2.4	2.4	5.8	27. deep	1.7	1.7	3.4
28. silk	5.0	5.0	10.0	28. white	1.7	1.7	3.4	28. white	2.0	2.0	4.0	28. white	1.4	1.4	2.8
29. girl	2.8	2.8	5.6	29. nature	2.9	2.9	5.8	29. nature	2.0	2.0	4.0	29. nature	2.8	2.8	5.6
30. room	2.8	2.8	5.6	30. light	1.8	1.8	3.6	30. light	2.0	2.0	4.0	30. light	2.3	2.3	4.6
31. light	3.8	3.8	7.6	31. generator	2.1	2.1	4.2	31. generator	2.4	2.4	5.8	31. generator	2.1	2.1	4.2
32. city	4.8	4.8	9.6	32. people	2.4	2.4	4.8	32. people	1.9	1.9	3.8	32. people	2.8	2.8	5.6
33. hand	2.8	2.8	5.6	33. hand	2.0	2.0	4.0	33. hand	1.7	1.7	3.4	33. hand	2.0	2.0	4.0
34. vibration	4.8	4.8	9.6	34. chords	2.9	2.9	5.8	34. vibration	2.7	2.7	5.4	34. vibration	2.6	2.6	5.2
35. thread	1.7	1.7	3.4	35. thread	1.8	1.8	3.6	35. thread	1.8	1.8	3.6	35. thread	1.8	1.8	3.6
36. long	2.8	2.8	5.6	36. long	1.7	1.7	3.4	36. long	1.6	1.6	3.2	36. long	1.5	1.5	3.0
37. food	3.8	3.8	7.6	37. intestines	2.7	2.7	5.4	37. food	2.0	2.0	4.0	37. food	2.1	2.1	4.2
38. blow	2.7	2.7	5.4	38. blow	1.7	1.7	3.4	38. blow	1.8	1.8	3.6	38. blow	1.9	1.9	3.8
39. swift	3.8	3.8	7.6	39. fast	1.4	1.4	2.8	39. fast	1.9	1.9	3.8	39. fast	2.0	2.0	4.0
40. smoke	2.8	2.8	5.6	40. smoke	1.7	1.7	3.4	40. smoke	1.9	1.9	3.8	40. smoke	2.1	2.1	4.2
41. low	2.8	2.8	5.6	41. low	1.4	1.4	2.8	41. low	1.7	1.7	3.4	41. low	1.5	1.5	3.0
42. labor	2.8	2.8	5.6	42. labor	2.0	2.0	4.0	42. labor	1.8	1.8	3.6	42. labor	1.8	1.8	3.6
43. animal	2.8	2.8	5.6	43. animal	1.5	1.5	3.0	43. animal	1.8	1.8	3.6	43. animal	1.4	1.4	2.8
44. brown	2.8	2.8	5.6	44. black	1.6	1.6	3.2	44. black	2.2	2.2	4.4	44. black	2.2	2.2	4.4
45. smooth	2.8	2.8	5.6	45. smooth	2.0	2.0	4.0	45. smooth	1.5	1.5	3.0	45. smooth	1.5	1.5	3.0
46. duty	2.8	2.8	5.6	46. errand	1.4	1.4	2.8	46. errand	1.9	1.9	3.8	46. errand	2.0	2.0	4.0
47. head	2.8	2.8	5.6	47. head	1.8	1.8	3.6	47. head	1.8	1.8	3.6	47. head	2.8	2.8	5.6
48. soft	2.8	2.8	5.6	48. soft	1.4	1.4	2.8	48. soft	1.6	1.6	3.2	48. soft	1.9	1.9	3.8
49. combustion	2.8	2.8	5.6	49. combustion	2.7	2.7	5.4	49. combustion	2.3	2.3	5.6	49. combustion	2.8	2.8	5.6
50. dream	2.8	2.8	5.6	50. dream	1.1	1.1	2.2	50. dream	1.7	1.7	3.4	50. dream	3.1	3.1	6.2
51. river	2.0	2.0	4.0	51. river	1.9	1.9	3.8	51. river	1.6	1.6	3.2	51. river	1.7	1.7	3.4
52. boy	5.9	5.9	11.8	52. boy	2.4	2.4	4.8	52. boy	1.2	1.2	2.4	52. boy	1.4	1.4	2.8
53. taste	4.1	4.1	8.2	53. sweet	1.8	1.8	3.6	53. sweet	1.3	1.3	2.6	53. sweet	1.4	1.4	2.8
54. courage	4.0	4.0	8.0	54. brave	1.8	1.8	3.6	54. brave	2.0	2.0	4.0	54. brave	2.0	2.0	4.0
55. intercourse	2.8	2.8	5.6	55. home	2.0	2.0	4.0	55. home	1.7	1.7	3.4	55. home	1.8	1.8	3.6
56. bird	2.8	2.8	5.6	56. bird	1.7	1.7	3.4	56. bird	1.6	1.6	3.2	56. bird	1.8	1.8	3.6
57. girl	2.8	2.8	5.6	57. girl	1.6	1.6	3.2	57. girl	1.3	1.3	2.6	57. girl	1.4	1.4	2.8
58. no	2.8	2.8	5.6	58. innocent	2.0	2.0	4.0	58. innocent	1.6	1.6	3.2	58. innocent	1.3	1.3	2.6
59. sick	2.1	2.1	4.2	59. sanitarium	2.2	2.2	4.4	59. sanitarium	2.0	2.0	4.0	59. sanitarium	1.8	1.8	3.6
60. push	2.8	2.8	5.6	60. part	5.6	5.6	11.2	60. part	2.1	2.1	4.2	60. part	2.1	2.1	4.2
61. distasteful	5.0	5.0	10.0	61. brain	2.4	2.4	4.8	61. brain	2.5	2.5	5.0	61. brain	2.9	2.9	5.8
62. water	2.8	2.8	5.6	62. water	1.9	1.9	3.8	62. water	1.7	1.7	3.4	62. water	1.9	1.9	3.8
63. light	4.8	4.8	9.6	63. book	2.1	2.1	4.2	63. book	1.5	1.5	3.0	63. book	1.9	1.9	3.8
64. small	2.8	2.8	5.6	64. house	2.5	2.5	5.0	64. house	1.5	1.5	3.0	64. house	2.1	2.1	4.2
65. forest	2.8	2.8	5.6	65. think	2.0	2.0	4.0	65. think	1.7	1.7	3.4	65. think	1.6	1.6	3.2
66. burn	2.8	2.8	5.6	66. burn	2.1	2.1	4.2	66. burn	1.8	1.8	3.6	66. burn	2.4	2.4	5.8
67. food	5.0	5.0	10.0	67. food	1.9	1.9	3.8	67. food	2.0	2.0	4.0	67. food	2.3	2.3	5.6
68. accuse	6.4	6.4	12.8	68. accuse	4.2	4.2	8.4	68. accuse	3.8	3.8	7.6	68. accuse	3.1	3.1	6.2
69. blue	3.2	3.2	6.4	69. sea	3.0	3.0	6.0	69. sea	1.8	1.8	3.6	69. sea	1.9	1.9	3.8
70. electricity	2.8	2.8	5.6	70. lamp	3.1	3.1	6.2	70. lamp	2.3	2.3	5.6	70. lamp	2.5	2.5	5.0
71. punishment	2.8	2.8	5.6	71. punishment	2.1	2.1	4.2	71. punishment	2.6	2.6	5.2	71. punishment	1.7	1.7	3.4
72. short	1.7	1.7	3.4	72. short	2.2	2.2	4.4	72. short	1.4	1.4	2.8	72. short	1.7	1.7	3.4
73. fast	1.7	1.7	3.4	73. slow	1.3	1.3	2.6	73. slow	2.0	2.0	4.0	73. slow	2.2	2.2	4.4
74. girl	2.4	2.4	4.8	74. appeal	2.9	2.9	5.8	74. appeal	2.4	2.4	5.8	74. appeal	3.0	3.0	6.0
75. round	2.8	2.8	5.6	75. round	1.3	1.3	2.6	75. round	1.9	1.9	3.8	75. round	1.7	1.7	3.4
76. memory	3.0	3.0	6.0	76. sweet	1.8	1.8	3.6	76. sweet	1.5	1.5	3.0	76. sweet	1.9	1.9	3.8
77. burn	2.4	2.4	4.8	77. ruin	1.8	1.8	3.6	77. ruin	2.0	2.0	4.0	77. ruin	2.0	2.0	4.0
78. nail	1.9	1.9	3.8	78. nail	1.5	1.5	3.0	78. nail	1.8	1.8	3.6	78. nail	1.7	1.7	3.4
79. street	2.4	2.4	4.8	79. street	2.3	2.3	4.6	79. street	1.6	1.6	3.2	79. street	1.8	1.8	

The verbal responses in all sessions and the disturbances which were associated with them are presented in Table 1. A careful perusal of this table will show the marked change which the verbal responses underwent in Sessions III and IV, especially those classed as *C* and *CA<sub>1</sub>*. No additional reference will be made to these responses except in special instances. Each session is summarized at the bottom of the table for types of disturbance appearing on the word classes.<sup>14</sup> It is at once apparent that the totals for the complex sessions show a greater number of disturbances than the totals of the control sessions, the hypnotic complex having 38 and the waking complex 60, as opposed to 14 and 21 of the respective control sessions. This increase is largely due to those word classes designated as *C* and *CA<sub>1</sub>*. In Session III—the hypnotic complex session—27 of the 38 disturbances are accounted for by these groups, and in Session IV—the waking complex session—31 of the 60 fall in the *C* and *CA<sub>1</sub>*, classes. The induction of the complex has apparently had two effects: to “set” the subject so that he gave verbal replies which were related to the complex and to disorganize his voluntary, involuntary, and respiratory behavior. In addition, these effects manifest themselves differently in the hypnotic and waking states. Of the 27 disturbances accounted for by *C* and *CA<sub>1</sub>*, words in Session III, 21 are verbal, while in Session IV but 12 of the 31 disturbances are verbal. Reference to Table 2 shows this clearly. In hypnotic Session III 84 percent of the *C* and *CA<sub>1</sub>*, words were disturbed verbally, and their nonverbal disturbance was 5.3 percent.<sup>15</sup> In waking complex Session IV the verbal disturbance has fallen to 48 percent on the class *C* and *CA<sub>1</sub>*, taken together, while the nonverbal has risen to 21.4 percent.

The following explanation of this result occurs to us. Since the complex was given under hypnosis, it is reasonable to assume that the resulting mental set would cause the subject to reply to the *C* words with a response which is related to the complex story. That this set was of considerable importance is seen by the other words (*CA<sub>1</sub>*) which were drawn into the complex situation, there being 15 such.<sup>16</sup> In the waking state, however, the subject, as nearly as we could determine, had an amnesia for the complex and was therefore probably in lesser contact with it. At the same time he was in greater rapport with the experimental environment, hence the verbal responses related to the complex were not elicited as easily. To explain the small number of nonverbal responses in the hypnotic complex session, there being four on *C* and *CA<sub>1</sub>* words (excluding reaction time), we might assume that whatever excitation the conflict created was discharged verbally in giving the related response. In the following waking complex Session IV, however, the verbal responses related to the complex were not elicited as readily and the excitation created by the conflict spread into the motor response, giving rise to greater disturbances. Both *C* and *CA<sub>1</sub>* words illustrate this point. In the hypnotic complex Session III there were nine responses on the *C* words related to the complex and none on the nonverbal. But in the waking complex Session IV there were but two which were disturbed verbally alone, three both verbally and nonverbally, and three nonverbally. On *CA<sub>1</sub>* words in the hypnotic complex Session III the results are: verbal alone, 9; verbal and nonverbal, 3; nonverbal alone, 0; in the waking complex Session IV: verbal alone, 4; verbal and nonverbal, 3; nonverbal, 3. The further implication of these results is that, while the combined association-motor method of Luria does seem to reveal conflicts

induced by means of hypnosis, a conflict need not necessarily result in disorganization at the nonverbal level. It would be difficult otherwise to explain the paucity of nonverbal disturbances in the hypnotic complex session. It seems that some such assumption as we have indicated concerning the possibility of a complete discharge of excitation verbally is necessary.<sup>17</sup>

**TABLE 2**  
**Percentage Verbal and NonVerbal Disturbances for Word Classes (C & CA, Combined) and for All Others (CA, + NC, NC, CA,, N)**

		<i>Session I</i>		<i>Session II</i>		<i>Session III</i>		<i>Session IV</i>		<i>Session V</i>	
		<i>Waking Control</i>		<i>Waking Control</i>		<i>Waking Control</i>		<i>Waking Control</i>		<i>Waking Control</i>	
		<i>Verbal</i>	<i>%</i>								
<i>C &amp; CA<sub>I</sub></i>	D										
<i>C &amp; CA<sub>I</sub></i>	0		0.0								
All Others	0		0.0								
<i>C &amp; CA<sub>I</sub></i>	D										
<i>C &amp; CA<sub>I</sub></i>	0		0.0								
All Others	0		0.0								
<i>C &amp; CA<sub>I</sub></i>	D										
<i>C &amp; CA<sub>I</sub></i>	21		84.0								
All Others	3		4.0								
<i>C &amp; CA<sub>I</sub></i>	D										
<i>C &amp; CA<sub>I</sub></i>	2		8.0								
All Others	2		2.7								
<i>C &amp; CA<sub>I</sub></i>	D										
<i>C &amp; CA<sub>I</sub></i>	1		4.0								
All Others	0		0.0								

<i>Session VI</i> <i>Waking Control</i>					
	<i>Verbal</i>		<i>Nonverbal</i>		
	D	%	D	%	
<i>C &amp; CA<sub>1</sub></i> , All Others	0	0.0	2	2.7	
	0	0.0	6	2.7	

<i>Session VII</i> <i>Waking Control</i>					
	<i>Verbal</i>		<i>Nonverbal</i>		
	D	%	D	%	
<i>C &amp; CA<sub>1</sub></i> , All Others	2	8.0	2	2.7	
	0	0.0	2	0.9	

D =Number disturbed

Possible total verbal disturbance      C & CA<sub>1</sub>      25  
 Possible total verbal disturbance      All others      75

Possible total nonverbal disturbance      C & CA<sub>1</sub>      75  
 Possible total nonverbal disturbance      All others      225

(Reaction time excluded)

But how shall we account for the other disturbances which have appeared in these two sessions? Indeed, what is the meaning of the disturbances which occur in the control sessions? In Session III there were three verbal disturbances on the word Class CA<sub>1</sub>+ NC which have not been discussed thus far. It is clear that the verbal disturbance is due to the CA<sub>1</sub> and not to the NC, since our criterion of classifying them CA<sub>1</sub>, was based on relationship to the complex story. No nonverbal disturbances appear in this class.<sup>18</sup> Two voluntary disturbances appear on the class designated as CA<sub>2</sub> on Nos. 9 and 96. These are probably related to the complex as already indicated by the way in which they were selected. The remaining 6 disturbances are on 5-words.<sup>19</sup> These are numbers 36, 37, 59, 65, and 93. No. 37 ("Stomach-food"), with a voluntary disturbance, and No. 59 ("Health-sanitarium"), also with a voluntary disturbance, may both be considered as indicative of some natural complex material, since the subject reported he was taking a tonic for stomach trouble at the time of the experiment. This re-receives some confirmation from No. 67 ("Hungry-sick"). On the other hand, it is possible that this group of words implies that the subject felt miserable—a "sick to the stomach" feeling—because of his behavior in the complex story. Such an interpretation finds support in the somewhat greater unpleasant affective tone of the session as compared with the first two control sessions.<sup>20</sup> Nos. 37 and 59 may also involve an element of perseveration from 36 and 58, respectively. The disturbances on No. 65 ("Concentrate-meditate")—voluntary and reaction time—may have arisen because of the subject's preoccupation with the complex story. On No. 93 ("Fine-coarse"), disturbed in the voluntary aspect, the response which appeared in a previous control session may have taken on a figurative meaning for the subject, referring to his behavior in the complex situation as "coarse." We are unable to account for the voluntary disturbance on No. 36 ("Short-long") satisfactorily.

We have attempted to account for all the disturbances in the other sessions according to the principles set forth above. However, since we do not feel these explanations are pertinent to our present purpose, we shall give but a few additional examples.

The waking complex Session IV has 15 disturbances on 14 N words: Nos. 10, 24, 34, 46, 53, 64, 67, 73, 75, 92, 93, 99, and 100. No. 53 ("Sour-taste")—this is the only time in which "taste" appears as a response to this stimulus words. This fact in combination with the appearance of an involuntary disturbance suggests that the subject was referring to the unpleasantness of the complex in a figurative sense. There may also be an element of perseveration from No. 52 involved, which also showed considerable disturbance. No. 73 ("Swift-fast")—the response "fast," which is a different type of response from that of the control sessions, being a synonym as opposed to an antonym, appears with a voluntary disturbance. We may interpret this as probably referring to the necessity of speed in notifying the girl of the truth, a point touched on in the complex story.<sup>21</sup>

Having considered the complex sessions we shall take up the control sessions, beginning with Session I. In this first waking control session there are 21 disturbances on 17 words. It is especially interesting to note that there are six disturbed NC words out of a possible seven—a fact which would seem to indicate that NC material may be turned up, at least the first time the test is given. These NC disturbances are on Nos. 19, 32, 52, 55, 90, and 91.

The possible explanation that may be given to the other disturbances is that they are the results of natural complexes, permanent or transitory, of which we were not aware (enhanced or unenhanced by a "shock" effect), chance disturbances due to "shock," somewhat unusual, stimulus words for the subject, or perseveration. No. 68 ("Blame-accuse") with a respiratory disturbance, and No. 71 ("Persecute-electric chair") with voluntary and reaction time disturbances are probably disturbed because the stimulus words are somewhat unusual and often carry an unpleasant tone.

In Session II, hypnotic control, we should expect the "shock" effect of Session I to be reduced, but since hypnosis may reach a deeper personality level, the possibility of more natural complex material being aroused should be considered. The total disturbance in Session II has fallen to 14 and appears on words 2, 10, 27, 41, 49, 54, 58, 67, 86, 93, and 100. Word No. 41, with disturbances of respiration and reaction time, is NC, and No. 67 ("Hungry-stomach") with a voluntary disturbance, may also have been connected with a natural complex, as has been already indicated. As for No. 49 ("Burned-chemistry")—respiration and reaction time disturbed—we have a post experimental report of severe acid burns received by the subject at one time, which may account for the present disturbance. No. 54 ("Soldier-fight"), having a voluntary disturbance, may be connected with the natural complex involving *fall* and *high*, since the subject's airplane accident, already mentioned, took place while he was in the Army Air Corps.

In Session V, the first waking control after the complex session, we find 14 disturbances which fall on Nos. 19, 27, 29, 37, 60, 64, 66, 68, 71, 80, and 90. Any analysis must now consider the possibility of verbal and nonverbal affective residuals and nonaffective

verbal residuals from the complex sessions. No. 19 ("Kiss-hug"), disturbed in the voluntary and respiratory aspects, is *NC*, and it is probable that the *NC* part of No. 90 is responsible for the voluntary disturbance on it since the verbal response is "hurt." The verbal disturbance on No. 66 ("Lamp-burn") is probably due to a verbal affective or nonaffective residual.

The disturbances fall to 10 in the hypnotic control Session VI—on Nos. 9, 10, 13, 14, 17, 61, 68, and 90. Nos. 13, 17, and 90 are *NC* words.

Session VII shows 9 disturbances on Nos. 29, 38, 60, 61, 74, 85, 88, and 96. The nonverbal disturbance of a voluntary nature combined, with the verbal responses on No. 29 ("Beautiful-pretty") suggests an affective residual. The verbal disturbance on No. 88 ("Smell-burn") suggests either an affective or nonaffective residual.

The attempt to account for disturbances not related to the induced or natural complexes has, in the very nature of the case, to be quite speculative. We included examples of these interpretations because it seemed to us to point out the problem which future experimentation must face in order to make the technique a really satisfactory one.

Reference to Table 1 shows the mean reaction times and S.D.'s for all sessions and the means for the word classes. Examination of the means and S.D.s of all the sessions, despite questions which might be raised about the legitimacy of this measure of variation in this case, shows several interesting points. While the means of the first two controls are practically identical, the S.D. of Session I is somewhat larger than that of Session II, which may be an expression of what we have referred to as the "shock" effect. The word classes which contribute largely to this larger S. D. in Session I are *CA<sub>1</sub>* + *NC*, *NC*, *CA<sub>2</sub>*, and *C*, in order of their departure from the total mean from great to small. Since in the first control sessions the *CA<sub>1</sub>* + *NC* and *NC* groups are really all *NC*, it seems clear that there is a tendency for *NC* words in this session to be delayed. The longer-than-mean time on the *CA<sub>2</sub>* class may be caused by some natural complex material. Word No. 71 ("Persecute-electric chair") and its response suggests this inference. Since the *C* words, in general, were a bit unusual, this might lengthen their time. The class means have come together considerably in Session II—the *NC*, however, still being the longest. The mean of Session III is slightly greater, but the S.D. has continued to fall, the most surprising fact being the short reaction time of the *C* words, nine of which were disturbed verbally. This seems to support the verbal discharge hypothesis presented earlier and is in line with Luria's "law of the catalytic action of the stimulus." In the waking complex Session IV the mean has continued to rise, being greatest of any session, and the scatter has increased. The increases are on *CA<sub>2</sub>*, *C*, and *CA<sub>1</sub>*, words, which is to be expected if there has been any tendency to inhibit verbal responses. After the removal of the complex the means and S.D.'s decline to new low levels, probably due to a practice effect (Wells, 1927). In none of the sessions may the differences between means be regarded as significant statistically. Rather it is their general agreement with what might be expected which is striking.

Another point which might be mentioned is that there was a tendency for responses which were more highly specific to the complex to appear on the 10 Complex words and for those which were less specific to appear on Complex-Associated words. This tendency was not paralleled in the magnitude of the voluntary disturbances.

### **SUMMARY OF RESULTS ON ALL SUBJECTS**

Twelve subjects went through the same general procedure. There is evidence that nine accepted the story told to them as an account of something they had done. We base this on their general behavior during and between experiments, an example of which we have given in discussing the sample case.

Table 3 summarizes the results on all cases. Since there is a considerable amount of overlap, the plus (+) signs should be regarded only as indicative of predominant trends. In the waking state nonverbal behavior was disturbed in Subjects 1, 3, 4, 5, and 6c; in the hypnotic state in Subjects 2, 3, 4, 5, 6a, and 6b. The results on Subjects 7, 8, and 9 are largely negative so far as disorganization of the nonverbal aspects are concerned. Of the nine subjects who accepted the complex (Table 3), six gave definite evidence that some aspect of the Luria technique revealed the presence of a conflict. One of this group (No. 2) presented disturbances which were almost all of a voluntary character in hypnosis, with almost none in the waking complex sessions, so that it would have been difficult on the basis of the latter alone to know whether the subject had a conflict. However, after reinforcement of the suggestion, a few verbal and nonverbal disturbances appeared in the next waking complex session. This implies that this type of conflict may be entirely at the hypnotic level but if sufficiently strong may result in disturbances in the succeeding waking session. Two subjects (Nos. 3 and 4) showed voluntary disturbances in both states. One subject (No. 5) had greater involuntary responses than voluntary in hypnosis and waking, and the subject (No. 1) whom we discussed in detail showed his greatest nonverbal disturbance as voluntary in the waking state. Another subject went through the experiment three times: in the first two (Nos. 6a and 6b) the disturbances appeared in hypnosis as voluntary, the third time (No. 6c) voluntary disturbances were found in both states.<sup>22</sup> It is difficult to generalize about these six cases because such marked individual differences are found among them. However, one of the consistent findings is that the preponderance of verbal disturbances occurs in hypnosis and the relative importance of the nonverbal increases in the waking state. Another is that the C words, as would be expected, tend to evoke verbal responses which are more specifically related to the complex than any others.

**TABLE 3**  
**Results on All Subjects**

Subject No.	Sex	Complex Accepted	How revealed as disturbances					
			Both verbal and nonverbal				Nonverbal only	
			Verbal only		H	W	H	W
1	M	Yes		+				+
2	F	Yes				+		
3	F	Yes				+		+
4	F	Yes			+		+	
5	F	Yes			+		+	
6a	F	Yes				+		
6b		Yes				+		
6c		Yes				+	+	
7	M	Yes		+				
8	F	Yes	+		+			
9	F	Yes	+		+			
10	M	No						
11	M	No						
12	F	No						

**H =Hypnotic Complex Session**

**W =Waking Complex Session**

Of the other three subjects who accepted the complex, in two the evidence that there was any connection between the complex and the nonverbal disturbances was of a dubious character. Each case presented some peculiarities of its own which are worth mentioning. One subject (No. 7) who had eight sessions—two complex sessions, one hypnotic and one waking, being added—had the largest group of words associated with the complex of any of our subjects. In the first hypnotic complex session there were 24 *CA*<sub>1</sub> words and 16 *CA*<sub>1</sub> + *NC* words. Yet only three *CA*<sub>1</sub>, and two *CA*<sub>1</sub> + *NC* words were disturbed in the voluntary responses. One of each class had a voluntary disturbance without a verbal disturbance. Likewise there were eight verbally disturbed *C* words, but only one had a voluntary disturbance. In the succeeding waking complex session there was one verbal disturbance on Class *C* and one on *CA*<sub>1</sub> + *NC*. The *C* class had two voluntary disturbances, and the *CA*<sub>1</sub> class had five. In neither session was there an increase of nonverbal disturbance on the other word classes. In such a case it is important to examine the disturbances in the other classes and attempt to discover if these can be related to the complex, paying especial attention to those which were undisturbed in the control sessions. It was found that a few of these could be connected, but the result was not very convincing. The results on the other two complex sessions were essentially the same except that the total disturbance declined somewhat. Another fact about this case was the large increase in nonverbal disturbances in the first hypnotic control session, as against the waking control, the numbers being 18 and 5, respectively. This suggests that there may be a "shock" effect which appears in hypnosis in some cases. This interpretation is supported by the fact that there were but two disturbances in the last hypnotic control and an increase in unusual responses in the first hypnotic control session over the previous waking control—the values being 10 and 2.

Another subject (No. 8) gave somewhat different results. Although there was a considerable amount of nonverbal disturbance in each session, there was little apparent relation to the complex. Verbal disturbances were few. In the hypnotic complex session there were found but five—two on *C* and three on *CA<sub>1</sub>* words. This was true, likewise, of the posthypnotic complex session. The verbal responses were, however, sufficiently specific to the complex story to show its effect. The interesting point about this case is that from an examination of the total disturbances for each session there appears to be a “shock” effect in both the waking and hypnotic states, greater in the former, and which has a differential rate of decline upon repetition, being faster in hypnosis than in the waking condition.

In another subject (No. 9) there were a considerable number of verbal disturbances in both the hypnotic and waking complex sessions but few nonverbal disturbances which could be related to the complex situation in either the hypnotic or waking states. This individual had 12 sessions, six complex and 6 noncomplex, divided equally between the hypnotic and waking states. Four control sessions preceded the induction of the complex, and two were conducted after its removal. The control tests showed an interesting phenomenon—with repetition of the experiment there was a decline of disturbances. This was true of both the waking and hypnotic conditions and is better evidence for the existence of a “shock” effect than the decline in the case of those subjects in which but two controls were performed before the complex was suggested. There is also the possibility that this decline in disturbance is evidence of an “abreactive” effect. Failure to take this factor into consideration, whatever its cause, may lead to questionable conclusions. Luria, we believe, has not taken sufficient account of it in his studies of students before and after school examinations, criminals before and after confession of a crime, etc., (1930, esp., pp. 43-128), and for that reason the differences may not be as marked as he indicates. Along with repetition went a slight reduction in reaction-time means and a shrinkage of scatter about these means. (This same general effect was noted in three other cases in which control repetitions were obtained.) Because of our failure to obtain many nonverbal disturbances we allowed this subject to keep the complex overnight and repeated the hypnotic and waking sessions the following day. The result was a slight decline in total nonverbal and verbal disturbances. The next day we tried to reinforce the complex by repeating the suggestion to the subject. This resulted in a slight increase in both types of disturbances, bringing them back to about their original level. (In another subject reinforcement was tried with much more positive results—i.e., a great increase in disturbances, the effect being especially marked in hypnosis on nonverbal disturbances.)

It seems certain, then, that with repetition one has a reduction in disturbances during the complex sessions. An abreactive factor, a forgetting factor, or a decrease in “shock” effect, must all be considered as possible causes for this decline.

The levels-of-discharge hypothesis which we have suggested in this paper is consistent with results obtained on all the subjects who accepted the complex. Stated broadly, the hypothesis implies that if affective excitation created by a conflict is not discharged

completely at one level, it ought to appear at another. In terms of the present experiment, if the affect was not totally released in giving a verbal response related to the complex, there ought to be a nonverbal (voluntary, involuntary, or respiratory) disturbance. This may occur with or without a lengthened reaction time. The reaction time would be increased on those items in which there was some inhibition (conscious or unconscious) of the verbal response. The time would not be lengthened if a response related in some way to the conflict was either adequate or inadequate to discharge the affective excitation.

It should be noted that Subjects No. 2, 3, 4, 5, 6a, and 6b give motor evidences of a conflict in hypnotic states, a point which we discussed in connection with Subject No. 1 when we analyzed in detail the results obtained from him. The motor disturbances were much more marked in these cases than in Subject No. 1. Subjects No. 1, 3, 4, 5, and 6c gave similar evidence in the waking states. In the hypnotic states Subjects No. 1, 7, 8, and 9 did not give motor disturbances, and in the waking condition Subjects No. 2, 6a, 6b, and 7 did not show many nonverbal disturbances. It may be argued, as indicated previously, that the failure to give motor disturbances in the hypnotic or waking states in these subjects shows the absence of conflict.

The levels-of-discharge hypothesis we have advanced, on the basis of our experiments, is an extension of the Luria theory as we have stated it. Motor disturbances occur, according to Luria, when there is an inhibition of the verbal response or when there are large amounts of conflict-excitation present. Our hypothesis assumes that motor disturbances will appear when there is inhibition of the verbal responses. However, motor disturbances may or may not be found when the conflict arouses large amounts of excitation. If the verbal response is adequate to discharge this excitation, there will be no motor disturbances, but if the verbal response is inadequate, then motor disturbances will appear. We have attempted to account for the failure to obtain motor effects when the subject had a conflict in this way.

Of the remaining three subjects, two definitely refused to accept the complex (Nos. 10 and 11). Both were given the same complex, which was of a serious nature. As medical interns they were supposed (in the story suggested to them) to have been anxious to acquire proficiency in the technique of the cisterna puncture, practicing on patients who had just died. Through a mistake in the location of the bed in a poorly illuminated ward, they performed the puncture on a comatose patient instead of a dead one, and due to faulty technique the vertebral artery was pierced by the needle. An internal hemorrhage resulted and death ensued. Each had gone from the ward without making a report of the accident. After we had finished the experiments, we questioned the subjects and discovered that they had not believed that they were involved in the complex situation. One said that the behavior of the person in the story was so different from his own that he could not imagine himself as committing the action, although he tried hard to believe it. The other subject reported that after the suggestion of the story he had had a mental picture of himself performing a cisterna puncture, but that this was entirely dissociated from the complex. The whole situation had seemed very real to him, but he had known that he had not gone on the ward in the evening to perform the operation. Both of these

cases, however, showed an increase in disturbances in the complex sessions. These disturbances fell almost entirely on words classed as *N* and in one case to a slight extent on *NC*. In one case the increases appeared largely as respiratory disturbances; in the other they were scattered among all the nonverbal aspects. Luria has spoken of an increase in respiratory disturbance as indicative of "trauma," by which he means those cases in which the person has reacted to a "shocking" experience. He contrasts these with those in which the individual has taken a part in some act which, if contrary to the personality trends of the person, leads to a conflict. The implication of the results in these two subjects is that to produce a conflict the complex act must be one possible for the subject to imagine his doing.

The third case (no. 12) in which negative results were obtained, from the standpoint of accepting the complex, involved the failure to mail a roommate's letter of application for a graduate school fellowship until after the final date for application had passed, while the subject mailed one of her own and obtained the same fellowship. This subject explained after the experiment that the account as stated had not been entirely logical and that she felt it was artificial. She had elaborated it with numerous details to make it more credible. In the posthypnotic complex state she was aware of a desire to let her mind dwell upon events that might have happened in the trance state; by so doing she thought she might rid herself of something unpleasant. Yet she felt vaguely that she ought not do this since it might disturb the hypnotic situation. Complex removal was accomplished in her in the waking state by suggesting that she recall the story, and this she was able to do. It is our impression in this case that the acceptance of the story was more intellectual than emotional. There was a slight increase in disturbances in complex sessions, appearing in the hypnotic state on *N* and *NC* words almost entirely. In the waking complex session there was a small increase over the hypnotic complex session caused by disturbances appearing on *C* and *CA<sub>1</sub>*, words. This makes it appear that some conflict has been set up. The most striking thing about this subject, however, was the large number of unusual verbal responses. By unusual responses we mean those which are individual to the subject as compared to those expected from a group of persons living in a similar environment. In the case of the words which we took from the Kent-Rosanoff list we designated as unusual those responses which had a very low or zero frequency, unless the subject's occupation and habitat made the response seem appropriate. (In the subject whose case we presented in detail [Table 1] the response "sigh" to the stimulus whistle No. 38 was considered as unusual. This was true also of the response "me" to the stimulus *persecute* No. 71.) The values ran as follows: Session I, waking control—7; Session II, hypnotic control—11; Session III, hypnotic complex—18; Session IV, hypnotic control—9. The majority of these fell on the word classes *NC* and *IV*. An examination of the individual responses which appeared in Sessions III and IV which had not occurred in Sessions I and II showed that some could be accounted for as *NC*, some as related to the complex, and some as influenced by both. This analysis was made in the same way as in the attempt to account for all the disturbances in the sample case. Although the numbers dealt with are small, they suggest that the increase in unusual responses may be augmented directly by the complex, or indirectly through the sensitization of *NC*.<sup>23,24</sup>

## CONCLUSIONS

The outstanding difficulty of the technique is the more or less speculative method which must be resorted to for the explanation of nonverbal disturbances not clearly related to the complex. For more exact experimental investigations one certainly should know more about the personalities of the subjects than we did. It is likely also that the list of neutral words would vary from subject to subject. An attempt should be made to secure subject constancy rather than constant conditions for all subjects. This would make it possible to attack a number of problems on a more objective basis, some of which are here presented.

1. Must a subject be aware of a conflict to obtain voluntary disturbances? Our data offer arguments for, but mainly against, this possibility. We believe that Luria's point both ways also. However, he seems to hold for the necessity of awareness to obtain voluntary disturbances.<sup>25</sup> The problems dealing with repression and suppression of conflicts and Luria's concept of "functional barrier" are involved here.
2. To what limits can the technique be carried to reveal the "natural complexes" of a subject? Our data suggest that what we believed were natural complexes are disclosed especially during the first experimental sessions.<sup>26</sup> In any attempt to study natural complexes the complications introduced by what we have termed the "shock" effect must be considered. Both problems are probably related to personality types. Luria has suggested in another connection that there are what he calls "reactive-stable" and "reactive-labile" personalities. It is probable that natural complexes will disclose themselves more easily and shock effect be greater in the latter type.
3. Can one get information about the interrelationship of conflicts? Our material suggests that in some subjects the artificially induced complex may cause at least temporary disappearance of the natural conflicts, and in other subjects enhancement of the natural complexes. Also in this connection we found that the *NC* words carried fewer nonverbal disturbances after the removal of the complex than before its induction. Does the removal of one complex have a general "abreactive" effect upon the subject, or is the apparent "abreaction" due to mere repetition?
4. Can one study by this method the kinds of objects and situations to which complexes attach themselves? Witness our *CA<sub>1</sub>*, *CA<sub>2</sub>*, and *CA<sub>1</sub> + uc* word classes. This problem is closely related to that of symbolization.
5. Are there different levels of affective discharge? If so, under what conditions does one level rather than another carry the discharge? What relationship obtains among the various discharge levels? Is there a hierarchy? Can one level become a surrogate for another? Our results indicate that the more discharge at a verbal level, the less at a nonverbal level, and vice versa. It must be remembered,

however, that these differences were quite marked between the hypnotic and waking states and may be partially due to hypnosis.

6. Can a distinction be made from the pressure curves alone between affective conflicts and those which are at a more intellectual level—e.g., the attempted solution of difficult intellectual problems? Or is affect at the basis of both types? Luria has made some beginnings in this direction (1932, p. 205-239).
7. Can a complex be induced by direct-or by indirect-waking suggestion? An example of the latter might be that in which a person is made the subject of some unpleasant rumor by a group of persons.
8. What correlation would there be between sympathetic variables such as heart rate, blood pressure, galvanic skin reflex, etc. and those studied here? In this connection it would be well to know more about gross movements of the subject which may or may not be associated with affect.
9. What are the possibilities of this method in the study of conflicts as revealed during the course of the psychoanalytic interview? It would seem that data of theoretical value could be gained from such an investigation.
10. What is the effect of fatigue and toxic states in making conflict material more available? Luria has suggested that the regulating ability of the “functional barrier” is lowered during fatigue (1932, p. 384).
11. Under what conditions do perseverative effects appear? Do they tend to appear at one level more than another? There is some indication from our data that perseveration tends to appear at a level lower than that of the level of the preceding disturbance; for instance, if the disturbance is verbal, then the perseverative disturbance tends to be voluntary, involuntary, or respiratory.
12. What is the effect of hypnosis on the individuality of verbal responses? (This is a question not connected directly with the Luria technique but was suggested by our experiments.) There seemed definite indications that hypnosis increased the individuality of the responses, as was seen from a comparison of the means of the frequency ratings by Kent-Rosanoff standards on  $N$  words.<sup>27</sup> However, we are not certain that this is caused by hypnosis, since in those subjects in whom we had a repeated waking control there was also a considerable fall in frequency. Yet there were three subjects in whom the frequency-decline from waking to hypnotic states was so marked that we feel we may be dealing with personality types in this respect. In setting up an experiment of this kind it would be necessary to take the “shock” effect on individuality of response into account.
13. What is the effect of a complex on the individuality of verbal responses? This might be studied from the point of view of Kent-Rosanoff frequencies or some autogenous standards such as a frequency table built up on a number of

repetitions of the stimulus word series for each subject. There is some indication in our material that a complex individualizes the responses on N words in the waking state and makes the responses less individual in the hypnotic states.

## **SUMMARY**

In an attempt to test the validity of the Luria method of detecting affective conflicts, one of his experiments was repeated. A complex was induced hypnotically. Verbal, voluntary, involuntary, and respiratory responses were studied. Four male and eight female subjects were used. The results obtained and the interpretations suggested are the following:

1. There was evidence that nine subjects accepted the story told them as something they had done and that it produced a profound reaction in them.
2. In six of these nine subjects some nonverbal (motor) aspect of the Luria technique revealed the presence of the conflict in either the hypnotic or waking states. These subjects in the hypnotic states tended, in general, to give verbal responses definitely related to the conflict with relatively few nonverbal disturbances. In the waking state the relative importance of the nonverbal disturbances increased over the verbal. The hypothesis is suggested that there may be "levels of discharge" so that if excitation created by the conflict is not discharged verbally, there is a spread to voluntary and involuntary motor levels. An implication of this hypothesis is that the motor aspects of the Luria technique sometimes may not reveal the presence of the conflict.
3. In the three other cases, those of subjects who accepted the story suggested to them, the evidence that the Luria technique revealed the existence of a conflict was lacking or was of a dubious character. These three cases are discussed with special reference to the effect of the artificial conflict upon their verbal responses.
4. The results from the three subjects who refused to accept the complex suggest that the reproachable act must be of such a nature that the subject can plausibly conceive of his participation.
5. Data collected from repeated sessions on the same subject indicate that there is a "shock" effect which appears chiefly in the first session as a large number of motor disturbances and declines upon repetition. This "shock" effect must be evaluated properly before valid conclusions in this type of experiment can be drawn.
6. Repeated experimental sessions on the same individual while he had the conflict showed a gradual decline in motor disturbances from day to day, pointing to an "abreactive" factor or a forgetting factor.
7. Certain other theoretical implications of the experiment are discussed, and a list of problems which may be approached by the Luria technique are included.

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<sup>1</sup>The division of labor in this study was as follows: the problem was set and the data analyzed by the first two authors (psychologists); the hypnotic work and organization of the complexes was done by the third author (a psychiatrist); and the experimental work was performed by the first author.

<sup>2</sup>In general we shall adhere to Luria's terminology in this paper.

<sup>3</sup>Luria argues that previous work on affection and emotion has yielded disappointing results because there was no intimate relationship between the affect and such physiological expressions as blood pressure, heart rate, respiration, etc. According to Luria the expressiveness of any motor system will depend upon its degree of inclusion in the psychological structure where the conflict is located, hence the preferred hand is selected to make the voluntary pressures because of the close relationship between the speech centers and the neural control of the preferred hand.

<sup>4</sup>This exposition is our attempt to state the Luria theory succinctly. Other attempts may be found in recent reviews of Luria's latest publication (1930): Brown, J. F., *Psychol. Bull.*, 1933, 30, 376-381; Kubie, L. S., *Psychoanal. Quar.* 1933, 2, 330-336; Geldard, F. A., J. J. *Gen. Psychol.* 1933, 9, 485-487; Taylor, W. S., *J. Abn. & Soc. Psychol.*, 1934 (to be published).

<sup>5</sup>The work was done during the years 1930 to 1932.

<sup>6</sup>The 90 other words consisted of 66 from the Kent-Rosanoff Association Test (1), which give high frequencies of "most common" responses and which might be considered as neutral in character, i.e., generally without emotional tone; five we believed significant for schizophrenic patients—words 10, 31, 46, 65, and 85; five significant for psychotics in general—words 6, 13, 34, 58, and 71; and five words which are often of affective value for normal individuals—words 19, 37, 55, 74, and 91. (Words 37 and 91 appear also in the Kent-Rosanoff list.) The remaining eleven words are "double-barreled," that is, they may easily be taken in more than one sense. These were Nos. 2, 4, 22, 43, 62, 63, 80, 90, 93, 95, and 100. (Words 25, 75, and 82 among the Kent-Rosanoff group may also be considered as "double-barreled.") Since our ultimate purpose was the application of the procedure to psychotic patients, we introduced the affective and "double-barreled" words, planning to use the responses from the normal subjects as control material.

<sup>7</sup>Our tambour system, while not quite like that of Luria, is not different in its essential requirements.

<sup>8</sup>All the hypnotic work was done by the psychiatrist. Hypnotic rapport with the subject for experimental procedures was transferred to the experimenter, the same instructions being used on all subjects. The psychiatrist kept all subjects under observation for at least a month to note any possible residual effects of the experiment. (None were observed.) Close supervision was particularly maintained in those cases in which the subject was allowed to keep the complex overnight. All trances were of a profound somnabulistic type, characterized by dissociation and, with one exception which will be discussed later, apparently by total amnesia for trance events. Administration of the complex was achieved by two sets of instructions identical for all subjects. These were planned to prepare them to "recall" the complex as an actual memory and to strengthen their acceptance of this "memory" and their emotional reaction to it. Removal of the complex was accomplished by the hypnotist's reviewing the preliminary instructions, the story, and the final instructions, indicating the falsity of the whole account and allowing the subject to verify in his own mind the unreality of the entire complex story. This was—had to be—done in both the trance and waking states.

<sup>9</sup>Each session took about 15 minutes. The stimulus words were given as rapidly as the experimenter could write down the verbal responses, except when a disturbance appeared. In the latter case the disturbance was allowed to subside before the next stimulus was given.

<sup>10</sup>This was done some time after the conclusion of the experiments. In the present case there were six "Complex-Associated" words of the second type. The stimulus word *dark* (No. 9) elicited the response "room" in the hypnotic complex session. This was so classified because the subject informed us that he had placed the complex situation in a poorly lighted room to make the action more plausible. The response "beautiful" to *Fairy* (No. 63) was thought by us to have come about through "girl"—i.e., *Fairy* ⇒ girl⇒beautiful. (The attractiveness of the girl had been emphasized in the complex story.) *Guilty* (No. 58) yielded two unusual reactions in the complex sessions, "self-conscious," and "no." These, responses might be related to the emphasis on the loss of self-respect in the complex. *Persecute* (No. 71) as stimulus, with the unusual response "me," may fall into the same context. The subject reported that the response "necklace" to *neck* (No. 80) resulted from his visualizing the girl in the story as wearing a necklace. The responses "stores" and "display" to the stimulus *street* (No. 96) may have been connected with window displays of new dresses, since the fact that the girl was wearing a new dress was stressed in the story.

<sup>11</sup>Hereafter we shall refer to the word classes by the following symbols:

*C*—Complex

*CA<sub>1</sub>*—Complex-Associated—First Type

*CA<sub>2</sub>*—Complex-Associated—Second Type

*NC*—Natural Complex

*CA<sub>1</sub> + NC*—Complex-Associated—First Type + Natural Complex

*N*—Neutral

<sup>12</sup>An attempt was made to determine which reaction times might be considered disturbed. This was first done by distributing the reaction times of every session of each subject and computing the S.D. However, because of the illegitimacy of such computations on a heterogeneous population and because of the skewed distributions which we obtained in many cases—1.5 times the S.D., which we set as our criterion, fell outside the limits of the distribution—this attempt was given up. We finally took those reaction times which seemed to stand apart from the rest of the distribution. Usually this gave four or five disturbed reaction times in a session.

<sup>13</sup>We recognize that in using the word *disturbance* for both verbal and nonverbal effects we are not being consistent. In the former case we, are using the word in the sense of a *change* in response in the direction of the complex, in the latter in the sense of a *disorganized* response. However, since the term is convenient, we are continuing its use in both senses.

<sup>14</sup>A refined statistical treatment of the data was attempted, but we came to the conclusion that this was premature because of the qualitative stage of the technique and the exploratory nature of the experiment.

<sup>15</sup>These percentage figures are arrived at by dividing the actual number of disturbances by the possible number of disturbances. Since there are 25 *C* and *CA<sub>1</sub>* words, the possible verbal disturbance is 25. However, since each word may be disturbed nonverbally in the voluntary, involuntary, and respiratory aspects, there are 75 possible nonverbal disturbances. The total possible nonverbal disturbance on all other words together is 225. Reaction time is excluded since the standard we used was relative to the whole distribution of reaction times, so that only a few long times for each session could be marked as disturbed.

<sup>16</sup>The actual number probably depends upon many factors such as the strength of the complex, the nature of the complex itself, its relation to the stimulus words, and personality traits.

<sup>17</sup>It is possible to urge that the subject had little or no conflict in the hypnotic state because the complex was given to him in this condition. Thus, by virtue of having heard the story, without assuming personal responsibility for the act, he was set to give verbal responses related to the complex with no affect necessarily associated with them. It should be noted, however, that an attempt was made, in the hypnotic instructions which were used when the complex story was told to the subject, to associate affect with the story. It was repeatedly emphasized to the subject that he had committed an act which made him feel miserable. The subjects in general were restless after the induction of the complex and gave one the impression that something distressed them. It is interesting also to examine the verbal reaction times of the *C* and *CA<sub>1</sub>* words in Session III. The mean of the *C* words is 2.6 seconds, being shorter than the mean of the

100 words, which was 3.0 seconds. None of these words carried any nonverbal disturbances. A reaction time mean on the *C* words which is close to the total mean of the whole stimulus word list is consistent with both the levels-of-discharge hypothesis and the "nonaffective set" view. That is, there is no reason in either case why any delay should take place. The reaction process simply runs its normal course, discharging more affective excitation in the former case than in the latter. The *CA<sub>1</sub>* words have a mean of 3.2 seconds. Of the 15 words in this class, 12 have verbal disturbances. It is interesting to note that three of these 12 have nonverbal disturbances, words No. 45, 48, and 85, and each one has a long reaction time, the values being 4.4, 5.1, and 5.0 seconds, respectively. This result would seem to imply that there was inhibition of the verbal response which was reflected in the nonverbal aspects as disturbances. The motor responses give some evidence of conflict in the hypnotic state. Unfortunately there are only a few instances in this subject, so that the question cannot be answered decisively. In some other cases the issue is clearer, however, and we shall return to this topic later.

<sup>18</sup>We have kept the class separate, however, since there are some nonverbal disturbances in other sessions which may be due to *NC*.

<sup>19</sup>There are numerous disturbances which are not accounted for on the basis of a relationship to the induced complex or to natural complexes. One might attempt to explain these disturbances by the following methods. Often it is impossible to make a satisfactory decision. Some of these methods apply to all sessions and some only to particular sessions. Those which apply to *all* sessions are the following: (1) Perseveration effects (disturbances appearing on words following affective stimulus words), which may be both verbal and nonverbal or either one separately. If the perseveration is verbal and the subject gives a response which is related to the complex, then it would be classed *CA<sub>1</sub>* but if it is unrelated, we would be unable to tell whether or not it is a case of perseveration. There is the possibility, however, that perseveration may make the verbal response unusual. The clearest example of perseveration in a nonverbal disturbance would be that which follows a verbal or nonverbal disturbance and which appears on an *N* word. (2) Cases of unusual stimulus words to which the subject has difficulty in giving a response, or cases where the subject inhibits the first response which occurs to him but which is not connected with a conflict. Here one would expect longer reaction times. (3) Transitory "natural-complexes"—those which have arisen just prior to a particular experimental session and which were not present at the next session. (4) Chance disturbances due to movements of the subject because of physical discomfort of some kind. One may raise the question here of the relationship of such movements to affective stimulus words. Our data on this point are not sufficient since a semiopaque curtain separated the subject and the experimenter through which only gross movements of the former could be detected. The subject was unable to see the experimenter because the latter's corner of the room was darkened. (5) Natural complex situations unknown to us.

The explanations which apply to *particular* sessions are the following: (1) Responses which are related to the complex, but which we did not detect. These could be *C*, *CA<sub>1</sub>* or *CA<sub>2</sub>*, *C* and *CA<sub>1</sub>*, in those cases in which the response was the same as that of the first control sessions but in which the subject ascribed new meaning to the stimulus word, relating it to the complex; *CA<sub>2</sub>*, in which we were unable to establish the associative links. This should apply especially to complex sessions and to some extent to control sessions after the removal of the complex (see 5 below). (2) Natural Complex situations, the thresholds of which have been lowered by the artificial complex so that words not marked *NC* become disturbed nonverbally. This should apply primarily to complex sessions. (3) Disturbances which are reactions to hypnosis itself and not the complex as such. These might be due to two different factors. The words which were used by the hypnotist in putting the subject into the trance, e.g., "Sleep," might become disturbed if the subject had developed any antagonism toward the hypnotist because the unpleasant complexes were suggested in hypnosis. The other factor is the possibility of ambivalence toward hypnotism. One would expect such disturbances to appear largely in the waking complex sessions and perhaps in later waking control sessions, since in the waking state rapport is probably not as good as in the hypnotic state. (4) Disturbances due to "shock"—those arising from the subject's apprehension in a new situation in which he does not know entirely what is expected of him. This is mainly relevant for the first session. One speculates in this connection whether or not apprehensiveness in a new situation sensitizes the "natural complexes" of the individual. (5) In the control sessions after the complex removal one has the possibility that there are residuals of the complex. Also, if there has been an enhancement of the subject's natural conflicts, disturbances on *NC* words might be found here. In attempting to account for disturbances falling on *N*

words we shall point out which of the above explanations seem the most likely to us insofar as we have any basis for our conclusions.

<sup>20</sup>An analysis of the verbal responses of the complex sessions indicates that there has been such a shift toward unpleasantness from the first control session; cf., e.g., in Session III, Nos. 38, 48, 61, and 98.

<sup>21</sup>Another interesting point with regard to Session IV is that the subject showed one of the general behavioral characteristics which we were observing. On No. 89 ("Tobacco-cigarette"), a CA<sub>1</sub> word, the subject sighed deeply.

<sup>22</sup>In this subject the instructions were altered the third time the experiment was performed. Instead of permitting her to have a posthypnotic amnesia for the complex story, which was the usual technique, we told her while hypnotized that she would be aware of the complex posthypnotically but would not dare to think about it, although it would cause her to worry greatly. The increase in voluntary disturbances would seem to imply, if the instructions were followed, that the subject must be aware of the complex to manifest such disturbances. Luria has also commented on this point (1932, pp. 149-161), maintaining that if the complex is removed from consciousness, it is also insulated from the motor area since the two have been combined functionally by the technique. On the other hand, in the other five successful cases posthypnotic amnesias were present, and all of them (one after reinforcement) showed a rise of nonverbal disturbances in the waking complex sessions. When these sessions were completed, the subjects often manifested surprise about some of their verbal responses which related to the complex. Luria has also noted this (1932, p. 136). Whether the surprise of the subjects was genuine or was in the nature of rationalizations based upon some knowledge of the complex we are unable to state definitely. Our impressions is that the surprise was real. Luria, however, argues that each critical stimulus word makes the complex conscious, at least partially, and hence disrupts the motor responses. His evidence in this connection is based on continuous free association experiments in which the subject eventually got around to giving responses related to the complex. These were accompanied by motor disturbances. Our material indicates that both conscious and unconscious conflicts may be revealed by the technique. This question is probably connected with the strength of the conflict and the intimacy of the relation between it and the motor response.

<sup>23</sup>The general result on all cases was that four subjects showed some increase in the number of individual responses in the first hypnotic control session as compared with the first waking control session. Three of these four showed increases in the first hypnotic complex session and three showed increases in a waking complex session over the hypnotic complex session.

<sup>24</sup>Besides the aspects already discussed, additional analyses were made of the following: stereotypy, echolalia, individuality of response by autogenous norms, and disturbances of the ascending and descending limbs of the voluntary responses. However, we are not reporting on these aspects in this paper.

<sup>25</sup>The ambiguity of the term "awareness of a conflict" must be pointed out. We find it difficult to determine what Luria means in his discussion of this point (1932, pp. 149-161). There seem to be three possibilities: awareness of the presence of affect, awareness of the situation connected with affect, awareness of why the situation arouses affect. In our series the subject (6a, 6b, 6c) in whom "awareness" was necessary seems to favor the last possibility.

<sup>26</sup>Olson and Jones (1931) have found that religious, political, and social attitudes may be studied by the Luria method.

<sup>27</sup>The mean of the first waking as compared with the first hypnotic was 34.33 higher and had a Fisher's 't' of 4.030, a value yielding a probability of less than 0.01. This means that the difference was significant.

# A Study of an Experimental Neurosis Hypnotically Induced in a Case of Ejaculatio Praecox

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The experimental investigation of the clinical problems of personality disorders presents an interesting but difficult task. Most studies on such problems have been done by psychoanalysts acting chiefly in the role of therapists. For this reason purely experimental work has been neglected because of the necessity of abiding by prescribed rules and definite concepts. However, students in this clinical field, foremost among whom are the psychoanalysts themselves, are becoming increasingly aware of the need for a systematic technique which will lend itself to laboratory proof as contrasted with the present empirical proof of subjective and clinical experience. As an approach to the experimental study of personality disturbances, a case of ejaculatio praecox was selected and subjected to a laboratory procedure intended to yield some information regarding the psychological mechanism termed *abreaction*.

The technique of experimentation was suggested by the well-established clinical fact, both in medicine and in psychoanalytic therapy, that recovery from one illness (or conflict) frequently results in the establishment of a new physiological equilibrium (or "redistribution of libido"), thereby permitting the favorable resolution of a second concurrent and perhaps totally unrelated illness (or conflict). Of similar influence was the well-known fact that an intercurrent disease may exercise a favorable effect upon the original illness—for example, malaria in paresis. Consideration of these ideas suggested their adaptation to the case in hand at a psychic rather than the usual somatic level. It was determined to give the patient a second illness, which was to be a neurosis so formulated that it might symbolize or parallel the original difficulty, and might be expected to arouse similar or possibly identical affects. The assumption was made that such similarity or identity of affects would establish some dynamic relationship between the two neuroses, possibly through identification, or perhaps through an "absorption" of the one conflict upon the other; and that when the patient, by virtue of the experimental situation, was forced to relive, abreact, and resolve the conflict of the induced neurosis, there might occur a transference or generalization of the abreactive process to the original difficulty. Or perhaps the abreaction and resolution of the induced conflict might establish a new attitude or organization of the personality. At all events the immediate experimental purpose was to establish a dynamic interrelationship of the two neuroses and to induce a readjustment of the personality.

The subject of this experiment was a single white male, 25 years old, who possessed a degree of doctor of philosophy in psychology. In addition he possessed a fair knowledge of clinical psychology and was well acquainted with the author's hypnotic techniques and

methods, since he had been acting as a hypnotic subject for the author and had been used extensively in experimental work for a period of a year before he disclosed his complaint. Finally, because his difficulty had become progressively worse, he decided to seek psychiatric assistance, and to this end he complained to the author of *ejaculatio praecox* and requested aid in overcoming this symptom. His story was essentially as follows: Three years previously he had decided to engage in sexual intercourse and had made many attempts, but always with a strong sense of guilt which he rationalized as a feeling that he was desecrating womanhood. From the first he had suffered from *ejaculatio praecox*, but on a few occasions he had succeeded in securing a second erection permitting penetration, but this was always followed by a precipitate orgasm and flaccidity. As these failures had been repeated, he had become increasingly concerned and worried, and his problem had become progressively more acute. Originally the overt act of beginning intercourse had resulted in an ejaculation, but at the time he sought aid, kissing or embracing and sometimes merely casual contact with an attractive girl would cause an erection and precipitate an orgasm with a complete loss of potency. Even when he did succeed in securing a second erection, he had not been able to utilize it either because of another precocious ejaculation or because of a precipitate orgasm upon penetration. He had resorted unsuccessfully to such measures as "prophylactic" masturbation to reduce his sexual tension and to the selection of girls without erotic appeal for him. His emotional reaction to these experiences was one of acute shame, bitterness, self-disgust, and inferiority.

At the conclusion of his story the young man was informed that the author would do no more than to take his case under advisement, and no therapy would be attempted until after a period of consideration; also, he was urged to seek assistance from another psychiatrist. Then, changing the subject matter of discussion, the patient's cooperation was requested for a special hypnotic experiment *which he knew had already been under consideration for some time* and which was to be developed in the course of the next few months. Although not fully content about the postponement of therapy, he continued his cooperation in regard to present and projected hypnotic work. Later, during the elaboration of the plans for the special hypnotic work, the idea of this experiment was conceived and promptly elaborated for investigation. No intimation of this fact was given to the patient. Instead, he was allowed to continue in his belief that therapy was indefinitely postponed and that the author was wholly absorbed in the previously projected hypnotic work, concerning which the patient had not been given any information. The rationale for this deception was the assumption that any therapeutic results of the hypnotic procedures utilized could be attributed then to the therapy itself rather than to the patient's hopes and expectations. A second gain, an important consideration in hypnotic therapy, was the possibility of hypnotizing the patient deeply for the experiment without making his success as a subject contingent in any way upon his neurosis.

During the course of the experimental work in which the patient had cooperated, he had been trained to accept "artificial complexes." These complexes were fabricated stories of an emotional nature told to the subject while in a profound hypnotic trance as accounts of actual past personal experiences which should constitute definite memories for him.<sup>1</sup>

Utilizing this background of the patient's, a special complex was fabricated for him which, when properly implanted in his mind, would tend theoretically to produce a second neurosis of the type discussed above. This fabricated story, which follows shortly in its exact wording at the time of administration, together with all hypnotic instructions as recorded in full by the attending secretary, is purely a fancy of the author's based upon an actual wish of the patient's to secure a certain academic fellowship.

However, to orient the reader more easily, it may be advisable to indicate as a preliminary measure the symbolism contained in the complex story. The heterosexual situation and its implications are apparent at once. Less clear are the symbolic equating of cigarette with penis and ashtray with vagina, but consideration of the heterosexual drives involved and the emotional forces at play in that particular setting—the man's attraction to the girl, his desire to give her something and thereby to gain satisfaction for himself, the girl's display of herself by means of her artwork, and the parallelism of the catastrophe of this contact with those of past heterosexual contacts—gives rise to a fair plausibility of such identifications.

As soon as the patient had been placed in a profound somnambulistic hypnotic trance of the type characterized by an apparently complete dissociation from all environmental stimuli and by an apparently total amnesia posthypnotically for all trance events and suggestions, he was given the following instructions:

Now as you continue to sleep I'm going to recall to your mind an event which occurred not long ago. As I recount this event to you, you will recall fully and completely everything that happened. You have had good reason to forget this occurrence, but as I recall it, you will remember each and every detail fully. Now bear this in mind, that while I repeat what I know of this event, you will recall fully and completely everything just as it happened, and more than that, you will reexperience the various conflicting emotions which you had at the time and you will feel exactly as you did while this occurrence was taking place.

Now the particular event of which I am going to tell you is this: Some time ago you met a man prominent in academic circles who manifested an interest in you and who was in a position to aid you in securing a certain research fellowship in which you were much interested. He made an appointment with you to see him at his home, and on that day you called at the designated hour. When you knocked at the door, you were met not by this gentleman but by his wife, who greeted you cordially and was very friendly, making you feel that her husband had given a good account of you to her. She explained apologetically that her husband had been called away for a few moments but that he would return shortly and had asked that you be made comfortable in the library. You accompanied her to this room, where she introduced you to a charming girl who was obviously rather shy and reserved and who, she explained, was their only daughter. The mother then requested your permission to go about her work, explaining that the daughter would be happy to entertain you while you waited. You assured the mother that you would be very comfortable, and even now you can recall the glow of pleasure

you experienced at the thought of having the daughter as a hostess. As the mother left the room, you set about conversing with the girl, and despite her shyness and bashfulness you soon found that she was as attractive conversationally as she was pleasing to the eye. You soon learned that she was much interested in painting, had attended art school, and was really profoundly interested in art. She timidly showed you some vases she had painted. Finally she showed you a delicate little glass dish which she had painted in a very artistic manner, explaining that she had decorated it as an ashtray for her father, to be used more as an ornament than as an actual ashtray. You admired it very greatly. This mention of using the dish as an ashtray made you desirous of smoking. Because of her youth you hesitated to give her a cigarette. Also, you did not know how her father might feel about such things, and yet you wanted to observe the courtesies of smoking. As you debated this problem, you became increasingly impatient. The girl did not offer you a cigarette and thus solve your problem, and you kept wishing that you might offer her a cigarette. Finally in desperation you asked her permission to smoke, which she granted very readily, and you took a cigarette but did not offer her one. As you smoked, you looked about for an ashtray, and the girl, noticing your glance, urged you to use the ashtray she had designed for her father. Hesitantly you did so and began talking on various topics. As you talked, you became aware of a rapidly mounting impatience for her father's return. Shortly you became so impatient that you could not enjoy smoking any longer, and so great was your impatience and distress that instead of carefully putting out your cigarette and then dropping it in the ashtray, you simply dropped the lighted cigarette into the ashtray and continued to converse with the girl. The girl apparently took no notice of the act, but after a few minutes you suddenly heard a loud crack, and you immediately realized that the cigarette you had dropped into the ashtray had continued burning and had heated the glass unevenly with the result that it had cracked in pieces. You felt very badly about this, but the girl very kindly and generously insisted that it was a matter of small moment, that she had not yet given the ashtray to her father, that he would not know anything about it, and that he would not be disappointed. Nevertheless, you felt exceedingly guilty about your carelessness in breaking the ashtray, and you wondered how her father would feel about it if he ever learned of it. Your concern was plainly evident, and when her mother came into the room you tried to explain, but she graciously reassured you and told you that it really did not matter. However, you felt most uncomfortable about it, and it seemed to you that the girl felt badly too. Shortly after this a telephone call was received from the father, stating that he was called away for the rest of the day and asking your permission to see you on a later day. You left the house very gladly, feeling most wretched about the whole situation and realizing at the time that there was really nothing you could do about it.

Now, after you are awakened, this whole situation will be on your mind. You will not consciously know what it is, but nevertheless it will be on your mind, it will worry you and govern your actions and your speech, although you will not be aware that it is doing so.

I have just told you of a recent experience of yours, and as I recounted it to you, you recalled it in detail, realizing the whole time that I gave you a fairly accurate account of the situation, that I gave the essential story. After you awaken, the whole situation will be on your mind, but you will not be conscious of what it is, you will not even be aware of what it might be, but it will worry you and it will govern your speech and your actions. Do you understand? And you do feel badly about this thing.

The patient was promptly awakened from the trance state, and within a few moments he seemed completely awake. He appeared to have a total amnesia, not only for the trance events and suggestions, but also for the fact of having been hypnotized, the usual finding after deep hypnosis. He showed particular bewilderment in orienting himself, since darkness had fallen during the time that he had been asleep. He was engaged immediately in a casual conversation by two colleagues of the author who were present, while the secretary made full notes of all conversation together with a description of the patient's behavior and manner. It is not possible to present this material in its entirety because of its length and because of the necessity of preserving the patient's identity. The significant parts, however, have been abstracted for presentation here.

Three general types of phenomena occurred during the posthypnotic period. The first of these was the domination of every train of thought in the patient by his implanted, now subconscious, complex. Although he conversed fluently on a variety of topics, each one was soon noted to be related to the complex, but in a manner apparent only to an observer who knew the whole situation. Care was taken not to suggest topics related to the complex, and the patient himself made no reference to the content of the complex story itself, nor did any of his utterances suggest any conscious awareness of it. Neither was he given any suggestions which would serve to influence the trend of his behavior. Indeed, the colleague of the author who bore the burden of conducting the procedure was kept uninformed of the author's purposes as a means of ensuring undirected responses from the patient. When the patient was asked about a certain friend of his, he told of that friend's small children breaking bric-a-brac. As the conversation continued, he told of the travels abroad of another friend who had visited art galleries and museums containing ancient painted vases; he spoke of the author's library and the advisability of insurance for personal property; and he laughingly told of an instance of careless smoking by a friend which had nearly resulted in a serious fire. Any topic of conversation introduced by the others present was soon developed by the patient in such fashion that a bearing upon the content of the complex became apparent to the observers. Furthermore, each conversational topic rapidly appeared to become unpleasant to the patient, and he would change the subject repeatedly, only to return compulsively to some remark which could be related easily to the complex.

Secondly, there occurred disturbances in the form of his stream of speech. Irrelevancies, stammering, blocking, loss of train of thought, repetitions, persistence of certain ideas, undue urgency, and sudden strong emphases were all noted frequently. Thus, upon awakening, he began smoking and talking until he suddenly observed a painted earthen ashtray at his elbow, whereupon he twisted uncomfortably in his seat, stammered, lost his

train of thought, but gradually recovered his poise as the author's colleague assumed the burden of the conversation. Later, while talking about traveling abroad, he interjected remarks about the irreparable loss to art occasioned by the breaking of ancient vases and then continued the main topic of conversation without apparent realization of his digression. Again, in mentioning the author's library, he became unduly solicitous and urgent about insurance. In none of these instances did the patient seem to sense anything unusual in his behavior, despite their frequent occurrence. Observation at the time and consideration of the record later indicated that these behavior disturbances of the patient arose not in response to external stimuli but rather from his own intrapsychic state.

The third type of phenomena noted during this period was phobialike, obsessive behavior in regard to ashtrays, as judged by his previous known behavior. When casually handed a substantial, though ornamental ashtray, he received it in a gingerly, fearful manner and appeared to be afraid to use it. Instead, after many hesitant, abortive, and apparently compulsive attempts to flick ashes into it, he put them into the cuff of his trousers in an embarrassed manner. Now and then he would succeed in dusting them into the tray, whereupon he would crush them repeatedly and uneasily with his fingertips, as if to reassure himself about sparks. He held his cigarette butt until it burned his fingers, glanced at the floor and lifted his foot as if to dispose of it in that fashion, attempted to extinguish it in the cuff of his trousers but seemed too embarrassed to do so, made repeated abortive attempts to extinguish it in the ashtray in front of him by tapping the cigarette gently against the tray, and finally searched the room casually until he found a metal dish, wherein he extinguished the butt methodically, over-carefully, examining and reexamining it as if to be sure that it was not still burning. Whenever anyone dropped a used match into a tray, he seemed compelled to retrieve it immediately and to cool it between his finger and thumb before replacing it carefully on top of the ashes. While conversing he examined and reexamined his ashtray in a detached manner, moved it unnecessarily away from the edge of the table and finally put a soft mat under it. Despite all this difficulty in smoking he accepted unconcernedly a cigarette whenever proffered or helped himself to his own supply, only to repeat his phobialike behavior as he smoked.

Having noted this much of the patient's behavior—of which the above is only a brief summary—it was felt that he had "accepted" the complex and had possibly developed in consequence an artificially induced neurosis. He was then questioned directly and urged to give an account of what had occurred since he entered the office. Despite insistent questioning he was able to state only that he had spent the time smoking and conversing with the author's colleagues. No information was obtained suggesting that he had any conscious realization of the fact that he had been hypnotized or subjected to an unusual procedure. Accordingly, he was rehypnotized, and in this trance he was instructed to recall completely upon awakening the entire experimental situation and to discuss freely his reactions, speech, behavior and conduct. It was assumed that by means of this procedure a "removal" of the complex could be effected, since the patient could thus relive it at a conscious level and thereby might gain an insight into his reactions. As he awakened, a casual conversation was initiated which he soon interrupted to ask if he had told the author of a recent unhappy experience of his. He proceeded to relate the story of the complex as the recollection of an actual event, doing so with appropriate emotional

responses, even identifying the father as a man who actually could have played such a role. As he concluded he started, looked bewildered, showed intense amazement, then smiled with relief and understanding, and declared, "Why, that was just a suggestion you gave me—in a hypnotic trance, too!"

After this realization he began to discuss fully the various details of his conversation and conduct, progressing in chronological sequence, each item serving to awaken its successor as a fresh memory. Meanwhile, the secretary made full notes of his discussion and manner and of the questions and remarks addressed to him. He explained that, as the complex was narrated to him, he had displaced, elaborated and falsified true memories, weaving them into the fabricated account, thereby giving the complex story the reality of an actual event. This transformation of the fabrication into a reality for him had been achieved readily upon his identification of the father with a gentleman whom he knew slightly and whom he had wished might play such a role. It was aided further by a strong resentment which he had developed immediately toward the author for having pried into his affairs and having learned about the unhappy incident. Upon awakening, he had felt at ease and comfortable but impelled to talk. As he talked, however, he had become aware of a constantly growing sense of discomfort, augmented by each topic of conversation and by his own remarks and those of others despite the casual, appropriate nature of such comments. He had been astonished to discover his fear of an ashtray, and he had tried to conceal this terror and to overcome it by sheer force of will. At the same time the tray had fascinated and distracted him repeatedly. Although he had tried, he had not been able to reach any understanding of his reactions. He had become even more distressed when he found that the same feeling of terror had attached itself to other ashtrays and even to used matches. "I was just terribly afraid," he declared, "afraid of anything with heat in it."

When asked to describe his emotional reactions in their sequences, the patient stated that, when the complex had been given to him in the trance state, he had reacted to it "just as any normal person would to such a situation. It was a miserable thing to have happen." Upon awakening from the trance, he had not experienced any particular emotions, but as he had begun to talk, he had developed the same sort of emotional state as he recalled having experienced in the hypnotic trance during the administration of the complex. However, as he continued to talk and had experienced blockings of speech and periods of stammering, and had become aware of his intense fear of ashtrays, his emotional discomfort had increased markedly, and he had become "wretched," "miserable," "depressed," "unhappy," "anxious," and "fearful." He described these changes naively by saying that the familiar and pleasant surroundings in which he had found himself had made his emotional distress seem "silly," "foolish," "inadequate," and "reasonless," and that this feeling had impelled him to "reach into past experiences" and to seize upon "embarrassed affects" taken from "past embarrassing experiences" and to "add" these new and stronger emotions to those already existing. This had given him a sense of having improved the situation immeasurably in some indefinable way, but it had made him "feel terrible, awful then." (It had been noted during the latter part of the time in which the patient had the complex that he had become labored and strained in behavior,

speaking with effort, sighing deeply, and perspiring profusely—an observation which had led immediately to rehypnotizing him and “removing” the complex.)

The patient was questioned about the “past embarrassing affect” which he had “added” to the original affects. However, without any apparent effort to evade the question, he launched into an academic discussion concerning the possibility of transference of learning as applied to emotional responses, which did not appear to yield any pertinent information. Neither did he seem to grasp the significance of the question.

Accordingly, he was asked how he felt about the whole situation as he recalled it. He replied, “Well, I’m glad to know that it was just a lot of suggestion and that it didn’t really happen.” He added that his hesitant, fearful manner of trying to use the ashtray must have appeared ridiculous, saying, “Let me show you how I did it.” He proceeded to imitate his previous conduct in great detail, suddenly interrupting himself to say, “Now, I’ll show you how I do it now.” Lighting another cigarette, he tossed the match into the tray as he talked, and finally extinguished his cigarette by crushing the tip against the bottom of the tray and shoving it back and forth through the ashes, remarking with a smile, “Now, I can feel satisfied about it.”

Following this the patient was thanked for his services and dismissed with the understanding that the experiment had been concluded.

Three days later the patient returned to the author’s office in a jubilant frame of mind, declaring excitedly, “I can do it.” When asked to explain what he meant, he stated that on the previous evening he had been in the company of a girl who had responded warmly to his advances. As usual, upon kissing her he had experienced an ejaculation, but instead of reacting with his customary sense of shame and depression, his erotic desire had increased, there had been no loss of his erection, and he had been able to consummate the sexual act, prolonging his pleasure greatly and repeating the act during the night. He was permitted to tell about this experience in detail, after which he began to question the author as to the origin and validity of his “cure.” Noncommittal replies were made and he was reminded that in the past he had succeeded after a preliminary ejaculation. He protested that no comparison could be drawn between past successes and that of the previous evening, which had given him his first sense of genuine sexual satisfaction. Also, his whole psychic attitude and reaction had been entirely new, since he had not experienced any of his customary feelings of fear, shame, and inferiority, but on the contrary he had felt confident, secure, and free. Nevertheless, the author’s disbelieving manner caused him to leave the office in a discouraged, doubtful frame of mind.

Several days later he returned, again jubilant, declaring “You’re wrong, doctor, I am cured.” His story very briefly was that, after leaving the office, he had been much depressed by the author’s doubts, and for two days he had continued in a wretched frame of mind. Finally, in order to know the truth, he had secured a girl and had spent the night with her in his apartment. He had begun his love-making cautiously, and as his partner responded, he had become increasingly ardent. Since no untoward event had occurred, he had lost all doubts and had proceeded to the overt sexual act. During the act a neurotic

fear had developed that he might be unable to have an ejaculation, but this fear had been promptly dispelled by an orgasm. After a rest he had repeated his performance satisfactorily. The next night he had obtained another girl and had confirmed his "cure." (Subsequent investigation into the truth of the patient's story confirmed his report.)

At the close of this account the patient was asked what explanation of the change in him he could offer. He declared that he had no explanation, that apparently he had spontaneously resolved his conflicts, and that he was satisfied to let things remain as they were. The author suggested that he sit quietly and think hard, letting his mind wander at will, and as he did so, to recall all the various emotions he had so often experienced in conjunction with his precocious ejaculations. After a few moments he flushed, moved uneasily, then soon, in a low, monotonous tone of voice said, "I see it now—I put my cigarette in the ashtray and it broke—spoiled everything—I felt terrible—just the same way—I see it now—I was afraid to use the ashtray—I'd try to—I'd pat the ashes to be sure there were no sparks—I'd use my trousers." An expression of amusement and understanding appeared on his face. "But I showed you I could do it. Remember? First, I showed you how I acted when I was afraid, and then I showed you when I wasn't afraid. Remember how I put it out by rubbing it around?" He paused, his reminiscent manner disappeared, and in a puzzled tone of voice he said, "Say, that was that complex you suggested to me—say, that explains a hell of a lot to me—I see through a lot of things now—now I know what I meant when I said I could be satisfied." As an amused afterthought he added, "No wonder my feelings were so awful."

An attempt was made to secure an elaboration of these utterances and to elicit an explanation of his apparent identification of the emotions of his neurosis with those aroused by the fabricated story, but he became so ill at ease and appeared to develop such repressive mechanisms against further conscious insight that it was considered unwise to press questions. The only information obtained was the inadequate statement that "the emotions were just the same" for his *ejaculatio praecox* and the situation of the suggested conflict.

Several months later the patient was asked to read and check the accuracy of this account of his problem. When he reached the paragraph containing his "explanation," he put the page aside, saying, "Do you know, doctor, I can't remember what my explanation was. Let me think." Within a few moments he repeated in total the scene described above, uttering almost exactly the same words. As he concluded, he picked up the page, read it eagerly, exclaiming repeatedly, "That's it, that's it." Again he seemed unwilling or unable to elaborate further, protesting that he had explained the whole matter previously on the basis of the similarity of emotions.

More than a year has elapsed since this experimental procedure. During the first few months the patient indulged freely in sex relations whenever the opportunity offered, with no recurrence of his symptom. Then, after a period of abstinence, he again developed precocious ejaculation, but without the previous emotional concomitants and without loss of his erection, and in each instance he was able to consummate the sexual act satisfactorily. During the last few months he has discovered that a mere recollection of

the experimental procedure will suffice to inhibit a precocious ejaculation, and he is able to function normally. He does not feel handicapped in any way and is well satisfied with his sexual life, and he has not developed any other neurotic symptoms.

## **DISCUSSION**

Careful examination of the above report discloses a wealth of complex psychodynamic manifestations which appear to have been elicited as stimulus-response reactions. From these a number of inferences may be drawn which invite discussion.

Concerning the ultimate soundness of the therapeutic result, there may be legitimate doubt, since the origin of the neurosis and its purposes and function for the personality are not known. However, the fact that the patient can function normally now and can obtain personal satisfactions hitherto impossible, indicates definite and significant changes in his personality reactions of clinical validity. Further, the results suggest that the psychoanalytic theory of pregenital fixation in *ejaculatio praecox*, developed by Abraham (1927), may not be applicable to every case, since in this instance it is difficult to comprehend how the experimental measures utilized could have bridged such a gap in libido development.

Another question concerns the possibility that the previous hypnotic experimentation, by developing suggestibility, capacity for dissociation, and responsiveness to direct or implied suggestions, might have influenced his neurosis by giving him special insights or new methods of expression. During that time, however, no improvement from his neurosis occurred. For the same reason the hypothesis may be excluded that the author's role as combined hypnotist and promised therapist was unconsciously formulated by the patient as one of an authority-surrogate and permissive agent upon whom he could place the responsibility for successful coitus. Further, it may be contended that the mere induction of a strongly emotional state in the hypnotic trance might have constituted a sufficiently vital experience to occasion a reorganization of the psychic economy with a consequent alteration of the neurotic structure. This is negated by the fact that in the previous work he had been subjected to procedures similar to the one used in this investigation which were equally strongly tinged emotionally, though in a different regard. None of these experiences appeared to have had any role other than that of teaching him how to accept suggestions and how to mobilize his affective responses.

An important consideration is the patient's demonstration of the phenomenon of interpolating into a communication one's own feelings, ideas, and experiences. Given a factually baseless communication, he incorporated it into his mental life, reacted appropriately to it emotionally, and apparently transformed it into a vital part of his psychic life. But in doing so, he interpolated into it other and past experiences, ideas and affects of other origin, formulating the admixture into a new emotional constellation of greater inclusiveness and significance, to which he reacted in a new fashion, as judged by his subsequent behavior and explanations. The means by which he achieved this elaboration appears to have been his unconscious response to the equating of the various emotions which were centered around a single object and which were aroused

simultaneously by the intentionally devised relationships, connotations and symbolizations contained in the story of the complex. His vague desire to possess the girl and at the same time to please her, and his desire to smoke and at the same time to give her something which would eventuate in his own satisfaction were integral parts of his general emotional state in relation to the girl. Similarly, his admiration for the ashtray constituted part of his admiration for her, and the expression of a part of his emotional reactions served as a vicarious expression of the other part. This composite nature of his affective reactions formed an emotional background against which one object could be substituted for another to evoke one or another aspect of a common emotion.

Accordingly, the cigarette could acquire thereby the cathexis of the penis and the ashtray that of the vagina with a symbolic representation of the one by the other. That such symbolic values did obtain is indicated by the concluding part of the experiment in which the patient appeared to develop some form of conscious insight. His fragmentary remarks signify an intermingling of ideas and affects, an equation of the emotions from one source with those of another, and an identification emotionally of the suggested conflict with that of his neurosis. It is indicated further by the record of his speech and behavior during the time that he had the complex, and by his posthypnotic discussion, all of which suggests strongly that deep affects not appropriate to the story of the complex were stimulated. Particularly interesting are his naive descriptions of deep emotions, and the physiological concomitants of strong feeling states which he manifested in the first trance state of this experiment—namely, profuse perspiration, deep sighing, and strained behavior.

In this same regard arises the question of whether or not deep affects are amorphous in character and are dependent upon stimulation for definition and for direction into channels of expression. The patient's extreme emotional response to the content of the artificial complex suggests, figuratively speaking, the attachment of an amorphous mass of affect to the relatively simple ideas it contained with a consequent disruption of the personality reactions.

A final question for discussion is the rationale of the patient's explanation of his recovery in terms of the suggested complex. A plausible inference seems to be that, having verbalized the emotions of his neurosis in terms of the trance events during the experimental situation, he had been conditioned to that method of response. Hence, when asked to recall those same emotions and to explain his recovery, he did so in accordance with the established pattern. But as he did so, a new psychic factor—specifically, the mental perspective derived from his successful experiences—gave his utterances a new significance for him, enabling him to declare, "Why, that was the complex—that explains a lot of things to me—now, I know what I meant when I said I could be satisfied!"

### **SUGGESTED PROBLEMS FOR FURTHER INVESTIGATION**

The author is well aware that, however valid the results are in this one instance, no general conclusions concerning the neurosis of *ejaculatio praecox* or its therapy can be drawn from a single case subjected to a new experimental approach. Nor has this account been offered as a possible solution to such a problem. Rather, the purpose of this report is

to direct attention to the practicability of the use of hypnotism as a possibly fertile technique for the laboratory study of the dynamics of human behavior.

Any therapeutic aspects of such study are of secondary value until a better understanding of the processes involved is achieved.

Although used profitably in experimental academic work, there has been a tendency to overlook the feasibility of hypnosis as an investigatory agent in the study of psychodynamic problems. This investigation indicates that hypnotic measures can be used in a significantly productive fashion to elicit dynamic responses and to manipulate psychological processes. Although no absolute conclusions can be drawn from the findings above, certain inferences and hypotheses, previously discussed are warranted concerning the mental mechanisms involved, the dynamic relationships developed, and the methods for determining or influencing behavior and affective responses. These, in turn, suggest a number of definite experimental problems which invite analytical study and of which a few most relevant to this investigation will be presented.

The first of these problems is the practicability of evolving a technique for the development of experimental neuroses in a human subject for laboratory study. The present investigation is not entirely satisfactory experimentally because of some degree of sophistication in the subject. Despite this fact and the crudity of the technique employed, the results obtained suggest significant clinical and experimental possibilities. The study needs to be repeated, however, on a naive subject with a simpler personality problem such as a specific mild phobia, and in connection with a thorough investigation into the genesis of the symptom for the purpose of elucidating the experimental results. By means of this procedure a more comprehensive appreciation of the interrelationships of conflicts and the influence of one complex upon another might conceivably be reached.

A second problem is the possibility of studying the concept of abreaction. An improved technique similar to that used above, but controlled by continuous observation of the subject and by the centering of his behavior around activities less heavily endowed with affective values and social implications, might offer a good approach to an experimental investigation of the nature, mechanisms, and methods of induction of abreactive processes. A counterpart of experimentally induced abreaction may be found in the "living-out" of fantasies in the psychoanalytic procedure, the clinical results of which also suggest the feasibility of studying abreaction in a laboratory setting.

Another investigatory aspect would be that of devising a technique whereby the subject could be induced to select from a communication the material requisite to form a complex. The present experiment indicates that such a selection was made in this study, since the fabricated story symbolized also an Oedipus complex and a sister-incest situation to which the patient apparently did not react. Such a technique might serve materially to disclose natural complexes and to reveal personality trends and types. Huston et al, referred to above, found suggestive evidence that the hypnotic induction of complexes served to reveal natural complexes. Malamud and Linder (1931) have also

made an approach to this problem from another angle by showing pictures to patients and then obtaining reports of their subsequent dreams.

The patient's emotional behavior during the experiment gives rise to the conjecture that affective responses may be "conditioned" somewhat like the conditioning of neuromuscular responses. This might conceivably be accomplished by arousing deep affects upon which, as a direct sequence, a second emotional situation could be created. An illustration of this is to be found above in the establishment of an affectively significant heterosexual situation out of which arose a special emotional state. From such experimentation, by noting sequences, direction, methods of expression, and purposes served, information regarding the genesis, attachment, and interrelationships of emotional reactions might possibly be obtained.

An approach to some of the problems of symbolization is also suggested by this report. The role of similarity of affects in producing symbolic values may be inferred from the patient's account of his recovery. Experimentation designed to attach similar affective tones to dissimilar objects or concepts might conceivably yield information regarding the development of symbolic equivalents. To illustrate, the present experiment might be repeated by arousing the affects of the Oedipus complex, followed by a second emotional situation centered around a fabricated role of authority exercised by the subject. Verbalization of the one situation in terms of the other would possibly indicate the establishment of symbolic values. Or, if the patient's symbolization resulted from the connotations and the relationships of the ideas communicated to him, experimental procedures based on temporal contiguity and association of ideas might give pertinent results.

Another problem is concerned with the question of the development of insight, the factors controlling its growth, its influence upon mental structures, and its function in the psychic economy. The patient studied apparently acquired insights, some complete, others partial, presumably as a result both of the sequences and the nature of his behavior. The same technique, but with continuous observation of the subject and an adequate objective record of his behavior before, during, and after the experiment, might serve to give an appreciation of any progressive manifestations of insight. Or, the omission of certain parts of the procedure, the changing of sequences in the experimental behavior, or the introduction of new measures might determine the relative importance of the various experimental steps. For example, what would have been the ultimate result in this case had the patient failed to demonstrate, "how I do it now," or had he been informed of the experimental procedure by the author instead of recalling it himself?

## SUMMARY

A patient seeking a therapy for a neurosis of ejaculatio praecox was subjected to an experimental procedure wherein an attempt was made to induce in him a second neurosis by means of a hypnotically implanted complex. This complex had been formulated to symbolize or to parallel his actual neurosis. In consequence of this procedure there appeared to result an identification of the induced conflict with his original neurosis and a

fusing of their affective reactions. After the patient had been forced to relive, abreact, and gain insight into the suggested conflict, it was discovered that he had made a clinical recovery from his original neurosis and that he was still able to function normally a year later. A discussion is given in which possible psychological processes and mechanisms underlying the experimental results are elaborated, the ultimate soundness of the therapeutic results is questioned, and emphasis is placed upon the practicability of hypnosis as an experimental procedure in the analysis of personality disturbances. There follows a list of certain specific problems suggested by this study.

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<sup>1</sup>A detailed report of such an experimental procedure may be found in Huston, P. E., Shakow, D., and Erickson, M. H. A study of hypnotically induced complexes by means of the Luria technique. *Journal of General Psychology*, 1934, 11, 15-97.

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# **The Method Employed to Formulate a Complex Story for the Induction of an Experimental Neurosis in a Hypnotic Subject**

Milton H. Erickson

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In 1935 a report was published on the induction by hypnosis of an experimental neurosis in a patient suffering from ejaculatio praecox (Erickson, 1935). The procedure employed was that of fabricating a story which would parallel and symbolize the patient's actual neurosis in terms of an ordinary, credible, but unpleasant instance of social behavior. This story was then told to him while he was deeply hypnotized in such fashion that he would believe it to be a true account of an actual past experience of his which he had repressed completely. The patient's profound psychological and neurophysiological reactions and responses to this procedure and the experimental neurosis he developed were reported in the original article. However, for reasons pertinent at the time, no explanation was given of the process by which this artificial complex was fabricated or of the logic that was employed in attempting to make that story uniquely significant to the patient. Instead, the original worksheets, outlines, and rough drafts as well as the final copy were filed away for possible future use. Recently, discussions with Margaret Mead, Gregory Bateson, Lewis B. Hill, and others on hypnotic techniques of suggestion and methods of interpersonal communications have suggested the possible value of presenting in detail the explanation of how that complex was fabricated. Also, such an analysis seems warranted by the continued experience of the superiority of this general type of technical procedure in inducing extensive changes in the behavior of hypnotized subjects, as contrasted to the less satisfactory results secured from spontaneous, unplanned, haphazard suggestions, or when the same degree of detailed care is not exercised in building up hypnotic suggestions and hypnotic situations. In considering how to devise or formulate a suitable complex applicable to the subject, the task seemed to be essentially a problem of, "It is not only what you say, but how you say it." Under the proposed experimental conditions "what" was to be said had to be a seemingly innocuous and credible but fictitious story of a past forgotten social error by the subject. The content of such a story was relatively simple to determine and required little imagination, since the patient had been a hypnotic subject of mine for over a year and I knew him intimately, I was well acquainted with his family, and I also had professional knowledge of his neurosis. Hence the content of the story was easily made to center around an imaginary visit at the home of an unidentified prominent man. There he was supposedly greeted by the man's wife and introduced to an attractive only daughter, in whose presence he smoked a cigarette and accidentally broke a prized ashtray.

The "how" of telling this story seemed primarily to be a task of so relating the fictitious account that it would become superimposed upon his actual experiential past in a manner

that would cause him to react appropriately to it emotionally, to incorporate it into his real memories, and thus to transform it into a vital part of his psychic life.

This could be done, it was reasoned, by taking the objective items contained in the essential content of the story and so weaving a narrative about them that they would stimulate a wealth and a variety of emotions, memories, and associations that would in turn give the story a second and much greater significance and validity than could its apparent content.

To do this would require a careful choice and use of words which would carry multiple meanings, or which would have various associations, connotations, and nuances of meaning which would serve to build up in a gradual unrecognized, cumulative fashion a second more extensive but unrealized meaningfulness for the story.

Also, the words, by their arrangement into phrases, clauses, and sentences, and even their introductory, transitional, and repetitive uses could be made to serve special purposes for building up emphasis or cutting it short, for establishing contrasts, similarities, parallelisms, identifications, and equations of one idea to another, all of which would build up a series of associations and emotional responses stimulated, but not aroused directly, by the actual content of the complex. Additionally, sharp transitions from one idea to another, sequential relationships of various ideas and objects, shifts of responsibility and action from one character to another, the use of words that threatened, challenged, distracted, or served only to delay the development of the narrative were all employed to formulate a story possessing a significance beyond its formal content.

Additionally, it must be noted that the patient had been a hypnotic subject of mine for a long time and that therefore he had had a wealth of experience in responding to both direct and indirect suggestions. Thus, his experiential background was of a character to enable him to react adequately to the indirect, concealed, and disguised suggestions and significances of the fictitious story.

Supplementary to this is the fact that the hypnotist, in administering the complex to the patient, was fully aware of what he hoped each item of the story might mean to the patient. Hence, the hypnotist's voice in administering that complex to the patient would carry a load of meaningful intonations, inflections, emphases, and pauses, all of which, as common daily experience constantly proves, so often convey more than spoken words.

Essentially, the task, as worked out, was comparable to that of composing music intended to produce a certain effect upon the listener. Words and ideas, rather than notes of music, were employed in selected sequences, patterns, rhythms, and other relationships, and by this composition it was hoped to evoke profound responses in the subject. These responses were to be of a type not only hoped for in terms of what the story could mean but which would be in accord with the established patterns of behavior deriving from the patient's experiential past.

How well this was done, aside from the experimental results secured, is a matter for speculation. No proof can be offered that the explanation of the complex offered is correct, or that someone else, using the same words, could not construct an entirely different explanation. Proof, if there is to be any, can only be inferential at the best. However, continued experience with the greater effectiveness of hypnotic suggestions carefully calculated as to structure, as contrasted to the lesser effectiveness of spontaneous suggestions primarily concerned with an obvious content, indicates that this initial effort at an analysis of an interpersonal communication of a particular type is warranted.

One additional preliminary to the presentation of the explanation of the complex relates to the actual process of composing the story. During a period of several weeks the story was rewritten in various wordings many times before it seemed to be satisfactory. Two colleagues read and discussed the proposed complex story and contributed a number of helpful suggestions for the final wording of it. Other colleagues contributed unwittingly by discussing, upon request, the meaningfulness of sentences worded in slightly different ways. Also, items of fact relating to the patient, such as his attitudes toward his parents, conversational clichés, patterns of behavior, and actual experiences, were all kept in mind and worked directly or indirectly into the story at every opportunity so that it might have a special and unique appeal for the patient.

As a method of presenting the explanation, the story as devised will be given in the first column of Table 1 and the explanation, logic, intended significances, hoped-for reactions and responses will be given in the second column in the form of comments. These are listed as they were formulated for the final draft of the complex. No attempt will be made to show preliminary or partial formulations as they were worked out from one draft to the next. Finally, the reader must bear in mind that these explanatory remarks constitute only pre-experimental formulations of what the complex might possibly mean to the subject and that hence they are not necessarily to be taken at face value. They constitute simply a Pre-experimental effort to determine the possible meanings of an intended specific interpersonal communication in a special situation. In a few instances it was possible to confirm the validity of a number of these comments post-experimentally, but for the most part such confirmation was not actually feasible aside from also being precluded by the experimental situation.

**Table 1**

The Complex	Explanatory Remarks
Now	“Now” relates to the present, the immediate, circumscribed, highly limited present; it will not bear upon the past nor upon the future; it is safe, secure.
as you	“You” is a soft word; the subject is introduced gently.
continue	“Continue” is a most important word, since it

## The Complex

to sleep

I'm

going

to recall

to your

mind

an

event

which occurred

not

## Explanatory Remarks

carries on into the future, it contradicts "now," which relates to the present, and it introduces an indefinite extension into the future. Hence, the subject unwittingly makes a change from the "now" situation into a continuing future situation.

Thus he has the time situation changed and at the same moment is given a command to "continue to sleep," a command based upon the past, including the present and extending into the remote future.

First-person pronoun, which means that anything done is to be done by the hypnotist and that the subject can be safely passive.

"Going" carries on the future connotation of "continue," but enlarges it by bringing both the hypnotist and the subject into the continuation into the future.

"Recall" signifies the past, and we are both going into the future, taking with us the past.

Second-person pronoun, emphasizing that we are both going into the future and taking the past with us.

"Mind" is a selected, important, most important part of him, a part of him related to the past.

"An" means just one, a certain one, and yet is at the same time so indefinite.

"Event" is a specific word; just one event, "an event," and yet, despite its seeming specificity, it is so general that one cannot seize upon it or resist or reject it or do anything but accept "an event."

"Occurred" is a narrative word; lots of things occur, especially minor things.

If the subject wishes to reject, deny, or contradict, the word "not" gives him full opportunity. He can seize upon it and attach to it all of his resistances to an acceptance of the story; it is literally a decoy word to attract his resistances. The sequences are "occurred not"—in other words, "did not occur"—but, even should his resistances seize upon "not," that

## The Complex

long ago.

As I  
recount

this

event  
to you,

you will  
recall

fully and completely

## Explanatory Remarks

decoy is legitimately snatched away by the next two words, and thus his resistances are mustered, mobilized, but left unattached and frustrated.

Actually “not long ago,” — “not” now destroys itself as a negative word; it is positive in that sequence. Furthermore, it is highly specific, but in a vague, general way; when is “not long ago”? Yesterday? Last week? Also “not long ago” is real, since we do have a “not long ago” in our lives; thus a weight of truth is given which will radiate.

First person again, assuming responsibility.

Previously, I was going “to recall,” but in this phrase I immediately withdraw from that responsibility. Now I am only going to “recount,” and “recount” and “recall” are totally different words. Thus the responsibility for “recall,” which was the initial task, is rejected by the hypnotist, who assumes the responsibility only for recounting. Therefore, if the hypnotist recounts, the subject is thereby compelled to recall. Indeed, if the hypnotist can recount, and there can be no doubt about that, then the subject can, actually can, recall; a sophistical but indisputable establishment of the truth of the story to be told.

“This,” like “an,” is a definitive word that cannot be disputed; and readiness to dispute or deny must be held in abeyance.

Again a specific word

Second person; first it was recalled to “your mind,” and now it is recount “to you,” that is, to him as a person. Thus he is introduced so that, in his passive acceptance of the recounting, he, as a person, can assume responsibility.

The subject is called upon to act as a person and at the same time is given a command.

“Recall” completes the shift of responsibility from first to second person, with a final allocation of responsibility for recounting and for recalling.

fully and completely These are distraction words

## The Complex

everything

that happened.

You

have had good reason

to forget

this

occurrence,

## Explanatory Remarks

since they attract attention not to the task, but to the size or quality of the task. Hence, he must first refuse to do it “fully and completely” before he can refuse to do the task at all, and if he refuses to do it “fully and completely,” he is by implication obligating himself to do it at least in part, until he goes through the process of refusing to do it in total. All this takes so much time that there is no opportunity to go through those mental processes permitting a logical rejection of the entire task. Additionally, if he still has resistances to the hypnotic situation, he can mobilize them against these distraction words.

“Everything” is really a threatening word; to tell everything is something one just does not do. So here is an opportunity to mobilize resistance, since, if he is to accept this story, his resistances must first be mobilized as a preliminary to a dispersion. Also, if he refuses to tell “everything,” he is thereby affirming that there is something to tell.

The command to tell “everything” is now seemingly qualified, since it is not “everything,” but just the bald facts of “what happened,” not the meanings or personal implications. Again there is an implication of other things.

Second person, reemphasizing the subject’s role as someone involved.

There is not only a “reason,” but a “good reason,” at that! We all like to think we have a “good reason”; it vindicates.

Now the “good reason” becomes inexplicably transformed into a “bad” reason; “good” no longer is “good,” but is really a bad sort of thing; the kind of reason one likes to forget. Also, “to forget” explains the need “to recall,” and explains the recounting. But what does one forget? Bad things, especially!

Explicit word, intended to reemphasize the feeling of specificity.

“Occurred” was a narrative word, and now the word is “occurrence,” so often a euphemism

## The Complex

but

as I recall it,

you will remember each and every detail fully.

Now

bear this in mind,

that while I repeat

what I know of this event,

you will recall fully and completely

## Explanatory Remarks

applied to bad things one forgets.

“But” always prefacing unpleasant things; “let’s have no ‘buts’ about it,” is so common an expression.

This phrasing is a reprieve, since the first person assumes the responsibility, but he who can assume responsibility can also assign it. Thus, indirectly, the dominance of the hypnotist is assured, and the next words lead to active work for the subject.

More than recall is wanted. Previously, it was “you will recall”; now it is more “you will remember”; furthermore, “remember” is in itself a simple, direct, hypnotic suggestion, similar to the suggestion of “sleep” in the opening sentence. Also, what is to be remembered is “each and every detail,” so refusal to remember has to be directed to each detail, not to the whole occurrence. Thus, “each” and “every” and “fully” are distraction words, directing refusal or rejection to a quality of performance.

“Now” harks back to the first word of the first sentence, a word that could be fully accepted. Thus, utilization is made of that first attitude.

“Mind” harks back to the first sentence again for a similar reason.

“Repeat” is a word which relates to a factual experience in the past, one that really occurred and is known, since otherwise it could not be repeated by someone. Also, the role of the hypnotist is clearly defined and cannot be disputed.

“Repeat” and “know” affirm and establish the truth, but they give an avenue of escape, because the qualification of what “I know” implies that there may be much that “I” don’t know, and therefore something additional that he does know.

This phrasing harks back and reaffirms the original allocation of responsibility to “you.” “Fully and completely” is again a repeated distraction, reinforcing the previous use of those

<b>The Complex</b>	<b>Explanatory Remarks</b>
everything just as it happened,  and more  than that, you will re-experience the various conflicting emotions	words. That meaningful, even threatening word again. A qualification that limits and comforts since it excludes possible personal implications and meanings. Further threatening since “more,” what “more,” is wanted. Still carrying the threat.
which you had at the time  and you will feel  exactly as you did while this occurrence was taking	A hypnotic command carrying compulsion. The thing is now defined as conflicting and as emotional, of which things he had a plenty, all real and, above all, emotional. A specific but unidentified “time” in the past, but a time related to “conflicting emotions.”
Now  the particular event  of which I am going to tell you is this:	a hypnotic command that he is to feel, which carries a threat since it follows “conflicting emotions.” The thing is defined and outlined, his course of action indicated to be a revivification, only that, of a past experience—not a confession, just a re-experiencing of something that took place.
Some time ago  you met a man prominent  in academic circles	Harking back to the opening word, repeated later for its acceptance values immediately after the assignment of a task, and once again repeated here at a similar point. “An event,” “an occurrence,” now becomes a highly specific item. “I” can tell only what little “I know,” a casual statement, transitional in its use, reassuring in its implications. “Not long ago” redefined, but still vague and elusive of contradiction. Indisputably true and acceptable. We like to know “prominent” people, an initial appeal to narcissism. A narrowing of the identification of the man, but safely so!

### **The Complex**

who manifested an interest in you  
and who was in a position  
to aid you

in securing a certain  
research fellowship in which you  
were much interested.

He

made an appointment with you

to see him at his home  
and on that day

you called at the designated  
hour.

### **Explanatory Remarks**

A strong appeal to narcissism.  
A tentative threat, because “position,” synonym  
of power, can be used favorably or unfavorably.

Narcissism reinforced and reassured, but more  
than that, the subject now wants to know, to  
identify, the man, hence is open readily to  
suggestion.

Highly specific but not definitive.  
A true statement in that he was interested in a  
fellowship, actually any fellowship, but this  
statement offers no opportunity to take issue or  
dispute, since each item is progressively  
qualified, and each qualification requires dispute  
before the initial premise can be attacked, and his  
narcissism requires that he accept each time in  
the suggestions. Thus, resistance is dispersed.  
Additionally, the man is “interested,” the subject  
is “interested,” there is a common denominator,  
and the reality of the subject’s interest radiates to  
and substantiates the man’s interest.

A third person taking all responsibility.  
Therefore, the subject can listen receptively,  
since the story is about a third person.

This is a disputable statement, hence is to be  
qualified in more and more detailed and specific  
fashion, thus to preclude any upsurge of  
resistance or rejection, and each little item to be  
added must have a cumulative effect that takes  
the subject ever farther from the essential point.

A qualification as to place.

A qualification as to a specific day that must be  
selected out of the past.

“Designated” is so specific, final, absolute, and  
yet so indefinite.

A final specific qualification for the appointment,  
and it is most important to establish that  
appointment. Thus the subject is led to a home, to  
“that day,” to a “designated hour.” With such  
detail not even a thought can flash obstructively  
in his mind, since the only measure open to him

### The Complex

When  
you  
knocked at the door  
you were met  
  
not  
by this gentleman  
  
but his wife  
  
who greeted you cordially and was  
very friendly,  
  
making you feel

### Explanatory Remarks

in the hypnotic situation is to reject a “designated hour” of a specific day at a home of an interested man who, narcissistically, he wanted. Thus, an idea has been offered, and its acceptance literally forced. Therefore, an opportunity to resist something about this rapidly growing story must be given him in return for being forced to accept some ideas.

A challenging word, anything can happen “when.”

Second-person active, giving opportunity for him to get set for action.

A brief item of detail, momentarily obstructing action.

“You” is second-person passive—thus he is forced from the active to the passive role. “Were met” is a dogmatic declaration which is the opening for all resistance and rejection, an opportunity to interpolate from past experience, a wide-open door for dismissal of the entire story, and thus a chance for him to construct his own account.

A negative word, emphatically negative.

Apparently, it is unnecessary to deny, reject, or dispute the story, since the hypnotist is doing that by the implications of “you were not met.” Thus, the subject’s resistances have been built up and then lulled into inaction, rendered futile by the negations employed.

“But” used a second time, this time in close association with a woman to reinforce possible previous unpleasant associations, in a wife is a sexualized woman. Also, this is another disputable statement, but before he can remobilize his resistances, the to a situation is completely changed by the next words.

A tremendous appeal is made to his narcissism, already stimulated previously. Only lie to be treated cordially by a “prominent” man’s wife.

“Feel” means “respond emotionally,” a safe, secure situation for responding to narcissism.

### The Complex

that her husband had given a good account of you to her.

She explained apologetically

that her husband had been called away

for a few moments

but that he would return shortly,  
and had asked that you  
be made comfortable

in the library.

You  
accompanied her to this room  
where

she

introduced you to a charming girl  
who was obviously rather shy and reserved

### Explanatory Remarks

Also, the word is a direct call for narcissistic response. At the same time there is given the simple direct hypnotic command of "you feel."

Full opportunity offered for unrestricted narcissism in a safe, secure fashion. All that has been told now rests upon secure foundation of narcissistic satisfactions. He needs this story.

An indirect attack upon his narcissism—is this gracious woman who flattered him now becoming apologetic? That must not be so because whatever that cordial woman does must be right, and he will make it so. Apologies and praise in that combination are not good.

A faint, remote realization that he was alone with a woman who was a wife and hence a recognized sexual object.

A limitation of the danger, and hence he is safe, although alone with a woman.

"Shortly" is so specifically vague and reassuring.

"You," the person, introduced again.

Gracious man, gracious woman, narcissistic satisfactions reinforced.

A distraction phrase. Yet, to be made comfortable by a lone woman in the safe confines of a library is like inviting a girl to meet you in the sitting room of your hotel suite—a faint suggestive implication.

Second-person active.

Reduction of possible fear by specificity in mentioning only this room—but what is to happen?

A woman active in his company she—something will happen!

For him there can be no greater threat in all the world than a charming girl. A terrifying, threatening situation, loaded with tension firmly established by his past.

The threat castrated, and he was master. Thus, his fears were aroused and immediately lessened.

### The Complex

and who, she explained,

was their only daughter.

The mother

then requested your permission

to go about her work,

explaining

that the daughter

would be very happy to entertain  
you

while you waited.

You assured

the mother

### Explanatory Remarks

First she explained apologetically and unacceptably, now she explains in relation to a threat will these displeasing explanations never end? A direct opportunity for relief of tension, directed against unnecessary social amenities conducted in such a terrifying situation, but serving to introduce another antagonism.

A very special kind of daughter, all the more threatening despite the castration. Thus, a useless, only temporary castration was performed, and while it did relieve his tension briefly, that tension has been revived and intensified.

An immediate shift from the threatening daughter to the displeasing mother, permitting his tension to increase.

This cordial, gracious, apologetic woman led him into a trap; she was nice, and certainly he would do anything for her, especially since it would change the total situation by letting him deal with the mother and not the daughter.

Work is a far cry from social pleasures, remote and distant, and thus she was removing herself far from him, leaving him alone with danger.

That unpleasant word again, first used to rob him of narcissistic pleasure, then to lead him into a danger situation. What now?

Special, precious, only daughter—charming girl. A peculiar threat, challenge, and danger all combined.

To be entertained by a charming girl with the mother's connivance!

“Waited” for what? “Waited,” a threatening word, expressive of his passive helplessness. He could only wait, and in the past he had so often “waited” in the company of a charming girl.

“Assured” carries connotations about risks and dangers.

Who led you into a trap, a danger situation—opportunity for intense resentment and tension

### The Complex

that you would be very comfortable  
and even now  
you can recall  
the glow of pleasure you  
experienced  
  
at the thought of having the  
daughter  
as a hostess  
  
as the mother left the room  
  
you set about conversing  
  
with the girl  
  
and despite her shyness and  
bashfulness,  
  
you soon found  
that she was  
  
as attractive conversationally as she  
was pleasing to the eye.

### Explanatory Remarks

relief.  
“Comfortable” with a girl? Past history proves the mockery of that.  
Harking back to the first “now” and reutilizing its “present” values.  
Harking back to the first use of “recall” and thus tying everything tightly together.  
Harking back to “re-experience the various conflicting emotions.” If there were conflicting emotions, some were glows of pleasure, and now his situation is one of a conflict, of attractive and shy, of charming and only daughter, of mother coming and not staying and praising and apologizing, pleasure and unpleasure.  
“Having the daughter,” possessing the charming girl-synonymous phrases.  
Dance-hall hostess? He had had hostesses before, and now there is given the suggestion that he have the “daughter as a hostess.”  
A distraction by shifting attention away from the immediate threat of the girl, and hence readily accepted even though it leaves him alone with his danger.  
  
Second person introduced. “Set about” implies action, doing something. “Conversing” is a safe activity, but it is a euphemism, and what thinking one can do as he converses!  
Alone with a dangerous girl brought to full realization.  
Despite those qualities, what else? What danger threatens?  
  
Continuation of the threat.  
What was she? An only daughter, a charming girl, a daughter as a hostess?  
Safe, yet unsafe, physically pleasing, capable of conversation, capable as a hostess.

### The Complex

You  
soon learned  
  
that she was much interested  
  
in painting  
  
had attended art school, and was  
really profoundly interested in art  
  
  
she  
timidly  
  
showed you  
some vases she had painted.  
  
  
Finally  
  
  
she showed  
  
you a delicate little glass dish  
  
which she had painted  
in a very artistic manner  
  
explaining  
  
that she had decorated it as an  
ashtray for her father,  
to be used

### Explanatory Remarks

Second person again.  
He had learned much about her, too much, and  
now what more was to be learned about this  
charming girl so pleasing to the eye?  
Repetition of the word “interested.” In what  
could she, in this danger situation, be interested?  
“Painting”? Painting the town red? A  
euphemism?  
He had done commercial art to pay his way  
through college, so there was something in  
common, a common interest-to be profoundly  
interested in art would mean that she was  
interested in his art, and his art was part of him.  
A part of him?  
A shift from him to her.  
A dangerous girl being timid? Girl-boy behavior,  
coy, luring behavior?  
Presented to you.  
A symbol innocuously introduced, and with the  
word “painted” establishing their common  
interest in doing something.  
This is a threatening word. It establishes a  
moment surcharged with finality—a grand finale  
is about to be!  
Previously, she timidly “showed,” but now where  
is that timidity? The situation has changed!  
Fragile, precious thing, easily shattered by  
masculine strength, so like the girl.  
Something on which she had lavished attention.  
Lavished care in a special sort of way that he and  
she together could both appreciate.  
That word of previously unsatisfactory  
connotations.  
Charming girl, precious possession, father’s  
owner-ship and priority.  
There is something in this danger situation to be  
used!

### The Complex

more as an ornament  
than as an actual ashtray.

You admired it  
very greatly.

This mention  
of using the dish as an ashtray  
  
made you desirous  
of smoking.

Because of her youth  
  
you hesitated  
  
to give her a cigarette.

### Explanatory Remarks

An ornament can decorate a pleasing body.  
It's not an ashtray! It's something different.  
Thus, the symbolic value is clearly established. It  
is just called an ashtray, but it is an ornament  
belonging to her and over which the father  
exercises some undetermined undefined  
authority.

"It" was what she had; she was attractive,  
pleasing to the eye.

Redundant superlative! In other words a special  
significance is to be attached to this symbol,  
significance in relation to admiration in the  
presence of a physically attractive girl.

Some things are just "mentioned," hinted at, not  
said in a forthright manner.

But it is not a "dish," it is not a vase, it is not  
even an ashtray-it is just an ornament that  
belongs to her and to her father in a peculiar sort  
of way.

One wishes to smoke but becomes "desirous" in  
the presence of a pretty girl.

A euphemism, a safe, conventional way of giving  
expression to the feeling of being "desirous,"  
actually a pattern of behavior taken out of his  
past, since smoking was used by him in his  
problem situation as a distraction.

Not "youth" really, though she was fresh and  
pretty and youthful, but something that "youth"  
connote, something not to be expressed.

One may eye an attractive girl and be "desirous"  
and "hesitate." Thus, a sexual motif becomes  
more evident. Besides, one does not hesitate to  
smoke in the presence of youth.

A symbolic ashtray, an ornament belonging to  
her in which both she and he were "interested" in  
a special way, with a father lurking in the  
background. The words "desirous," "smoking,"  
"youth," "hesitate" all constitute a background  
for a symbolic cigarette that fits a symbolic  
ashtray.

### The Complex

Also,

you did not know how her father  
might feel about such things

and yet you wanted  
to observe the courtesies of  
smoking

As you debated

this problem

you became increasingly impatient.

The girl

did not offer you a cigarette and  
thus solve your problem

and you kept wishing

that you might  
offer her a cigarette.

Finally

in desperation

### Explanatory Remarks

There is something else left unsaid as yet, an implication repeatedly established by transitional words.

Father lurking in the background reinforced.

What are “such things” in the presence of a youthful girl that might arouse a father’s ire?

A long history of “wanting,” “wanting” in the presence of every pretty girl

A euphemism, since what else can be said?

One does not debate about smoking, one debates for deep reasons, one strives against and tries to controvert the forces against him in a debate.

He had a “problem,” a most troublesome problem in relation to girls, and he is “debating” a “problem” in a girl’s presence.

Not over smoking does one become “increasingly impatient,” but only over vital problems.

“The girl” follows “increasingly impatient,” and by that juxtaposition a relationship is established between “the girl” and the feelings described.

She failed him like all other girls he had known, equating her with those other girls who did not solve his “problem.”

“Wishing” just “wishing” in direct connection with a girl who had failed to solve his “problem,” an old, old story for him.

If only he “might,” really “could” do something.

“They satisfy,” was one of his clichés, and he did want satisfaction. The conventional and the sexual motifs intermingled—satisfaction in relation to a girl, a symbolic ashtray, being “desirous” and his “problem.”

Another final moment, with implications of other things.

Strong, bitter, frustrated emotions constitute desperation, and it does not derive from being deprived of a cigarette.

### The Complex

you asked her permission  
to smoke,  
which she granted very readily,  
and you took a cigarette  
but did not offer her one.

As you smoked

you looked about for an ashtray and  
the girl, noticing your glance,

urged

you to use the ashtray she had  
designed  
for her father.

Hesitantly

you did so  
and began talking on various topics.

As you talked you became aware of  
a rapidly mounting impatience

for her father's return.

### Explanatory Remarks

The role of being miserable, a suppliant,  
incapable of self-determined action.

A long history of smoking in his “problem”  
situation to cover up and conceal his disability.

A permissive, willing girl, readily granting  
favors—another item taken out of his past  
history.

That was all he could do, and which he had so  
often done in the past.

She bad no pleasure, she was unsatisfied. Past  
history still being utilized.

He couldn't do anything else, as be bad proved  
many times.

Did she notice? Did all those girls of the past  
notice your glance, your look? “For an ashtray  
and the girl,” making them in this juxtaposition a  
single object to be looked for. Also, another  
cliché was “ashes hauled.”

Not only permissive, but urgent, active,  
aggressive.

An “ashtray she bad designed” for what? She  
bad only decorated it for father.

Father’s special thing, unused by him and not,  
intended for his use, but only an ornament over  
which be exercises an undefined authority.

Again he “hesitates,” but more than that, the  
word “hesitantly” implies insecurity, uncertainty,  
even fears.

“Hesitantly, you did so—in other words,  
disposed of “ashes” in a forbidden object.

A technique of self-distraction and of distraction  
for the girl often employed in the past.

“Mounting” is a word he often used with special  
significance. He was always “impatient to  
mount” before “something happened” that meant  
the end of the attempt to succeed. Incongruous  
words!

“What choice is there between “father

### The Complex

Shortly you became so impatient

that you could not enjoy smoking  
any longer,  
and so great was your impatience  
and distress

that instead of carefully putting out  
your cigarette and then dropping it  
in the ashtray, you simply dropped  
the lighted cigarette

into the ashtray and continued to  
converse with the girl.

The girl apparently  
took no notice of the act

but after a few minutes you  
suddenly heard a loud crack,

and you immediately realized that  
the cigarette you had dropped into  
the ashtray had continued burning  
and had heated the glass unevenly,  
with the result that it had cracked in  
pieces.

You felt very badly  
about this, but the girl  
very kindly and generously  
insisted that it  
was a matter of small moment

that she had not yet given the

### Explanatory Remarks

This is only another “impatient” situation, thereby it is equated with other “impatient” situations.

Past history repeated. Was that why the slogan “they satisfy” was his cliché?

“Those words can describe only something more vital than smoking. They are pertinent to past experiences.

“The whole performance was of no value—it was futile, useless, hopeless, fraught with distressing emotion. “lighted cigarette” and ashes just dropped futilely.

Past history, in that he could only conclude by conversing with the girl.

“Apparently” carries a weight of hope.

There are acts, and then there is “the act,” and this was an act that preceded his despairing resignation to mere conversation with a girl, a girl who “took no notice,” a parallel of many previous instances.

“The crack that never heals” was a paraphrase from a song often employed by him to vent sadistic reactions.

He had often bitterly described his repeated efforts and failures on a single occasion as an attempt “to take a crack in pieces.”

Redundancy, strained superlative to carry extreme emotional weight.

“This” is one thing, “the girl” is another—juxtaposition of two items that are to be equated.

Permissive, granting, urgent, now maternally kind and forgiving—copies from past experience.

An unnamed “it.”

Past history again, carrying the same load of bitter ironic significance. What he did was of “small moment.”

Further ironic truth.

### The Complex

ashtray  
to her father  
  
that he would not know anything  
about it  
and that he would not be  
disappointed.  
  
Nevertheless,  
  
you felt exceedingly guilty  
about your carelessness in breaking  
the ashtray.  
and you wondered  
  
about how her father  
would feel about it  
  
if he ever learned of it.  
Your concern was plainly evident,  
  
and when the mother  
came into the room you tried  
to explain, but she graciously  
reassured you and told you that it  
really did not matter.  
However, you felt most  
uncomfortable about it,  
and it seemed to you that the girl  
felt badly too.

### Explanatory Remarks

First maternal, now the girl speaks for her father, thus combining maternal and paternal attitudes in her forbearance.  
“Not anything,” a secret was to be kept, a guilty secret.  
Still an unnamed “it.”  
A seriously tense situation does not warrant such a mild word as “disappointed.” “Disappointed” is a euphemism and at the same time signifies that the situation warrants the mockery implied by “small moment.”  
“Nevertheless” implies the existence of certain other facts.  
Fitting words, but not for the superficial content.  
A euphemism, since exceeding guilt does not attach to an ashtray.  
How many times had he “wondered” in similarly emotionally charged situations?  
Man of power, authority, prior rights.  
Not think about “fee,” since this was a matter for profound emotion.  
“Ever learned”—a continuing threat implied.  
How many times in the past had his concern been evident?  
Maternal retribution, forgiveness, or what?  
You really did try, you’ve always tried, but it always ends the same old way.  
Forgiveness, not retribution, always forgiveness as in the past.  
“Small moment” ironically brought home by the one who should be most bitter.  
A conventional way of saying something too vital to be put into words.  
Like other unsatisfied girls who masked their disappointment by maternal behavior, who did not reveal that they had been “badly” used.

### The Complex

Shortly after this a telephone call was received from the father stating that he was called away for the rest of the day

and asking your permission to see you on a later day.

You left the house very gladly, feeling most wretched about the whole situation

and realizing at the time that there was nothing you could really do about it.

Now after you are awakened,

this whole situation

will be on your mind. You will not consciously know what it is but nevertheless, it will be on your mind, it will worry you and govern your actions and your speech although you will not be aware that it is doing so.

I have just told you of a recent experience of yours, and as I recounted it to you, you recalled it in detail, realizing the whole time that I gave you a fairly accurate account of the situation, that I gave the essential story.

After you awaken, the whole situation will be on your mind, but you will not be conscious of what it

### Explanatory Remarks

A reprieve, a postponement.

“Your permission,” when he has been wronged and violated in relation to his only daughter. The whole situation now radiates beyond the room, reaches out into the fabric of the social situation, the educational situation, infringes upon and enters into everything, and continues to a “later day.” Hence, it is not ended yet, but reaches indefinitely into the future.

That was all it was, a “whole situation.” A pun upon another cliché he employed when distressed about his disability.

A final, despairing repetition of the teachings of the past.

The original “now” situation continuing into the immediate future with the repetition of the word “now” reestablishing the original receptive attitude.

Pun repeated in relation to the immediate future.

Hypnotic suggestion, with careful emphasis upon the second-person pronoun.

A brief summary of first- and second-person activities with allocation of responsibilities and definition of roles reiterated.

A final shifting of all action upon the second person and repetition of hypnotic suggestions.

### The Complex

is, you will not even be aware of what it might be, but it will worry you and it will govern your speech and your actions.

Do you understand?

### Explanatory Remarks

A final command, request, and plea that in itself signifies that there is much to be understood.

## CONCLUDING DISCUSSION

That all of this labor was warranted in devising a complex is, at first thought, questionable. Previous experience (Huston et al, 1934) had disclosed that complexes could be devised easily which would exert significant influences upon the behavior of hypnotic subjects. However, such influences were found to be uncertain, unreliable, and unpredictable. Additionally, that same investigation, as well as other experimental work had shown that hypnotic subjects could reject complexes for even minor reasons or mere whims.

In this particular experiment, however, the total situation made heavy demands. Not only was the subject to accept the complex and to have his behavior influenced by it, but he was also to be induced to develop an artificial neurosis which would in some way parallel his actual neurosis. Thus, the experimental situation required of the subject a highly specific type of behavioral reactions, determinable only by the personality structure of the patient, and which would be expressive of responses at a symbolic level to the implications rather than to the actual content of the story.

Just what forms such responsive symbolic behavior would take was entirely a matter of speculation. For example, phobic reactions about smoking were anticipated, but it was not realized these phobic reactions would lead to a ready acceptance of a cigarette for smoking and then result in a fearful dusting of the ashes into his trousers' cuff, with a subsequent spontaneous equating of this specific behavior with the consequences of a premature ejaculation. Such symbolic equating of two different types of behavior in relation to his trousers can be explained only in terms of the intended special meanings of the complex story, and hence, the results suggest that, at least in this type of interpersonal communication, the method by which a story is told may be even more important than its content.

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# **Applications of Hypnosis to Psychiatry**

Milton H. Erickson

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## **GENERAL INTRODUCTION**

For nearly 200 years there has been a slowly growing scientific interest in hypnotism. Along with this interest there has also existed much antagonism, misunderstanding and actual fear of the phenomenon because of the difficulties involved in reaching any clear understanding of it. However, the developments in psychology, psychiatry, and psychoanalysis within the last 50 years are now serving both directly and indirectly through the elaboration of new and useful concepts to place hypnotism on a secure scientific basis free from the hampering, superstitious misconceptions that have characterized so long the general attitude toward this definite psychological phenomenon.

At the present time many of the leading psychological laboratories are subjecting hypnosis to controlled scientific study. In the last 20 years slightly more than 400 articles have been written on the subject in French, English, and German. About one-third of these articles were written in the first half of the last 20 years, and they dealt either with vague generalities or limited aspects of the subject. The articles for the last 10 years amounting to two-thirds of the total, show a markedly different approach to the subject. Not only has the volume of the work doubled, but the approach to the problems of hypnotism has been placed more and more on the scientific basis of controlled laboratory analysis and experimentation in an effort to identify the essential nature of hypnotic manifestations. The immediate outcome of this type of scientific study has been the realization of the investigative and explorative values of hypnosis as an instrument applicable to the laboratory study and analysis of the psychological aspects of human behavior, neurophysiology, and mental disease.

## **HISTORICAL PERSPECTIVE**

Before discussing these aspects of the subject, hypnotism may be considered first in a brief historical review. Although actually known for centuries, even by primitive savages, hypnotism made its semiscientific debut about 1775 in a study by Mesmer, after whom it was originally termed "mesmerism." Mesmer had no realization of its psychological nature but regarded it as a force of a cosmic type possessed of decided value in the medical treatment of certain types of patients. Mesmer's misunderstanding of his discovery, together with the general antagonism of the public to any new and incomprehensible phenomenon, led to the development of many superstitions and fearful beliefs, some of which are excellently portrayed in the story of "Trilby," especially in the

characterization of Svengali. These fears and superstitions are now beginning to die, although they are frequently given new life in the cinema, the tabloid newspaper, and the comic strip.

Following Mesmer were three outstanding English physicians: Elliotson, who began his work in 1817 by employing mesmerism as a definite therapeutic aid in hospital and private practice; Esdaile, who, stimulated by Elliotson's success and writings, began to employ it medically in India in a government hospital chiefly as an anesthetic agent in surgery; and finally, James Braid, who in 1841 recognized its psychological nature and first placed mesmerism, which he renamed "hypnotism," on a scientific basis.

Since Braid, many outstanding clinicians have been interested in the subject, the foremost of whom was Charcot. Much of Charcot's work, however, served only to retard the development of definitive knowledge in this field. His misidentification of hypnosis with hysteria has led to many serious misconceptions of hypnosis, and even today the false belief is held that hypnosis and hysteria are the same. Fortunately, however, the increasing clinical literature is correcting this mistaken idea.

Perhaps the next significant, though passing, figure in the development of the clinical applications of hypnosis was Freud, who with Breuer initiated its employment as an investigative psychological instrument in the treatment of mental patients. However, he soon discarded it as a method because of certain limitations which he encountered through his use of it as a direct and immediately corrective and therapeutic agent instead of as an indirectly educative measure in therapeusis—developing, instead, certain of the discoveries he had made through his use of hypnosis.

Since this first application of hypnosis as a clinical instrument for the study of mental disorders, the development of psychology as a science has served greatly in providing concepts and methods of study and analysis permitting a more comprehensive application of hypnosis as a clinical instrument for both normal and abnormal forms of behavior. Accordingly, the problem of the study of hypnotism and its applications was taken over by both abnormal and clinical psychologists and psychiatrists.

With this recognition of hypnotism as constituting a definite problem for investigation by the relatively young sciences of psychology and psychiatry, there has come to be an increasing appreciation of the possibilities it offers in both fields, first as a laboratory instrument in the study of the nature of human behavior, and second as an explorative and perhaps therapeutic agent in dealing with mental disorders.

Naturally, the greater contribution to date has been in the field of the clinical psychologist, who has taken hypnosis out of the province of abnormal psychology and has employed it to reopen certain questions in psychology formerly considered fairly well outlined. This hypnotic experimentation by the clinical psychologist has served greatly, both directly and indirectly, to contribute new significance to such concepts as learning and forgetting, reasoning, sensation, attention, feeling and emotion, association, conditioning, and personality development, to develop new approaches to old questions,

and to permit the repetition of established work under varied psychological conditions, thereby serving to make it more informative.

In consequence of the general development of clinical psychology, psychiatry has profited extensively. As pointed out by Whitehorn and Zilboorg (1933), in the ten years from 1921 to 1930, there has been a complete change in the character of psychiatric literature, with a decrease of clinical descriptive articles and a more than doubling of the psychological studies. With this influx of psychological trends, psychiatry has come to look upon hypnosis not only as a limited therapeutic approach but rather as a useful instrument for the study of mental disorders and as an actual means of approaching an understanding of causal factors in the laboratory analysis of its problems.

## **GENERAL CONSIDERATIONS AND TECHNIQUE**

However, before taking up the question of the laboratory use of hypnosis, it may be best to mention briefly certain general considerations and then to proceed to the problem of the technique of hypnosis. First of all are those considerations included in certain general questions always asked, foremost among which is the question of who may be hypnotized. The reply to this is that any really *cooperative* subject may be, regardless of whether he is a normal person, a hysterical neurotic, or a psychotic schizophrenic patient. Next, it has no harmful effects nor does it lend itself, as the cinema and the tabloid newspapers would have one believe, to the promotion of criminal activities (Erickson, 1932, 1934). Thirdly, despite its outward appearance, it has no actual relation to physiological sleep but is simply a psychological phenomenon (Bass, 1931). Finally, it is not supernatural but a normal though little understood psychological manifestation, readily and easily controlled by the experienced worker.

Concerning the technique of trance induction little information is available in the literature, and hence each hypnotist necessarily develops his own. The actual accounts of hypnotic procedure given in the literature are inadequate and misleading. Because of this lack of information regarding the essential refinements of technique, much of the early hypnotic work attempted by investigators leads to poor or unsatisfactory results, and this in turn accounts for much of the discredit accorded to hypnotic work.

Usually the understanding is that hypnosis may be induced by repeated suggestions of fatigue, drowsiness, and sound sleep, and that when the subjects give evidence of being asleep, they are ready for hypnotic procedure. Actually, these subjects may be in a trance, giving every evidence of this fact, but in reality it is too often a type of trance permitting only limited use of hypnotic suggestion. The employment of hypnosis as a therapeutic agent or as a laboratory method of experimentation requires, for valid results, a training process extending over several hours. In this training procedure subjects may be hypnotized, awakened, rehypnotized, and reawakened repeatedly, with each of the trance and waking states employed to teach them by slow degrees a facility of control over mental faculties and an organization of responses that increases the degree of dissociation between consciousness and subconsciousness, thus establishing in effect but not in actuality a dissociated hypnotic personality. Only by building up in each subject a

capacity to function in an organized, integrated fashion while in the trance state can extensive complicated therapeutic or experimental work be done.

Because of the difficulties and labor involved in integrating various forms of hypnotic behavior, the variations in time and effort required in training individual subjects and hence the impossibility of establishing any standard of routine, and the general failure to realize the need for an integration of hypnotic responses, there are inadequate, ineffective, and often misleading results from hypnotic work.

Since the scope of this paper does not permit a detailed account of the refinements of technique, it may be best to summarize with the statement that an effective technique is one based upon repeated, long-continued hypnotic trances in which the subject reaches a stuporous state. In this trance stupor the subject is taught, by slow degrees, to obey suggestions and to react to situations in an integrated fashion. Only in this way can there be secured an extensive dissociation of the conscious from the subconscious elements of the personality which will permit a satisfactory manipulation of those parts of the personality under study.

### **UTILIZATION OF HYPNOTIC PHENOMENA**

To proceed now to a consideration of the utilization of the various phenomena of the hypnotic state, it may be best to select those having a significant bearing upon psychiatric problems and to indicate their various investigative possibilities.

One of the important trance manifestations occurring in nearly every well-hypnotized subject is catalepsy. In the stuporous trance this catalepsy may not be distinguishable from the cerea flexibilitas of the stuporous catatonic patient. Numerous attempts have been made to understand the physiology and psychology of the waxy flexibility of the schizophrenic patient, and many studies with drugs, especially bulbo-capnane on animals, have been made without clarifying the problem. The apparent identity of hypnotic catalepsy with the catalepsy occurring in mental disease suggests the advisability of approaching the neuropsychiatric problem contained in this familiar sign of mental disease by exhaustive studies of its hypnotic parallel, since the hypnotic catalepsy can be induced, directed, and controlled, and thus subjected to thorough physiological and psychological study as a phenomenon complete in itself and not as a minor part of a major constellation where many other factors may be present. Perhaps it is too optimistic to consider hypnotic catalepsy as identical with the catalepsy of mental disease, but it nevertheless offers an opportunity for a complete study of a closely parallel phenomenon that can be studied thoroughly at the convenience of the investigator. Approaches to this problem have been made at Yale (Williams, 1930) and various other universities, but further and more clinically oriented work is needed. Aside from the psychiatric aspects, the investigation of this problem should contribute much to a knowledge of muscle tonus and neurophysiology. It is conceivable that an understanding of hypnotic catalepsy would contribute materially to a better knowledge of certain of the phenomena of catatonia.

Another hypnotic phenomenon which has a direct bearing upon psychiatric problems is the amnesia which develops for all trance events following profound hypnosis. Thus, subjects in deep trance may perform any number of complicated actions and yet have no knowledge of their actions upon awakening from the trance (Erickson, 1934), and indeed, they may even be unaware of the fact that they have been in a trance.

That the whole problem of amnesia in itself constitutes a nuclear part of many psychiatric questions, particularly in considering the domination of the personality by long past and forgotten experiences, is readily realized. The same sort of amnesic phenomena found in the psychiatric patient is to be found in hypnotic amnesia, with the exception that the hypnotic amnesia can be controlled, manipulated, directed, removed, and even reestablished at the desire of the investigator. Thus, there is an opportunity to synthesize or to manufacture amnesic states, and then to analyze their effects upon the personality; then to restore the memories, studying the processes by which associations can be built up and forgotten experiences reintegrated into the conscious life of the personality. In brief, one can, by hypnosis, manufacture a state of amnesia, making it all-inclusive or limiting it to certain considerations, studying and analyzing that amnesia fully, with the entire possibility at any time of removing it in part or in full, making differential analyses at each step of the procedure.

In addition to this laboratory approach to the dynamics of amnesia, there is also a clinical application of hypnosis to the problem of amnesia as encountered in psychiatric practice. Recent literature contains a number of accounts of patients who have forgotten their identity or who have forgotten some experience of vital importance to them. In ordinary psychiatric practice the meeting of such a problem is almost entirely one of painstaking but often futile trial-and-error procedure. By means of hypnosis, as has been demonstrated particularly by Beck (1936) and by Erickson (1933, 1937; Erickson & Kubie, 1939), psychological situations can be created in the trance state, dormant associations awakened by hypnotic suggestion, and the amnesic material reconstructed. An example of the varying techniques which may be employed may be found in Erickson's *The Investigation of a Specific Amnesia* (1933), concerning a young woman who had forgotten the identity of a Christmas gift. By means of the employment of automatic writing, crystal-gazing, and dream suggestion the amnesic data was obtained. All of these are techniques which cannot be used in the waking state, but in the peculiar psychic state of hypnotic sleep they can be most effectual. The development of clinical techniques in the hypnotic exploration of amnesias should serve materially to advance knowledge concerning the development of amnesias, the repressive forces at work, and the mental mechanisms involved in their development and in their removal.

Another type of experimental hypnotic work employing certain characteristic phenomena of the trance state has been the utilization of hypnotic suggestibility as a means of testing in a laboratory the postulated fundamental causes of mental disease. Luria in his book *The Nature of Human Conflict* (1932), Huston, et al. (1934), Erickson (1935) in various studies of hypnotically induced complexes, and Brickner and Kubie in their study, *A Miniature Psychotic Storm* (1936), have all shown the significant value of hypnosis as a means of paralleling or duplicating on a miniature scale the major phenomena of mental

disorders. All of these workers were concerned with the production of psychoneurotic and emotional disturbances in normal subjects similar to the complex manifestations of actual mental disorder as a means of reaching an understanding of the processes involved.

Utilizing the marked suggestibility found in hypnotic states, Luria (1932) and Huston and his coworkers (1934) suggested disagreeable experiences, which, upon acceptance, would give rise to significant internal conflicts from which could derive severe neurotic and emotional symptoms. This procedure was followed by the administration of a word-association test accompanied by voluntary and involuntary motor responses to determine the presence in both hypnotic and waking states of evidences of internal conflict.

Subsequently, hypnotic psychotherapy was employed to remove these internal conflicts, and re-administration of the word-association test and its accompaniments disclosed the disappearance of the previous evidence of internal psychic distress. Briefly, these workers demonstrated the possibility of producing in normal subjects miniature artificial psychoses which would serve to govern their personality reactions, which could be removed at the will of the investigator, and which presumably might parallel in their structure actual mental disorders. Erickson's study (1935) demonstrated the possibility of developing in a subject an artificial neurosis characterized by compulsions, phobias, and obsessions, in such a fashion that an actual neurosis already present in the subject became a part of this induced neurosis, with psychotherapy of the artificial neurosis serving to remove the original difficulty.

Brickner and Kubie (1936), interested in the dynamics of compulsive behavior, undertook a study in which a hypnotic subject was given posthypnotic suggestions leading to compulsive and obsessive behavior. By this means they were able to observe the slow genesis and final working out of an abnormal type of behavior, identifying each element of the reaction pattern as it appeared and relating it to accepted theoretical concepts. Such studies as these reveal the possibilities for subjecting various types of human behavior to a complete study in a state of isolation. Before Luria's work (1932) the whole psychological and psychiatric concept of a complex was a clinical assumption, but as a result of the experimental work mentioned above, laboratory proof and methods for such proof are now available to show that a complex is an experimentally demonstrable concept signifying certain psychic phenomena and furthermore, that a complex can be induced in a subject, its effects upon the personality postulated and then corrected by direct observation, and that it can then be removed by psychotherapy and its effects upon personality reactions abolished (Huston et al., 1934). Like-wise, my own study (1935) and that of Brickner and Kubie (1936) have shown some of the fundamental processes entering into the development of compulsive, obsessive, and phobic behavior, demonstrating clearly the cause-effect relationships of definite experiences and their direct manifestations in behavior patterns.

Still another type of hypnotic work which gives great promise psychiatrically lies in the neurophysiological changes which may be induced in the profoundly hypnotized subject. Sears (1932) has reported some extensive studies on hypnotic anesthesia wherein the subject has had localized anesthesias induced comparable to the anesthesias that develop particularly in such psychoneuroses as hysteria and various conversion syndromes. This

work is highly suggestive of the possibilities of reducing many of the conversion symptoms found in mental disorders to laboratory problems accessible to investigation in a controlled fashion.

An even farther-reaching aspect of this possibility may be found in the work reported to the American Psychiatric Association in May, 1936 (Erickson, 1938), which gave an account of the production by means of hypnotic suggestion of a state of deafness which gave every evidence of being a neurological deafness and yet which could be removed and reestablished readily and easily by appropriate suggestion. Similar in character are two other investigations concerning the effect of hypnosis upon psychophysiological and neurophysiological functioning in the sensory fields as shown by the hypnotic induction of color blindness (Erickson, 1939), and the hypnotic induction of hallucinatory color vision accompanied by pseudonegative afterimages (Erickson & Erickson, 1938). That deafness and color blindness comparable in degree and character to that found in organic conditions can be induced by hypnotic techniques suggests strongly the value of hypnotic techniques for psychophysiological and neurophysiological research.

However, one of the greatest advantages of hypnosis as applied to psychiatry seems to me to be the possibilities it affords in the development of significant psychological situations permitting definite control and study of personality reactions. Thus, by hypnotic suggestion one can create definite psychological environments permitting an adequate study of personality reactions within those situations and free from other and disturbing elements. For example, should it be desired to make a study of the effects of a state of affective depression upon behavior in general, hypnotic subjects can be placed in a state of profound depression which will serve to govern their conduct in any number of ways. At the same time this depression can be removed and direct contrasts made between depressed behavior and normal behavior. An account of such experimental work can be found in the investigations mentioned earlier (Huston et al., 1934; Luria, 1932).

Just as situations can be created permitting a study of the genetic development of behavior patterns, so can hypnosis be applied to the calling forth of even long-forgotten patterns of response. To make this clear, let us consider the psychiatric concept of regression, which may be defined as a reversion to simpler and earlier forms of behavior—a thing that we see daily in the “second childhood” of senile patients and in the “regression” of schizophrenic patients. Platonow (1933) approached this problem, and his work has been repeated (Erickson, 1939), by suggesting to profoundly hypnotized adult subjects that they were children and had not yet reached the years of adult life. To those subjects, in that suggested state of childhood, intelligence tests were administered, and it was found that there had occurred an actual evocation of the simpler and earlier forms of response, both intellectual and muscular, with an amnesia for things learned subsequent to the suggested age level.

Control studies with normal subjects in the waking state asked to respond as children disclosed the impossibility of normal adults responding genuinely at a childhood level. Personal work on this problem has shown that normal adults may be “regressed” by hypnotic suggestion literally to a state of infancy, with this regression including not only

intellectual and emotional patterns of response but even muscular reflex responses. Just how significant this laboratory regression of normal subjects will prove is still a question warranting much more investigation; how much value it will be in reaching an understanding of the regression found in psychoses is still another question. But at least it does offer the best and most promising approach to date to one of the most significant and difficult of psychiatric problems.

Along this same line hypnotic regression can be employed profitably in the elucidation of another important psychiatric problem—namely, that of the abreaction or the reliving of past experiences. In this procedure subjects are reoriented or regressed to a previous period of their lives and allowed to relive as a current experience some long-past event. An example of such investigatory work is to be found in a report published in the *Archives of Neurology and Psychiatry* (Erickson, 1937). A patient who had been drugged and beaten to unconsciousness had recovered from his injuries but had developed an amnesia for the experience. Several years later, during hypnosis, he was reoriented to that period of his life and allowed to relive that experience as if it were actually happening at the time. By this procedure a complete account was obtained, together with a redevelopment of unconsciousness characterized by a loss of reflexes, and with a duplication of the original confused mental state. In brief, the patient was enabled to re-experience in the hypnotic state a profound traumatic experience which had long been forgotten. The application of this procedure in the securing of adequate psychiatric data on patients is at once apparent, and it is highly suggestive of the possibilities for reorienting patients to those periods of their lives wherein their original maladjustments and abnormalities first appeared. With such reorientation there is then the possibility of attacking directly the problems of psychotherapy involved.

Still another application of hypnosis to psychiatry lies in the development of an experimental approach to the study of psychic dynamisms. We all realize that personality reactions and emotional attitudes may manifest themselves directly or indirectly, consciously or at a level at which people are unaware of their conduct, or if they become aware of their conduct, may be unaware of their motivations. To date our knowledge of mental mechanisms has been based on the observance of their occurrence and the explanation of their appearance on a post hoc, propter hoc basis, relating the dynamism to those events which have preceded it, and then verifying the conclusions by noting whether or not the insight afforded by knowledge of the relationships serves to elucidate the nature of the response.

By the application of hypnosis the entire approach to the problem of psychic dynamisms can be changed. For example, the existence of unconscious mentation or subconscious thinking has long been accepted, but its proof has rested on observations made after its appearance. Recent experimental work (Erickson, 1938) shows that it is possible to create a psychological situation and to declare that a person subjected to such a situation would be forced to react in a certain way that would lead to a demonstration of unconscious mentation. In the experimental work mentioned a normal hypnotic subject was instructed to write a simple sentence, complete and meaningful in itself and which could be read by anyone else and found to have that meaning; and yet, in an unnoticeable way, it would

contain a significance apparent only to the subject's unconscious mind. The subject achieved this difficult task by writing her guess concerning the length of time required to perform a certain act. The subject as well as the entire group present read the writing as "30 seconds." Yet, upon indirect questioning and the employment of automatic writing, it was found that the writing actually read 38 seconds, written with some scrawling of the word thirty and the transformation of the letter y into the numeral 8. Thus, two trains of thought, simultaneously operative, were recorded by different types of symbolic thinking, one of which was kept from the awareness of the subject's conscious mind. In this same report, with another hypnotic subject, it was possible to carry on a written conversation having a conscious import but which was developed entirely in accord with an import known only to the unconscious mind of the subject and to the investigator without the subject becoming aware consciously of the actual nature of the conversation.

One other important consideration needs to be mentioned—namely, posthypnotic behavior, since this phenomenon enters so intensively into both experimental and therapeutic use of hypnosis. Briefly defined, posthypnotic behavior is that which occurs in response to hypnotic commands and subsequent to the trance state in which it is suggested. Through its utilization therapeutic efforts are made to direct, influence, and control behavior favorably and to enable patients to meet their various problems adequately. Similarly, it is used experimentally in the laboratory as a measure of manipulating a subject psychologically to permit a study of the dynamics of behavior, and its field of usefulness there is now being realized (Erickson & Erickson, 1941).

## **CONCLUSION**

Within the limits of this report it has been possible only to sketch briefly a few of the applications of hypnosis to psychiatry. Many important considerations have been omitted. It has been my purpose only to indicate certain possibilities for definitive research in psychiatry by the use of hypnosis. That the eventual results of such research will be good or bad cannot yet be stated, but at least it can be said that hypnotic techniques applied to psychiatric problems give every promise of leading to better understandings of troublesome questions. In addition to this is the fact that hypnosis itself constitutes a form of psychic behavior worthy of understanding. And it is only reasonable that a thorough understanding of one type of mental behavior should contribute materially to an understanding of many problems of mental disorder.

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# Hypnosis in Medicine

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Hypnosis or hypnotism is a psychological phenomenon of exceeding interest to both layman and scientist. Its history is as old as that of the human race, and it has been utilized by the most primitive of peoples, ancient and modern, in the practice of religious and medical rites to intensify belief in mysticism and magic. The striking character of this psychological manifestation, its inexplicable and bewildering phenomenology, and the seemingly miraculous results it produces—together with its long use for the bewilderment of the observer—have served to surround it with an aura of the supernatural and the unreal. As a consequence, the attitude of the general public toward this phenomenon, now scientifically established, has been, and too often still is, one of superstitious awe, misunderstanding, incredulity, antagonism, and actual hostility and fear. This attitude is perpetuated by the exploitation of hypnosis by the charlatan and the stage performer and the well-intentioned but mistaken and inadequate utilization by inexperienced experimenters and medical men.

The scientific history of hypnosis began about 1775 with Anton Mesmer, whose name is still attached to it, but unfortunately, even this scientific beginning was founded on a mystical belief that it was constituted of a peculiar cosmic fluid with healing properties.

Mesmer's use of hypnosis began with his discovery that suggestion in various forms could be used to induce a condition resembling sleep in certain types of patients, and that, in this state, therapeutic suggestions could be given them to alleviate and even remedy their complaints and symptoms. Unfortunately, Mesmer failed to recognize the purely psychological character of his discovery and attributed it to a cosmic force he termed "animal magnetism." Although Mesmer successfully treated large numbers of patients on whom orthodox medical procedures had failed, he fell into disrepute because of the mysticism with which he surrounded his therapy. Nevertheless, his discovery and utilization of it served to lay a foundation for the therapeutic use of hypnosis and for a recognition of the validity of psychotherapy as a medical procedure.

Since Mesmer's time there has been a succession of scientific men, chiefly medical, who have contributed greatly to its scientific growth. Elliotson, the first British physician to use a stethoscope, used hypnosis effectively about 1817 in his medical practice and published extensively on its suitability for certain types of patients. Esdaile, through Elliotson's writings, became so interested that he succeeded in having a government hospital built in India primarily for the use of hypnosis, where he extended its use to all types of patients, especially surgical.

In 1841 James Braid, an English physician who bitterly opposed "mesmerism," was induced to make a physical examination of a mesmerized subject. He recognized both the validity of the phenomenon and its psychological character, with the result that he coined the terms *hypnosis* and *hypnotism* and initiated the first scientific studies of hypnosis as a psychological condition of extensive medical and scientific significance.

Since then, clinicians first and psychologists later, among them many outstanding scientists, have contributed increasingly to a better understanding and utilization of hypnosis as a scientific tool and as a medical procedure of immense value for certain types of patients. Particularly has interest been developing rapidly during the last 25 years among psychiatrists and psychologists. During the last 15 years there has been an increasing wealth of publications dealing with the effective use of hypnosis in the fields of psychiatry and experimental psychology.

Regrettably, however, there is still a persistence of outmoded ideas and concepts of hypnosis which vitiate experimental studies and therapeutic efforts. For example, some psychologists are still publishing studies based upon techniques and psychological concepts belonging to the 19th century, and some medical men still employ it for direct symptom relief rather than as an educative procedure for the correction of personality disorders.

As yet the scientific study of hypnosis is still in its infancy despite the development of a healthy, intense interest in it as a scientific problem of merit. There is still lacking an adequate general appreciation of the need to integrate hypnotic studies with our present-day concepts and understandings of personality, of inter- and intrapersonal relationships, and psychosomatic interrelationships and interdependencies.

## **GENERAL QUESTIONS**

In any discussion of hypnosis certain general questions arise concerning who may be hypnotized, the possible detrimental effects of hypnosis, its possible antisocial use, the nature of the hypnotist-subject relationship, the controllability of the hypnotic state, the relationship between hypnotic sleep and physiological sleep, and the possibility that hypnosis may crystallize or precipitate abnormal or pathological conditions in subjects that otherwise might have remained indefinitely dormant.

Because of space limitations reply to these questions must necessarily be brief and dogmatic, and the reader is referred to the following references upon which reply is based: Brickner & Kubie, 1936; Bass, 1931; Beck, 1936; Erickson, 1933, 1935, 1937a, 1938a, 1938b, 1939a, 1939c, 1943b, 1943c; Erickson & Erickson, 1941; Erickson & Brickner, 1943; Erickson & Hill, 1944; Erickson & Kubie, 1939, 1941; Farber & Fisher, 1943; Fisher, 1943; Gill & Brenman, 1943; Harriman, 1941, 1942a, 1942b; Liebman, 1941; Raeder, 1933; Sears, 1932; Vogel, 1934; White, 1941.

Briefly, there are no *injurious* or *detrimental effects* upon the subject other than those that can develop in any other normal interpersonal relationship; hypnosis cannot be used for

antisocial or criminal purposes—most subjects can be induced to commit make-believe or pretended crimes, but pretenses should not be accepted as realities; the hypnotist-*subject relationship* is entirely one of voluntary cooperation, and no subject can be hypnotized against his will or without his cooperation; the hypnotist-subject relationship is analogous to that which exists between physician and patient, lawyer and client, minister and parishioner. Furthermore, a subject can be a hypnotist and a hypnotist can be a subject; they can work with each other in alternating roles, and often do in experimental work. Belief that hypnosis is a matter of a weak will dominated by a strong will is entirely a misconception. The best subjects are highly intelligent, normal people; the feeble-minded and the psychotic and many psychoneurotics are either difficult or impossible to hypnotize.

Since hypnosis depends primarily upon cooperation by the subject, the control of the trance state rests largely with the subject. No subjects can be kept in a trance for an unreasonable length of time without their full cooperation, and the removal of the hypnotist from the hypnotic situation by one means or another disrupts the interpersonal cooperation necessary for the continuance of the trance. Thus, no subject can be left accidentally or intentionally in a trance for an indefinite period.

The relationship between the hypnotic trance and *physiological sleep* is one of appearance only. Hypnosis is a psychological phenomenon with secondary physiological manifestations, and sleep is physiological with secondary psychological manifestations. Blood distribution, muscle tonus, motor behavior, and reflex behavior in the trance state are not the same as in physiological sleep, and the two phenomena primarily serve entirely different purposes. Physiologically, there is much more resemblance between the hypnotic and the waking states than with physiological sleep.

As for hypnosis *crystallizing or precipitating abnormal or psychopathological conditions*, this is a post hoc observation. The relationship is temporal and not causal, as in the case of mental illness first noticed following a routine appendectomy.

Finally, as for *detrimental effects* of hypnosis, none have been observed in personal experience with hundreds of subjects, some of whom have been hypnotized hundreds of times. Furthermore, as every experienced hypnotist knows, the great difficulties involved in producing changes in the personality of a desired therapeutic character make evident the illogic of assuming that the time- and situation-limited hypnotic trance can bring about significant harmful effects, when earnestly desired beneficial effects are so hard to achieve.

## **THE TECHNIQUES OF HYPNOTIZING**

The technique of inducing hypnosis, contrary to long-established and traditional superstitious ideas of eye fixation, crystal balls, and passes of the hand, is primarily a function of the interpersonal relationship existing between the subject and the hypnotist.

Hypnosis is not a mystical, magical thing that follows a definite rule-of-the-thumb or a special abracadabra. Practically all normal people can be hypnotized, though not necessarily by the same person, and practically all people can learn to be hypnotists. Hence any technique that permits the hypnotist to secure adequate and ready cooperation in this highly specialized interpersonal relationship of hypnosis constitutes a good technique. The able hypnotist is the one who is able to adapt technique to the personality needs of each subject. Thus, some subjects want to be dominated, others coaxed, still others to be persuaded. Some subjects want to dominate the situation and place the hypnotist in the role of an assistant who merely guides. Some prefer to be hypnotized by a wealth of repetitious suggestions, and there are those who like to resort to an introspective experiencing of the process of going into a trance. Sometimes the situation is one of authority-subservience, or it may be one of father-child, or again physician-patient, and often that merely of two equals intensely interested in an important problem.

Properly, hypnotists should have a good appreciation of their own personality and capabilities so that they may adapt themselves to the specific personality needs of each subject. In the majority of instances, especially in medical hypnosis, the physician-patient relationship is ideal and satisfies adequately the personality needs of the subject.

The actual procedure best employed when the problem is not controlled experimental work consists of giving the subjects a preliminary explanation of what they may expect, thereby correcting any misapprehensions they may have. At the same time this suggests indirectly to them their course of behavior and response. This is followed by a series of suggestions to the effect that they will get tired and sleepy, that they will wish to sleep, and will feel themselves going to sleep, that they will notice increasing lassitude of the body and an increasing feeling of comfort and satisfaction as they continue to sleep until they fall into a deep, sound, restful sleep. Every effort should be made to make the subjects feel comfortable, satisfied, and confident about their ability to go into a trance, and the hypnotist should maintain an attitude of unshaken and contagious confidence in the subject's ability. A simple, earnest, unpretentious, confident manner is of paramount importance, unless one wishes to be a vaudeville performer. Only then are histrionics warranted.

Once the hypnotic trance has been induced, there is need to keep a subject in the trance until the necessary work has been completed. This is best done by instructing the subjects to sleep continuously, to let nothing disturb them, to enjoy their trance state, and above all to enjoy their feeling of comfort, satisfaction, and full confidence in themselves, their situation, and their ability to meet adequately and well any problem or task that may be presented to them.

The awakening of the hypnotic subject is a simple procedure, even with those subjects who willfully insist upon remaining in the trance. Usually, simple instruction to awaken is sufficient. If the subject resists awakening, simple persuasive suggestions will suffice.

Of great importance in inducing trance states and trance behavior is the allotment of sufficient time for the subject to make those neuro- and psycho-physiological changes

necessary for certain types of behavior. To rush or force a subject often defeats the purpose.

## **HYPNOTIC PHENOMENA**

While certain phenomena are characteristic of the hypnotic trance, their manifestations vary with the individual subject and with the depth of the trance—that is, whether light or deep hypnosis. Even so, phenomena usually found in deep hypnosis may, in the individual subject, occur in light hypnosis and vice versa, depending upon the subject's personality and psychological needs at the time. There is no absolute rule—hence, efforts to describe accurately various levels of trance depth are chiefly of academic interest.

Most normal people develop light hypnosis easily, and at least 70 percent of all subjects, with adequate training—which is meant repeated hypnosis and thus continued practice in going into the hypnotic state—can develop deep trances.

For medical purposes either the light or the deep trance may be satisfactory, depending upon the nature and the character of the therapeutic goal to be achieved. Also, should the light trance be unsuitable, recourse may at once be had to the progressive induction of a more profound trance. Experience is the only able teacher of what type of trance is necessary, and failure to secure results in the light trance can always be corrected by resorting to the deep trance.

The phenomena of the trance of most interest to the medical man are several. Foremost of these is *rapport*, a condition in which the subject responds only to the hypnotist and is seemingly incapable of hearing, seeing, sensing or responding to anything else unless so instructed by the hypnotist. It is in effect a concentration of the subject's attention upon, and awareness only of, the hypnotist and those things the hypnotist wishes included in the trance situation, and it has the effect of dissociating the subject from all other things. The hypnotist may transfer this rapport by appropriate suggestions.

*Catalepsy* is a second phenomenon which illustrates clearly the tremendous psychosomatic significance of hypnosis. This is a peculiar state of muscle tonus which parallels *cerea flexibilitas* of the stuporous catatonic patient. The subject holds his arm up in the air, maintains any awkward position given him by the hypnotist, and shows a failure of normal fatigue reactions. Concomitant with it are a loss of the swallowing reflex, a dilatation of the pupils, a loss of facial mobility, and a definite slowing of all psychomotor activity. Yet, upon instructions by the hypnotist, the subject can perform adequately at a motor level equal to the waking capacity and often at a level that transcends it.

*Sensory* changes, or alterations in sensory behavior, of both a positive and a negative character are frequent and often undetected. Blindness and deafness to things not included in the hypnotic situation often develop to a degree that resists clinical tests. There also occur spontaneously anesthesia, analgesia, and other types of sensory disturbances. Additionally these sensory phenomena can be induced by appropriate

suggestion. A detailed account of these types of psychosomatic manifestations has been reported (Erickson, 1943). Their presence is often of great importance in therapy, since they serve so well to make subjects appreciate their trance depth and to direct the hypnotist's attention to unexpected psychosomatic implications that need to be considered in the hypnotic procedure.

*Amnesia and other memory alterations* constitute another type of hypnotic phenomena of extreme interest to the medical practitioner. Usually after a deep trance subjects have a more or less complete amnesia for all trance events. This amnesia can be controlled by the hypnotist through instruction to the subjects, or the subjects themselves can deliberately set about recovering the amnestic material. In either instance the forgotten memories may be recovered in full or in part according to the instructions given or in accordance with each subject's needs. This amnesia is of profound importance in psychotherapy since it permits the therapist to deal with painful memories without arousing the subject's waking resistance and defensive reactions.

In contradistinction to hypnotic amnesia is the capacity of the hypnotic subjects to develop *hypermnesia*—that is, increased memory ability—and to recover memories of past experiences long forgotten and actually inaccessible in the waking state. Traumatic, painful, forgotten experiences and memories that often constitute a point of origin in serious personality disturbances are frequently readily accessible under hypnosis, can be easily recalled by the patient, and a foundation laid in the trance state for their integration into the waking life of the patient. The importance of the recovery of lost memories in psychotherapy is fully established, and hypnosis often proves a royal road to those memories, although it still leaves the task of integrating that memory into the waking life of the patient a painstaking task for the therapist. In addition to this recovery of past forgotten memories, hypnosis can enable subjects to recover memories of lost experiences in phenomenal and minute detail ordinarily not possible. By such hypermnesia minor clues to a personality disturbance or emotional conflict otherwise not accessible become available.

Based to some degree upon the mechanisms of amnesia and hypermnesia is another phenomenon termed *regression*. By this is meant the capacity of hypnotic subjects, upon suitable suggestions and instructions, to develop an amnesia for a definite period of life and to revivify and reestablish the memories and patterns and habits of an earlier period. Thus, a 25-year-old subject can be induced to develop a profound amnesia for all events of his life subsequent to the age of 15 years and to reassume his actual modes and habits of behavior and response belonging to his 15-year-old level of development.

The actual technique of so reorienting a subject to an earlier age level is complicated and difficult, and the process easily results in errors unless extreme care in suggestion is exercised, nor can regression behavior be accepted too readily and uncritically. However, experimental and therapeutic studies have disclosed the feasibility and usefulness of this procedure, and in addition have shown that profound psychosomatic changes accompany the process. Two such instances are given in the issue of *Psychosomatic Medicine* previously mentioned.

*Suggestibility*, necessarily a primary feature of hypnosis, is always present and constitutes the basic consideration upon which the trance and its attendant phenomena are based. Additionally, suggestibility plays another role after the trance is induced, in that any desired behavior can be suggested to the subject and an adequate performance can be secured, provided that the suggestions are not offensive to the subject. Thus, in the medical situation, the recovery of memories, the development of amnesias, identifications, and anesthesias, the causing of dreams, emotional conflicts, hallucinations, disorientation, and so forth can be produced in the patient during the course of therapy as a measure of meeting problems, developing insights, and reorganizing the psychic life.

*Automatic writing* and *crystal-gazing*, two somewhat comparable phenomena, both long known but superstitiously regarded, are easily elicited in the trance state and are often of great value in psychotherapy. In response to suggestion the subject writes automatically and without awareness and thus may be induced to uncover amnesic material or to disclose necessary information otherwise inaccessible or which the personality is not yet strong enough to face. Or the subject may see vividly and clearly in a crystal the enactment of long-forgotten traumatic experiences and thus achieve a realization of their actuality and reality to him as a person.

*Posthypnotic suggestion* is one of the most significant of all hypnotic phenomena. By this measure subjects can be given instructions in the trance to govern their future behavior, but only to a reasonable and acceptable degree. Thus, the subject may be instructed that at some future date he is to perform a certain act. At the specified time the subject executes his bidding, but believes his performance self-ordered and spontaneous. As a therapeutic measure, posthypnotic instructions are of great value, but if improperly used they are ineffectual and futile. They need to be used primarily as a measure of providing the patients with an opportunity to develop insight and to integrate their behavior.

*Somnambulism* is another form of hypnotic behavior always significant of a deep trance state. In this condition subjects behave and respond as if they were wide awake and may even deceive observers with their seeming wakefulness. This state is the most suitable for the deeper forms of psychotherapy and can be induced by repeated hypnosis in at least 70 percent of all subjects.

## **THE VALUES OF HYPNOSIS**

To the medical doctor, the values of hypnosis in medical science are of first importance. That hypnosis can contribute to the scientific study of human behavior, normal and abnormal, is self-evident, since it permits experimentation and investigation not ordinarily feasible and under conditions difficult or even impossible to obtain in the waking state. Thus, it possesses values of a basic character in the development of a more adequate scientific understanding of the medical problems arising from disturbances in

human behavior and adjustment. These values alone would warrant continued hypnotic work.

Additionally, hypnosis possesses other values of paramount interest to the physician as an individual. Foremost of these is the education it gives the physician in understanding, sympathizing and dealing effectually with that vast array of emotional conflicts, fears, anxieties, uncertainties, psychoneurotic complaints and psychosomatic disturbances that constitute so large a part of the problems presented to every medical practitioner. These are problems that cannot be treated with drugs or surgery nor with the simple statement that "there is nothing wrong with you physically."

Such patients are in need of therapy, therapy of the class that falls under the heading of the "art of medicine." This is essentially a physician-patient relationship that permits the physician to enable the patient to capitalize upon every positive thing he has to reach a satisfactory adjustment in life rather than become psychologically invalidated.

The physician who learns hypnosis and thus learns how and when and why to give suggestions effectively to hypnotic subjects is literally taking a postgraduate course in how to suggest to patients the attitudes, insights, understandings, and methods of behavior that will enable them to adjust more adequately in life. In the general practice of medicine it is not only the drug dispensed but the physician's manner of handling the patient that constitutes the actual turning point in the patient's illness, his attitude toward himself and toward life. The entire history of medical practice emphasizes the tremendous factor of the human relationship, and physicians who have trained themselves in hypnosis have acquired special experience that stands them in good stead in building up their art of medicine, even though they may not utilize hypnosis directly.

As an actual medical therapeutic procedure, hypnosis possesses definite and demonstrated values. Certain early psychoneuroses, behavior problems, personality maladjustments, circumscribed neuroses, and psychosomatic disturbances are frequently susceptible to intelligently conceived hypnotic psychotherapy. Such therapy, however, should not be directed merely to the alleviation of a symptom or to the forcing of the patient to adopt better adjustment patterns. Therapeutic effects thus achieved are short-lived and account for the majority of failures. Successful hypnotic psychotherapy should be systematically directed to a reeducation of patients, a development of insight into the nature of their problems, and the promotion of their earnest desires to readjust themselves to the realities of life and the problems confronting them. Too often hypnosis is employed simply to relieve a symptom, and there is a failure to capitalize upon the peculiar intense, effective physician-patient relationship engendered by the hypnosis which constitutes the actual point of departure in effecting a psychotherapeutic reordering of the patient's life adjustment and a healthy integration of the personality.

Another field of application now just developing for the utilization of hypnotic therapy lies in the treatment of the acute psychiatric war disturbances occurring in front-line action. Under these conditions present findings indicate that the induction of a deep trance, the building of an intensely satisfying interpersonal relationship between the

physician and each patient and then permitting the patients to verbalize in this protected situation their fears and anxieties, their horror and distress, and then to take inventory of themselves, of their self-confidence, their abilities, their ambitions and desires is effecting a high percentage of recovery—as, indeed, might logically be expected.

### **ILLUSTRATIVE CASE HISTORY**

To illustrate the actual application of hypnosis to a specific medical problem, the following case history is presented. This account has been selected because it demonstrates clearly both the medical and the psychological aspects of a total problem reflected in a single symptom which could easily have been the point of departure for a serious, prolonged neurotic disturbance, and also because the account permits the reader to recognize readily the psychological significance and the rationale of each step in the therapy employed. The total time spent in treating the patient was slightly over three hours. Such an expenditure of time was warranted by the nature of the case and justified by the results obtained, and it illustrates the need in hypnotic therapy to allot time as freely as is done in surgery.

That so systematic and elaborate a procedure of hypnotic therapy was necessary for the patient described is open to question. Perhaps a simpler approach would have succeeded, but adequate therapy of the patient was the goal sought, and there was no thought of experimentation to determine how economical of effort the therapist might be in handling this particular problem. Failure in attempts at hypnotic therapy always increases the difficulty of further efforts at therapy. Hence, for the benefit of the individual patient, extensive care and effort is always warranted.

The patient, a woman in her middle thirties, was referred to me by her physician for hypnotic therapy because of hysterical urinary retention of fourteen days' duration, and an increasing neurotic reaction of fright, terror, and panic over her condition. The history secured contained the following significant facts.

She had been recently married after having despaired of marriage for many years because of her belief that she was not physically attractive. Following a brief honeymoon, she had developed an acute nonspecific urethritis and cystitis, which, because of her educational background in medical science, had frightened her seriously. The infection yielded rapidly to medication, but during the course of her treatment she had been catheterized several times. This had embarrassed and distressed her greatly. Just before her discharge from the hospital as recovered, her husband received notice to report for induction, a notification arriving much sooner than had been anticipated. She reacted to this with intense grief but soon composed herself and began to rearrange her plans for the future.

Some hours thereafter she had found herself unable to void. Repeated futile efforts over a period of several hours had increased her anxiety and discomfort seriously and she had to be catheterized. Thereafter catheterization twice daily for two weeks was necessary, since various measures of encouragement, reassurance, and sedation failed. The patient responded to this with increasing alarm and terror because of her helplessness. Nor was

the general situation helped by the patient's own realization that her symptom might be hysterical, since she regarded hysteria as much worse than an organic disability.

The actual therapeutic procedure was simple. She was given an evening appointment so that ample time free from interruption would be available. The history furnished by her physician was confirmed and elaborated by a casual, comfortable questioning and discussion of the patient's problem as a means of alleviating her anxiety.

She was then sent to the lavatory with firm instruction to discover if her symptoms still persisted and to make certain that she really needed treatment. Thus, she was given the first real doubt about the continuance of her difficulty. To have sent her to the lavatory with instruction to void would have courted therapeutic failure, since inability to obey such a command would seemingly have demonstrated my incapacity to handle her problem. But to be sent to discover if she really needed treatment had the effect of convincing her of my complete confidence in my therapy and of my unwillingness to use it unless actually required. She returned to report that her symptom was still present, whereupon she was asked if she wished me to proceed with therapy. Upon her assent, the explanation was offered that before therapy would be undertaken at all, it would be necessary to discover how capable a hypnotic subject she was as a preliminary to dealing with her problem therapeutically. She expressed some disappointment at this delay in therapeutic hypnosis, but recognized the desirability of permitting me to follow my own procedure.

Accordingly, a light trance was induced and simple hypnotic phenomena elicited, and this was followed by the induction of a fairly deep trance during which the patient was called upon for a continued manifestation of hypnotic phenomena. This procedure was simply a means of teaching her effectively that she could execute hypnotic instructions readily and adequately and constituted a process of building up her confidence in her ability to obey any instructions given to her.

She was then sent to the lavatory in the trance state with firm instructions *not* to empty her bladder but instead to have a bowel movement. However, with careful emphasis, these instructions were qualified by further suggestion that she probably would *not* have a bowel movement, since she really *did not need* to have one, and this idea was stressed repeatedly. Thus, by implication she was given to understand effectively that excretory activity was not a matter of response to hypnotic suggestion, however strong, but a *function of an actual bodily need that could be aided by hypnotic suggestion*.

Additionally, the failure to urinate in this situation would have a new and important meaning to the personality—namely, one of obedience to the hypnotist's instructions and not one of personal inability. Also, in relation to the bowel movement, the patient would have the perverse satisfaction, characteristic of neurotic behavior, of failing to obey the therapist's instructions in relation to an unimportant consideration and not in relation to her actual symptom.

The patient obeyed instructions as intended, whereupon the suggestion was offered that she might like to discuss in detail, while still in the trance state, her general immediate

life situation. She agreed, and there followed a detailed, systematic, comprehensive, psychotherapeutic discussion and appraisal of her depreciation of her appearance, her despair about ever getting married, her sexual adjustment, her infection and the fears it engendered, her husband's impending induction, and the neurotic utilization of invalidism to escape problems. Every effort was made to give the patient insight into her situation and to organize her thinking constructively so that she would be able to face her problems adequately instead of retreating from them into neurotic illness. However, at no time was any direct psychological interpretation made of her urinary retention. In fact, it was not even mentioned specifically. Instead, reliance was placed upon the patient's own thinking and intelligence to make the proper psychological interpretation of her symptom when she became ready for that realization.

When the patient seemed to have adequate understanding of her situation and its probable significance to her personality, return was made indirectly to her symptom. In the guise of casual conversation she was reminded of the practice of little children at play to suppress the need for urination until the last possible moment and then to rush frantically to the bathroom where any unexpected delay would result in a wetting of their clothes.

As soon as the patient understood this general statement, she was asked with much urgency to tell me approximately how long it would take her to reach her home after I dismissed her, what route she would follow, an approximation of the distance from the pavement to the front door, the location and the length of the stairway leading upstairs, and how far down the upstairs hallway the bathroom was located.

When the patient had given this information as accurately as she could she was given a rapid series of urgent, strongly persuasive suggestions to the effect that:

1. She would leave for home feeling generally comfortable and at ease and not thinking about anything specific but just simply absorbed in quietly enjoying the ride home.
2. That during the last 20 minutes of the trip home there would come to her mind vague fears that she might wet herself, which she would promptly suppress, only to have them recur with increasing frequency and insistence until finally they would become an annoying and even distressing conviction that if she did not arrive home soon she would surely wet herself.
3. That the last five minutes of the trip home she would spend in a state of feverish anxiety and that she would be unable to think of anything except whether she would be able to hold out long enough to rush through the door, up the stairway, and into the bathroom where she then could relax completely and be comfortable all over.
4. That when she was relaxed and was comfortable all over, she could then have a full recollection and understanding and memory of all those things she needed to know to meet her life situation without handicaps.

These suggestions were given repetitiously, urgently and with great rapidity until it was certain the subject understood them sufficiently well to execute them. Then, after

instruction to have amnesia for all trance events and suggestions, she was awakened and promptly dismissed. Her husband, who had accompanied her, was instructed to drive home quietly, commenting only on the beauty of the night, acceding to any demands of his wife that he drive faster but to keep within the speed limits, and asking no questions of any sort.

Subsequent reports from the husband, the patient, and the referring physician disclosed the effectiveness of these suggestions and success of the therapy, both in relation to her symptom and her adjustment to her husband's military status. Inquiry a year later disclosed no recurrence of her problem.

## **CONCLUSION**

To summarize, the age-old attitude of superstitious awe, fear, incredulity, and antagonism toward hypnosis is now being rapidly replaced by an appreciation of its scientific values. In its place is a growing, constructive recognition of hypnosis as both a therapeutic medical procedure and a means of acquiring a sympathetic understanding and appreciation of human nature and behavior requisite to the adequate practice of psychotherapy and the art of medicine.

## **Reference**

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# **Hypnotic Techniques for the Therapy of Acute Psychiatric Disturbances in War**

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Ever since the first primitive medicine man attempted to use hypnosis in some form to treat his savage patients, there has persisted a general tendency to regard hypnosis, its techniques, its methods, and its applications as something beyond the ken of common man, as mysterious, magical, and occult, based upon and derived from special powers, a ritual of mystical passes and an abracadabra of verbal commands. Only recently has the rapid growth of scientific interest in hypnotism made possible the recognition of hypnosis as a special and highly significant intrapersonal state or condition clinically important, deriving from interpersonal relationships and valuable for both intra- and interpersonal significances. Also, there has been a progressive realization that practically all normal people as well as many of those suffering from certain types of mental disturbances can be hypnotized under proper circumstances; and, similarly, that anyone reasonably interested and intelligent can learn to hypnotize even as anyone can learn to do surgery. Special talents and abilities, other than a reasonable degree of aptitude, are necessary only to achieve historical prominence. In other words, the field of hypnosis is open to any person willing to qualify by interest, study and experience, and the intelligent use of hypnosis depends essentially upon a background and foundation of personal interest and training.

The technique for the induction of hypnotic trances is primarily a function of the interpersonal relationships existing between subject and hypnotist. Hence, hypnotic techniques and procedures should vary according to the subject, circumstances, and the purposes to be served. Furthermore, since hypnosis is dependent fundamentally upon the subject's cooperativeness and his willingness to be hypnotized, any technique eliciting the necessary cooperation is adequate in this highly specialized interpersonal relationship. Indeed, competent hypnotists avoid any rigidity in technique and properly adapt it to the personality needs of their subjects in the immediate situation.

A variety of individual approaches may be employed, but they need to be directed especially to the development in the subject of full confidence and security in the hypnotist, his willingness to participate in any legitimate procedure and his readiness to yield to an experience which is understandable, though perhaps painfully, of value to him as a personality. To this end, some subjects need to feel themselves dominated by the hypnotist, others want to be coaxed or persuaded, some wish to go into the trance as a result of joint cooperative endeavor, and there are those who wish, or more properly need, to be overwhelmed by a wealth of repetitious suggestions guiding every response

they make. The actual interpersonal relationship established between subject and hypnotist may be one purely of authority-subservience, of father-child, or more frequently physician-patient. In the armed forces, however, hypnotists occupy a position of special vantage. They combine the significant prestige of both an officer and a physician, and this is further enhanced by the training of the ranks in habitual, unquestioning obedience, which leads easily to the ready acceptance of hypnotic suggestions. However, in this regard, much more is to be accomplished when medical officers minimize their authoritarian status as officers and deal with their patient primarily at a medical level, thereby transforming their authority into additional prestige as a physician concerned not with authority but with professional interest and effort.

Another important consideration in inducing trances, especially among members of the armed forces, where group relationships predominate, is the utilization of the group situation itself. Even among civilians, where greater emphasis is placed upon individualism, the induction of a trance in the group situation, aside from the exceptional case, decreases the time and effort required and leads to a more rapid and better training of the individual subject. Especially is this true when a trained or unusually capable subject is used as an object lesson for the group. Even those subjects who resist hypnosis in a group situation respond privately much more readily after having observed group trance behavior. The use of drugs to induce hypnotic trances is often feasible in excited, fearful, emotionally unstable, disturbed, or unconsciously uncooperative patients. Alcohol, paraldehyde, the barbiturates, and even morphine can be used, although alcohol is the drug of preference because of its rapid transient effects, its relief of inhibitions and anxieties, and the absence of narcotic effects. Although in certain cases narcotic drugs are decidedly useful, there is always the possibility of narcotic effects masking or excluding hypnotic responses. However, experience and clinical judgment are the means of learning how and when to use drugs as an adjunct to hypnosis.

Trance states for therapeutic purposes may be either light or deep, depending upon such factors as the patient's personality, the nature of the problem, and the stage of therapeutic progress. Sometimes light hypnosis is all that is needed even in a severe problem, and sometimes deep hypnosis is required for a relatively mild disturbance. Clinical experience and judgment are the best determinants, and there is always the possibility of recourse to the other type of trance in case of failure to achieve results.

Another highly significant general consideration in the medical use of hypnosis, often overlooked or completely disregarded, is its striking usefulness even when it is not the indicated therapeutic procedure. This usefulness lies in its effectiveness in building up patient morale and in establishing a physician-patient relationship of profound trust, confidence, and security that so often constitutes a vital factor in helping the patient to adjust adequately to the problems of invalidism. Especially is this so when the invalidism involves serious psychic distress, anxiety, and fear such as characterize the acute psychiatric disturbances of war.

An illustrative example, cited from personal experience to demonstrate the usefulness of hypnosis when not the indicated therapy, is the instance

of a recovered drug addict hospitalized for major surgery. She developed an acute anxiety state, was unable to sleep, and refused sedative or narcotic medication because of her intense fear that it might lead to a recurrence of her drug addiction. Sympathetic interest, reassurance, and postponement of the operation for another day failed to lessen her panic reactions. The induction of a hypnotic trance with extensive posthypnotic suggestions governing sleep; the development of an emotional feeling of comfort, security, and trust; and the induction of subsequent trances resulted in an uneventful pre- and post-operative course of events.

The actual technique for inducing hypnotic trances varies greatly from one hypnotist to another and from one subject to the next. No set, rigid technique can be followed with good success since, in medical hypnosis, the personality needs of the individual subject must be met, and such is the purpose of hypnosis rather than the mere induction of a trance. Additionally, there is an equally important need for the hypnotist to use that technique which permits him to express himself most satisfactorily and effectively in the special interpersonal relationship which constitutes hypnosis.

The procedure most uniformly successful in initiating hypnosis consists in prefacing the actual induction of the trance by a simple, informative discussion of hypnosis as a scientific medical phenomenon, taking care to develop the patient's interest in it as a personal experience. During such discussion patients should be given opportunity to express their attitudes, fears, misconceptions of hypnosis; simple, unpersuasive explanations, corrections, and reassurances can be offered. Also, such a discussion is an effective means of giving the intended subjects a wealth of information and suggestions to govern their own hypnotic responses.

The group approach is an effective manner of accomplishing this, despite its seemingly time-taking and laborious nature. My procedure, which is also being used by several former associates now in the army and employing hypnosis therapeutically for acute psychiatric war disturbances, consists in presenting before a group of 10 to 30 interested persons, among whom are intended hypnotic patients, a comprehensive lecture and a demonstration of hypnosis, using first a trained subject and then volunteer subjects.

The results obtained are invariably profitable. A favorable and appreciative attitude toward hypnosis is engendered; new subjects useful in the future are secured; fears, doubts and misconceptions are dispelled; and the intended hypnotic patients develop a most helpful, satisfying sense of comfort and confidence in hypnosis.

How successful this approach may be is shown by the following instance. After a lecture and demonstration before a group of 15 persons, 12 of whom were intended for future intensive hypnotic work, it was possible to begin the proposed work with all 12 subjects without further individual preparation. While such success is not always to be achieved, the sense of belonging to the group, the freedom to participate or merely to observe, the visual instruction afforded, and the opportunity to identify with the subjects employed are potent factors in securing the confidence, cooperation, and rapport necessary to hypnotize

the individual subject. While this approach is not always applicable, my tendency is to rely upon it as often as possible.

The procedure of the trance induction with the individual subject is relatively simple after the preliminary establishment of rapport and confidence. A series of suggestions is given to the effect that the subjects will feel themselves relaxed, tired and sleepy, that they will become increasingly tired and will wish to sleep and will feel themselves beginning to go to sleep, and that as this continues they will want, with progressive intensity, to enjoy more and more the comfort and satisfaction of a deep, sound, restful sleep in which their only desire is to sleep with no other interest than to enjoy that sleep.

A second step of technique I have found of immense value, and which I usually employ concomitantly with the sleep suggestions, is the development of the subject's own feeling of active participation in the process of going into a trance. The reason for this is that in medical hypnosis there is a great need for the patient to participate actively in any reorganization of his psychic life. Hence his behavior should not be limited to the level of passive receptiveness and responsiveness so often mistakenly assumed to be all that hypnosis permits.

To secure active participation, hand levitation suggestions are given as the first step. That is, the subject is told that, as he goes to sleep, his hand will gradually and involuntarily begin to lift up in the air. This he may not notice at first, but when he does become aware of it, he will find himself tremendously interested and absorbed in sensing and enjoying that effortless, involuntary movement of his hand and arm. Thus, the subject is given the opportunity of observing his hypnotic response as a personal experience that is occurring within himself. There follow suggestions that soon the direction of the hand movement will change, that he is to be greatly interested in discovering what the new direction may be. This suggestion does result in an alteration of the hand movement, an alteration recognized by the subject as not determined in direction by specific hypnotic suggestions but determined by the continuing processes within himself as a hypnotic subject. This gives him a growing realization of his active participation in a progressive intrapsychic experience in which he plays an undefined but definite directive role governed by forces within him.

This can be followed by suggestions directing the subject's attention to those other possible psychosomatic manifestations characteristic of hypnotic behavior, reported upon previously (Erickson, 1943a, b, c, d) with the result that the subjects become absorbed in sensing their own psychosomatic phenomena as a personal experience in which they are active. Thus the situation is transformed from one of passive responsiveness for the patient to one of active interest, discovery, investigation, and participation in these changes produced by hypnosis. This is further enhanced by his realization that these changes in him are the result of his response to hypnosis itself and that they are occurring within him and are not forced upon him by specific suggestions. Thus, from intrapsychic evidence he has full opportunity to understand hypnosis as a significant and vital personality experience.

The crucial step of bridging the gap between light hypnosis and a deep trance can often be accomplished easily by letting the subject assume the entire responsibility for this further progress instead of resorting to the use of overwhelming, compelling suggestions by the hypnotist.

The method I usually employ is to suggest that the subject continue to sleep more and more deeply and to his own satisfaction and that, as he does so, his hand—automatically, involuntarily, and perhaps without his knowledge—will slowly move up and touch his face. However, his hand will not and must not touch his face until he is in a deep trance. Then, the touching of his face will be merely a signal for his own realization that he is in a profound trance.

Thus, suggestions are given to the subject, but the execution of them, the rapidity and time of response, and their effectiveness are made the responsibility of the subject, and they are contingent upon processes taking place within him and related to his own needs. In this way the suggestions are made to serve a more important function than that of eliciting passive obedience to the hypnotist. Consequently, hypnosis becomes a vital personality experience in which the hypnotist plays primarily the role of an instrument, merely guiding or directing processes developing within the subject.

This measure of securing the hypnotic subject's participation in the development of responses to suggestions is of value not only in inducing trances but also in eliciting hypnotic behavior of all sorts, whether simple experimental phenomena or therapeutic objectives. Indeed, in medical hypnosis the result obtained should derive primarily from the subject's activity and participation since it is his needs and problems that must be met.

Too often the unwarranted, unsound assumption is made that, because hypnosis can be induced by suggestion, whatever develops from the trance must be completely the result of suggestion and is only expressive of suggestions, that hypnosis as a special psychological state is in itself of no importance, and that what the hypnotist says, does, and understands is all-important. However, in the hypnotic situation the factor of paramount importance is hypnosis as a potent personality experience of peculiar and special importance to the subject.

This discussion of technique should demonstrate that the hypnotic subject can participate actively in his own hypnotic trance in an indefinite but nonetheless significant manner, and in direct relation to his own needs; and that hypnotic technique oriented to this understanding can reasonably offer the hypnotic patient an opportunity to deal with his own needs and problems in accord with his own psychological structure and experiences.

The reasons for this exposition of hypnotic technique are several. Personal experience with acute personality disturbances and the experience of former associates now in the army employing hypnosis for the therapy of acute psychiatric war disturbances suggest the value of much more extensive utilization of hypnosis as a therapeutic procedure. Also, hypnosis lends itself readily to easy and repeated use and requires no equipment

other than training and experience. Additionally, it gives the patient an opportunity to re-associate and reorganize the psychological complexities and disturbances of his psychic life under special conditions that permit him to deal with his problems constructively, free from overwhelming distress.

In the actual application to acute psychiatric disturbances hypnosis can reasonably be expected to offer several therapeutically significant advantages.

Experience to date with narcosis therapy, which is proving a most useful procedure, has indicated the great importance of the interpersonal relationship of physician and patient. In this connection hypnosis as a means of building up a favorable rapport between patient and physician can scarcely be equaled.

Experience also shows that narcosis therapy without verbalization by the patient of his fears and anxieties is ineffective. The hypnotic state can give the patient this same important avenue of self-expression without the handicap of narcotic effects and even make possible for him the verbalization of traumatic material otherwise repressed and unavailable to him.

Also, properly oriented, hypnotic therapy can give the patient that necessary understanding of his own role in effecting his recovery and thus enlist his own effort and participation in his own cure without giving him a sense of dependence upon drugs and medical care. Indeed, hypnosis offers the patient a sense of comfort and an attitude of interest in his own active participation in his therapy.

Probably of even greater significance is the opportunity hypnosis gives the patient to dissociate himself from his problems, to take an objective view of himself, to make an inventory of his assets and abilities, and then, one by one, to deal with his problems instead of being overwhelmed with all of them without being able to think clearly in any direction. Hypnosis offers an opportunity to control and direct thinking, to select or exclude memories and ideas, and thus to give the patient the opportunity to deal individually and adequately with any selected item of experience.

Finally, hypnosis offers both to the patient and the therapist a ready access to the patient's unconscious mind. It permits a direct dealing with those unconscious forces which underlie personality disturbances, and it allows a recognition of those items of individual life experience significant to the personality and to which full consideration must be given if psychotherapeutic results are to be achieved. Hypnosis alone can give the ready, prompt, and extensive access to the unconscious, which the history of psychotherapy has shown to be so important in the therapy of acute personality disturbances.

# Hypnotic Psychotherapy

Milton H. Erickson

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Since the most primitive times hypnosis has been employed almost universally in the practice of religious and medical rites to intensify belief in mysticism, magic, and medicine. The impressive, bewildering character of hypnotic manifestations and the profoundly inexplicable, seemingly miraculous psychological effects upon human behavior achieved by the use of hypnosis, have served to bring about two general contradictory attitudes toward it. The first of these is the unscientific attitude of superstitious awe, fear, disbelief and actual hostility, all of which have delayed and obstructed the growth of scientific knowledge of hypnosis.

The second attitude is one of scientific acceptance of hypnosis as a legitimate and valid psychological phenomenon, of profound importance and significance in the investigation and understanding of human behavior, and of the experiential life of the individual. This attitude had its first beginnings with the work of Anton Mesmer in 1775, who tempered his scientific approach to an understanding of hypnosis by mystical theories. Nevertheless, Mesmer did succeed in demonstrating the usefulness and effectiveness of hypnosis in the treatment of certain types of patients otherwise unresponsive to medical care. Thus he laid the foundation for the therapeutic use of hypnosis and for the recognition of psychotherapy as a valid psychological medical procedure.

Since then there has been a long succession of clinically trained men who demonstrated the usefulness of hypnosis as a therapeutic medical procedure and as a means of examining, understanding and reeducating human behavior. Among these was James Braid, a Scotch physician who, in 1841, first discredited the superstitious mystical ideas about the nature of hypnosis, or "mesmerism," as it was then called. Braid recognized the phenomenon as a normal psychological manifestation, coined the terms of "hypnosis" and "hypnotism," and devised a great variety of scientific experimental studies to determine its medical and psychological values.

Following Braid, many outstanding scientists, including both clinicians and later psychologists, accepted his findings and contributed increasingly to the scientific development of hypnosis despite the hampering heritage of traditional misconceptions, fears, and hostilities that have surrounded it and still do among the uninformed.

As yet, a scientific knowledge of hypnosis is still in its infancy. Theories of its nature are too general and too inadequate. Methods of application constitute a problem warranting extensive investigation. A general appreciation of the need to integrate hypnotic studies

with current knowledge is only slowly developing. The types of disorders for which it is best suited are still undetermined. New variations in techniques need to be developed.

As for the utilization of hypnosis in psychotherapy, this too, is still in its infancy. Traditions and traditional ways of thinking, the rigid self-sufficiency of various schools of psychotherapy, and the human tendency to fear the new and untried have hampered studies in this field. Only during the past 25 years has there been an increasing number of studies demonstrating hypnosis to be of outstanding value in investigating the nature and structure of the personality, in understanding normal and abnormal behavior, in studying interpersonal and intrapersonal relationships and psychosomatic interrelationships. Also, there have been extensive developments in the utilization of hypnosis as an effective instrument for psychotherapy. During the Second World War there was a tremendous increase in the recognition and utilization of hypnosis as a valuable form of psychotherapy.

Any discussion of hypnotic psychotherapy or hypnotherapy requires an explication of certain general considerations derived directly from clinical observation. In the following pages an effort will be made to indicate some of the misconceptions, inadequate understandings, oversights, and failures of differentiation that hamper or militate against the acceptance and usefulness of hypnotherapy. Also, material will be given to illustrate techniques, and explanations of their use will be given.

## ***DIFFERENTIATION BETWEEN TRANCE INDUCTION AND TRANCE STATE***

One of the first considerations in undertaking hypnotic psychotherapy centers around the differentiation of the patient's experience of having a trance induced from the experience of being in a trance state. As an analogy, the train trip to the city is one order of experience; being in the city is another. To continue, the process of inducing a trance should be regarded as a method of teaching patients a new manner of learning something, and thereby enabling them to discover unrealized capacities to learn, and to act in new ways which may be applied to other and different things. The importance of trance induction as an educational procedure in acquainting patients with their latent abilities has been greatly disregarded.

Both the therapist and the patient need to make this differentiation, the former in order to guide the patient's behavior more effectively, the latter in order to learn to distinguish between conscious and unconscious behavior patterns. During trance induction the patient's behavior is comprised of both conscious and unconscious patterns, while the behavior of the trance state should be primarily of unconscious origin.

The failure of such distinction or differentiation between the induction and the trance often results in patients attempting to perform the work of the trance state in the same fashion as they learned to develop a trance. That is, without proper differentiation, patients will utilize both conscious and unconscious behavior in the trance instead of

relying primarily upon unconscious patterns of behavior. This leads to inadequate, faulty task performance.

Although patients can, and frequently do, make this distinction spontaneously, the responsibility, though often overlooked, rests properly with the therapist. To ensure such differentiation, the trance induction should be emphasized as a preparation of the patient for another type of experience in which new learnings will be utilized for other purposes and in a different way. This education of patients can be achieved best, as experience has shown, by teaching them how to become good hypnotic subjects, familiar with all types of hypnotic phenomena. This should be done before any attempt is made at therapy. Such training, while it postpones the initiation of direct therapy, actually hastens the progress of therapy since it gives the patient wider opportunities for self-expression. For example, the patient who can develop hypnotic hallucinations, both visual and auditory, manifest regressive behavior, do automatic writing, act upon posthypnotic suggestions, and dream upon command is in an advantageous position for the reception of therapy.

As for the trance state itself, this should be regarded as a special, unique, but wholly normal psychological state. It resembles sleep only superficially, and it is characterized by various physiological concomitants, and by a functioning of the personality at a level of awareness other than the ordinary or usual state of awareness. For convenience in conceptualization, this special state, or level of awareness, has been termed "unconscious" or "subconscious." The role in hypnotic psychotherapy of this special state of awareness is that of permitting and enabling patients to react, uninfluenced by their conscious mind, to their past experiential life and to a new order of experience which is about to occur as they participate in the therapeutic procedure. This participation in therapy by the patients constitutes the primary requisite for effective results.

## **ROLE OF SUGGESTION IN HYPNOSIS**

The next consideration concerns the general role of suggestion in hypnosis. Too often the unwarranted and unsound assumption is made that, since a trance state is induced and maintained by suggestion, and since hypnotic manifestations can be elicited by suggestion, whatever develops from hypnosis must necessarily be completely a result of suggestion and primarily an expression of it.

Contrary to such misconceptions, the hypnotized person remains the same person. His or her behavior only is altered by the trance state, but even so, that altered behavior derives from the life experience of the patient and not from the therapist. At the most the therapist can influence only the manner of self-expression. The induction and maintenance of a trance serve to provide a special psychological state in which patients can reassociate and reorganize their inner psychological complexities and utilize their own capacities in a manner in accord with their own experiential life. Hypnosis does not change people nor does it alter their past experiential life. It serves to permit them to learn more about themselves and to express themselves more adequately.

Direct suggestion is based primarily, if unwittingly, upon the assumption that whatever develops in hypnosis derives from the suggestions given. It implies that the therapist has the miraculous power of effecting therapeutic changes in the patient, and disregards the fact that therapy results from an inner re-synthesis of the patient's behavior achieved by the patient himself. It is true that direct suggestion can effect an alteration in the patient's behavior and result in a symptomatic cure, at least temporarily. However, such a "cure" is simply a response to the suggestion and does not entail that reassociation and reorganization of ideas, understandings, and memories so essential for an actual cure. It is this experience of reassociating and reorganizing his own experiential life that eventuates in a cure, not the manifestation of responsive behavior which can, at best, satisfy only the observer.

For example, anesthesia of the hand may be suggested directly, and a seemingly adequate response may be made. However, if the patient has not spontaneously interpreted the command to include a realization of the need for inner reorganization, that anesthesia will fail to meet clinical tests and will be a pseudo-anesthesia.

An effective anesthesia is better induced, for example, by initiating a train of mental activity within the patient himself by suggesting that he recall the feeling of numbness experienced after a local anesthetic, or after a leg or arm went to sleep, and then suggesting that he can now experience a similar feeling in his hand. By such an indirect suggestion the patient is enabled to go through those difficult inner processes of disorganizing, reorganizing, reassociating, and projecting of inner real experience to meet the requirements of the suggestion, and thus the induced anesthesia becomes a part of his experiential life instead of a simple, superficial response.

The same principles hold true in psychotherapy. The chronic alcoholic can be induced by direct suggestion to correct his habits temporarily, but not until he goes through the inner process of reassociating and reorganizing his experiential life can effective results occur.

In other words, hypnotic psychotherapy is a learning process for the patient, a procedure of reeducation. Effective results in hypnotic psychotherapy, or hypnotherapy, derive only from the patient's activities. The therapist merely stimulates the patient into activity, often not knowing what that activity may be, and then guides the patient and exercises clinical judgment in determining the amount of work to be done to achieve the desired results. How to guide and to judge constitute the therapist's problem, while the patient's task is that of learning through his own efforts to understand his experiential life in a new way. Such reeducation is, of course, necessarily in terms of the patient's life experiences, his understandings, memories, attitudes, and ideas; it cannot be in terms of the therapist's ideas and opinions. For example, in training a gravid patient to develop anesthesia for eventual delivery, use was made of the suggestions outlined above as suitable. The attempt failed completely even though she had previously experienced local dental anesthesia and also her legs "going to sleep." Accordingly, the suggestion was offered that she might develop a generalized anesthesia in terms of her own experiences when her body was without sensory meaning to her. This suggestion was intentionally vague since the patient, knowing the purpose of the hypnosis, was enabled by the vagueness of the

suggestion to make her own selection of those items of personal experience that would best enable her to act upon the suggestion.

She responded by reviewing mentally the absence of any memories of physical stimuli during physiological sleep, and by reviewing her dreams of walking effortlessly and without sensation through closed doors and walls and floating pleasantly through the air as a disembodied spirit looking happily down upon her sleeping, unfeeling body. By means of this review she was able to initiate a process of reorganization of her experiential life. As a result she was able to develop a remarkably effective anesthesia which met fully the needs of the subsequent delivery. Not until sometime later did the therapist learn by what train of thought he had initiated the neuro-psycho-physiological processes by which she achieved anesthesia.

### **SEPARATENESS OF CONSCIOUS AND SUBCONSCIOUS LEVELS OF AWARENESS**

Another common oversight in hypnotic psychotherapy lies in the lack of appreciation of the separateness of the possible mutual exclusiveness of the conscious and the unconscious (or subconscious) levels of awareness. Yet all of us have had the experience of having a word or a name "on the tip of the tongue" but being unable to remember it so that it remained unavailable and inaccessible in the immediate situation. Nevertheless, full knowledge actually existed within the unconscious, but unavailably so to the conscious mind.

In hypnotic psychotherapy too often suitable therapy may be given to the unconscious, but with the failure by the therapist to appreciate the tremendous need of either enabling the patient to integrate the unconscious with the conscious or of making the new understandings of the unconscious fully accessible, upon need, to the conscious mind. Comparable to this failure would be an appendectomy with failure to close the incision. It is in this regard that many armchair critics naively denounce hypnotic psychotherapy as without value, since "it deals only with the unconscious." Additionally, there is even more oversight of the fact, repeatedly demonstrated by clinical experience, that in some aspects of the patient's problem direct reintegration under the guidance of the therapist is desirable; in other aspects the unconscious should merely be made available to the conscious mind, thereby permitting a spontaneous reintegration free from any immediate influence by the therapist. Properly, hypnotherapy should be oriented equally about the conscious and unconscious, since the integration of the total personality is the desired goal in psychotherapy.

However, the above does not necessarily mean that integration must constantly keep step with the progress of the therapy. One of the greatest advantages of hypnotherapy lies in the opportunity to work independently with the unconscious without being hampered by the reluctance, or sometimes actual inability, of the conscious mind to accept therapeutic gains. For example, a patient had full unconscious insight into her periodic nightmares of an incestuous character from which she suffered, but as she spontaneously declared in the trance, "I understand those horrible dreams, but I couldn't possibly tolerate such an

understanding consciously." By this utterance the patient demonstrated the protectiveness of the unconscious for the conscious. Utilization of this protectiveness as a motivating force enabled the patient subsequently to accept consciously her unconscious insights.

Experimental investigation has repeatedly demonstrated that good unconscious understandings allowed to become conscious before a conscious readiness exists will result in conscious resistance, rejection, repression and even the loss, through repression, of unconscious gains. By working separately with the unconscious there is then the opportunity to temper and to control the patient's rate of progress and thus to effect a reintegration in the manner acceptable to the conscious mind.

### **ILLUSTRATIVE CASE HISTORY**

A 28-year-old-married man sought therapy because he believed implicitly that he did not love his wife and that he had married her only because she resembled superficially his mother, to whom he was strongly attached. In the trance state he affirmed this belief. During hypnotherapy he learned, in the trance state, that his marital problem had arisen from an intense mother-hatred disguised as over-solicitude and that his wife's superficial resemblance to the mother rendered her an excellent target for his manifold aggressions. Any attempt to make his unconscious understandings conscious confronted him with consciously unendurable tasks of major revisions in all of his interpersonal relationships and a recognition of his mother-hatred, which to him seemed to be both intolerable and impossible.

In psychotherapy other than hypnotic, the handling by the patient of such a problem as this would meet with many conscious resistances, repressions, rationalizations, and efforts to reject any insight. The hypnotherapeutic procedures employed to correct this problem will be given in some detail below. No attempt will be made to analyze the underlying dynamics of the patient's problem, since the purpose of this paper is to explicate methods of procedure, new techniques, the utilization of mental mechanisms, and the methods of guiding and controlling the patient's progress so that unconscious insight becomes consciously acceptable.

Early in the course of this patient's treatment it had been learned that he did not consciously dare to look closely at his mother, that he did not know the color of his mother's eyes or the fact that she wore dentures, and that a description of his mother was limited to "she is so gentle and graceful in her movements, and her voice is so soft and gentle, and she had such a sweet, kind, gracious expression on her face that a miserable neurotic failure like me does not deserve all the things she has done for me."

When, during hypnotherapy, he had reached a stage at which his unconscious understandings and insights seemed to be reasonably sufficient to permit the laying of a foundation for the development of conscious understandings, he was placed in a profound somnambulistic trance. He was then induced to develop a profound amnesia for all aspects of his problem and a complete amnesia for everything about his mother and his wife, except the realization that he must have had a mother. This amnesia included also

his newly acquired unconscious understandings. There are special reasons for the induction of such a profound amnesia or repression. One is that obedience to such a suggestion constitutes a relinquishing of control to the therapist of the patient's repression tendencies. Also, it implies to the patient that if the therapist can repress, he also can restore. In undertaking hypnotherapy it is important in the early stages to have the patient develop an amnesia for some innocuous memory, then to restore that memory along with some other unimportant but forgotten memory. Thus, an experiential background is laid for the future recovery of vital repressed material.

The other reason is that such an amnesia or induced repression clears the slate for a reassociation and reorganization of ideas, attitudes, feelings, memories, and experiences. In other words, the amnesia enables patients to be confronted with material belonging to their own experiential lives but which, because of the induced repression, is not recognized by them as such. Then it becomes possible for those patients to reach a critical objective understanding of unrecognized material from their own life experience, to reorganize and reassociate it in accord with its reality significances and their own personality needs. Even though the material has been repressed from both the working unconscious and the conscious, personality needs still exist and any effort to deal with the material presented will be in relationship to their personality needs. As an analogy, the child on a calcium-deficient diet knows nothing about calcium deficiency or calcium content but, nevertheless shows a marked preference for calcium-rich food.

After the induction of the amnesia, the next step was a seemingly casual, brief discussion of the meaning of feminine names. Then it was suggested that he see, sitting in the chair on the other side of the room, a strange woman who would converse with him and about whom he would know nothing except for a feeling of firm conviction that her first name was Nelly. Previous hypnotic training at the beginning of hypnotherapy had prepared him for this type of experience.

The patient's response to that particular name, as intended, was that of a hallucination of his mother whom he could not, because of the amnesia, recognize as such. He was induced to carry on an extensive conversation with this hallucinatory figure, making many inquiries along lines pertinent to his own problem. He described her adequately and objectively. He was asked to "speculate" upon her probable life history and the possible reasons there for. He was asked to relate to the therapist in detail all that Nelly "said" and to discuss this material fully. Thus, careful guidance by the therapist enabled him to review objectively, critically, and with free understanding a great wealth of both pleasant and unpleasant material, disclosing his relationships to his mother and his comprehension of what he believed to be her understandings of the total situation. Thus he was placed in a situation permitting the development of a new frame of reference at variance with the repressed material of his life experience, but which would permit a reassociation, an elaboration, a reorganization, and an integration of his experiential life.

In subsequent therapeutic sessions a similar procedure was followed, separately, with two other hallucinated figures, "spoken of" by Nelly as her son Henry and his wife Madge, neither of whom the patient could recognize because of his induced amnesia.

The hypnotic session with Henry was greatly prolonged since Henry "told" the patient a great wealth of detailed information which the patient discussed with the therapist freely and easily and with excellent understanding. The patient's interview with the hallucinatory Madge was similarly conducted.

Of tremendous importance in the eventual therapeutic result was the patient's report upon the emotional behavior he "observed" in the hallucinated figures as they related their stories, and his own objective, dispassionate appraisal of "their own emotions."

To explain this procedure it must be recognized that all of the material the patient "elicited" from the hallucinatory figures was only the projection of the repressed material of his own experience. Even though a profound repression for all aspects of his problem had been induced, that material still existed and could be projected upon others, since the projection would not necessarily lead to recognition. To illustrate from everyday experience, those personality traits disliked by the self are easily repressed from conscious awareness and are readily recognized in others or projected upon others. Thus, a common mental mechanism was employed to give the patient a view of himself which could be accepted and integrated into his total understandings.

The culminating step in this procedure consisted in having him hallucinate Nelly and Henry together, Madge and Henry, Nelly and Madge, and finally all three together. Additionally, he was induced to develop each of these various hallucinations in a great number of different life settings known from his history to be traumatic, such as a shopping trip with his wife which had resulted in a bitter quarrel over a minor matter, a dinner table scene, and a quarrel between his wife and his mother.

Thus the patient, as an observant, objective, judicious third person, through the mechanisms of repression and projection, viewed freely, but without recognition, a panorama of his own experiential life, a panorama which permitted the recognition of faults and distortions without the blinding effects of emotional bias.

In the next session, again in a profound somnambulistic trance, he was emphatically instructed to remember clearly, in full detail, everything he had seen, heard, thought, and speculated upon and appraised critically in relationship to Nelly, Henry, and Madge. To this he agreed readily and interestedly. Next he was told to single out various traumatic incidents and to wonder—at first vaguely, and then with increasing clarity—whether or not a comparable incident had ever occurred in his life. As he did this, he was to have the privilege of remembering any little thing necessary in his own history. Thus he was actually given indirect instructions to break down by slow degrees the induced amnesia or repression previously established.

The patient began this task slowly, starting with the simple declaration that a cup on the table, in a dinner scene he had hallucinated, very closely resembled one he had had since childhood. He next noted that he and Henry had the same first name, wondered briefly what Henry's last name was, then hastily observed that Madge and Henry evidently lived

in the same town as he did, inasmuch as he had recognized the store in which they quarreled so foolishly. He commented on Nelly's dentures and, with some reluctance, related his fears of dentists and of losing his teeth, and being forced to put up a "false front." As he continued his remarks, he became more and more revealing. Gradually he tended to single out the more strongly emotional items, spacing them with intervening comments upon relatively innocuous associations. After more than an hour of this type of behavior, he began to have slips of the tongue, which he would immediately detect; he became tense, and then, upon reassurance by the therapist, would continue his task. For example, in comparing Nelly's light-brown eyes with Madge's dark-brown eyes, he made the additional comment, "My wife's eyes are like Madge's." As he concluded his statement, he showed a violent startle reaction and, in a tone of intense surprise, repeated questioningly. "My wife?" After a moment's hesitation he remarked to himself, "I know I'm married. I have a wife. Her name is Madge. She has brown eyes like Madge. But that is all I know. I can't remember any more—nothing—nothing!" Then, with an expression of much anxiety and fear, he turned to the therapist and asked pleadingly, "Is there something wrong with me?"

Shortly he discovered the similarity between Nelly and his mother, then continued, with excellent understanding, by appraising Nelly as an unhappy neurotic woman deserving normal consideration and affection. This led to the sudden statement: "That applies to my mother too—Good God, Nelly is my mother, only I was seeing her for the first time—her eyes are brown—like Madge's. My wife's eyes are brown—her name is Madge—Madge is my wife."

There followed then a whole series of fragmentary remarks relating to traumatic situations, of which the following are examples:

"The fight at the store—that coat she bought—we almost broke our engagement—birthday cake—shoestring broke—Good God, what can I ever say to her?" After each utterance he seemed to be absorbed in recalling some specific, emotionally charged event in detail. After about 20 minutes of this behavior he leaned forward, cupped his chin in his hands, and lost himself in silent reflection for some minutes, terminating this by asking in a questioning manner, "Nelly, who is Nelly?" but immediately absorbed himself in reflection again. For some time longer he sat tense and rigid, shifting his gaze rapidly here and there and apparently thinking with great feeling. About 15 minutes later he slowly relaxed and, in a tired voice, declared. "That was hard. Henry is me. Now I know what I've been doing, what I've been doing here, and been doing all my life. But I'm not afraid anymore. I don't need to be afraid—not anymore. It's an awful mess, but I know how to clean it up. And I'm going to make an appointment with the dentist. But it's all got to take a lot of thinking—an awful lot, but I'm ready to do it."

Turning to the therapist he stated. "I'm tired, awful tired."

A series of questions and answers now disclosed that the patient felt satisfied, that he felt comfortable with the rush of new understandings he had experienced, that he knew that he was in a trance, and that he was at a loss to know how to let his conscious mind learn

what he now knew in his unconscious. When asked if he wanted some suggestions in that regard, he eagerly indicated that he did.

He was reminded of how the induced amnesia had been broken down by the slow filtering out of ideas and associations by outward projection where he could examine them without fear or prejudice and thus achieve an understanding. With each new understanding he had experienced further reorganization of his experiential life, although he could not sense it at first. This, as he could understand, was a relatively simple task, involving nothing more than himself and his thinking and feelings. To become consciously aware of his new understandings would involve himself, his thinking, his everyday activities, his own personal relationships, and the interpersonal relationships of other people. This, therefore, would be an infinitely more difficult task. Upon full understanding of this, an agreement was reached to the effect that he would continue to be neurotic in his everyday life, but as he did so, he would slowly and gradually develop a full conscious realization of the meaningfulness of his neuroticisms, first of the very minor ones and then, as he bettered his adjustments in minor ways, to progress to the more difficult problems. Thus, bit-by-bit, he could integrate his unconscious learnings with his conscious behavior in a corrective fashion which would lead to good adjustment.

The above paragraph is but a brief summary of the discussion offered the patient. Although he believed he understood the explanation the first time, it is always necessary, as experience has shown repeatedly, to reiterate and to elaborate from many different points of view and to cite likely incidents in which unconscious insights can break through to the conscious before patients really understand the nature of the task before them. A possible incident was cited for him by which to learn how to let unconscious learning become conscious. On some necessary trip to the store where the quarrel had occurred he would notice some clerk looking amused at something. He would then experience a strong feeling of amusement for no known reason, wonder why, discover that his amusement was tinged with a mild feeling of embarrassment, suddenly recall the quarrel with his wife in its true proportions, and thus lose his conscious resentments. A few other such incidents were also suggested and, as subsequently learned, were acted upon. He was then awakened from the trance and dismissed.

The patient's first step to effect a conscious integration, in accord with his trance declaration, was to visit, with much fear, his dentist, thereby discovering, in the dental chair, how grossly exaggerated his fears had been. Next, he found himself humming a song while putting on his shirt, instead of examining it compulsively for wrinkles, as had been his previous habit.

Examination of all the family photographs initiated a process of identification of himself, his mother, and his wife. He discovered for the first time that he resembled his father strongly and could not understand why he had previously believed so fully that he was the image of his mother. By way of the photographs he discovered the dissimilarities between his wife and his mother, and that dentures had actually altered his mother's facial appearance.

At first his adjustments were made singly and in minor matters, but after a few weeks larger and larger maladjustments were corrected. Usually, these were corrected without his conscious awareness until sometime later, a measure which had been suggested to him. For example, he had always visited his mother regularly at the hour of her favorite radio program, and he had always insisted on listening to another program which he invariably criticized unfavorably. Unexpectedly, one day, he became aware that, for several weeks, he had been making his visits at a different hour. With much amusement he realized that his mother could now listen to her favorite program, and, at the same time he experienced the development of much insight into the nature of his attitudes toward his mother.

During this period of reintegration he visited his therapist regularly, usually briefly. Sometimes his purpose was to discuss his progress consciously, sometimes to be hypnotized and given further therapy.

One of his last steps was to discover that he loved his wife and always had, but that he had not dared to know it because he was so convinced in his unconscious that any man who hated his mother so intensely without knowing it should not be allowed to love another woman. This, he now declared, was utterly unreasonable.

The final step was postponed for approximately six months and was achieved in the following manner.

Walking down the street, he saw a stranger swearing fluently at a receding car that had splashed water on him. He felt unaccountably impelled to ask the stranger why he was swearing in such a futile fashion. The reply received, as reported by the patient, was, "Oh, it don't do no good, but it makes me feel better, and besides, it wasn't the driver's fault, and my swearing won't hurt him."

The patient related that he became obsessed with this incident for several days before he realized that it constituted an answer to the numerous delays in the execution of many half-formulated plans to stage a quarrel with his mother and "have it out with her." He explained further that an actual quarrel was unnecessary, that a full recognition of his unpleasant emotional attitudes toward his mother, with no denial or repression of them, and in the manner of the man in the street, would permit a true determination of his actual feelings toward his mother. This was the course he followed successfully. By following the example set by the stranger, he successfully established good relationships with his mother.

The remarkable parallelism between this final step and the hypnotic procedure of having him project his experiential life upon hallucinatory figures is at once apparent. It illustrates again the value of the hypnotic utilization of the dynamics of everyday behavior.

## **COMMENTS**

In presenting this case material, the purpose has not been to give an understanding of the dynamics involved in the patient's illness nor of the varied nature of his maladjustments. Rather, the purpose of the entire paper is that of demonstrating the values of hypnotic psychotherapy, methods of application, and techniques of utilization. A most important consideration in hypnotherapy lies in the intentional utilization, for corrective purposes, of the mental mechanisms or dynamics of human behavior.

Repressions need not necessarily be broken down by sustained effort. Frequently their maintenance is essential for therapeutic progress. The assumption that the unconscious must be made conscious as rapidly as possible often leads merely to the disorderly mingling of confused, unconscious understandings with conscious confusions and, therefore, a retardation of therapeutic progress.

The dissociation of intellectual content from emotional significances often facilitates an understanding of the meaningfulness of both. Hypnosis permits such dissociation when needed, as well as a correction of it.

Projection, rather than being corrected, can be utilized as a therapeutic activity, as has been illustrated above. Similarly, resistances constituting a part of the problem can be utilized by enhancing them and thereby permitting the patient to discover, under guidance, new ways of behavior favorable to recovery. The tendency to fantasy at the expense of action can be employed through hypnosis to create a need for action.

## **SUMMARY**

In brief, there are three highly important considerations in hypnotic psychotherapy that lend themselves to effective therapeutic results. One is the ease and readiness with which the dynamics and forms of the patient's maladjustments can be utilized effectively to achieve the desired therapy.

Second is the unique opportunity that hypnosis offers to work either separately and independently, or, jointly with different aspects of the personality, and thus to establish various nuclei of integration.

Equally important is the value of hypnosis in enabling the patient to re-create and to vivify past experiences free from present conscious influences, and undistorted by his maladjustment, thereby permitting the development of good understandings which lead to therapeutic results.

# Hypnosis in General Practice

Milton H Erickson

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Hypnosis can help you in treating almost any patient. Divested of the mystery which it holds for the uninitiated, this long-known psychological phenomenon has a definite place in general medical practice.

As every doctor knows, it is not enough to prescribe and advise correctly—the patient himself must put the recommended regime into action. Whether he does or not will depend on many things, among them his understanding of himself, his illness and the required treatment, plus the degree of rapport he has with his physician. Here's where hypnosis can be a valuable therapeutic aid.

In a hypnotic state the patient gains a more acute awareness of his needs and capabilities. He is freed from mistaken beliefs, false assumptions, self-doubts and fears which might otherwise stand in the way of needed medical care. Whether he really is sick or just believes that he is (which, by the way, can be equally damaging), the new insights he gets through hypnosis improve his attitude toward his condition. Rapid development of a sound relationship with the doctor is also facilitated, since trust and confidence in others is based, to a large extent, on a real understanding of one's self.

## ***HYPNOTIC RESPONSIVENESS STIMULATES COOPERATION***

Another significant change occurs while the patient is hypnotized. He becomes much more responsive to ideas and is able to accept suggestions and to act upon them more readily than in his ordinary state of awareness. The patient's increased responsiveness under hypnosis helps the doctor to secure the kind of cooperation that is essential to successful medical treatment.

To repeat: all patients who come to you seeking the help, the inspiration, and the motivation they need to recover and maintain recovery can benefit from hypnosis. There is the obstetrical patient who is entitled to the easiest possible delivery and the allaying of her anxiety; the surgical patient who fears a needed operation; the dermatological or allergic patient who cannot stand the itching of his skin; the rheumatoid arthritic patient who progressively handicaps and limits himself, the patient with minor illness who invalids himself completely; the obese patient who "tries" but does not cooperate; the patients with unhealthy habits ranging from thumb-sucking to alcoholism. I could go on indefinitely, but I think I can better make my point by citing two case histories which illustrate widely different applications for hypnosis in general practice.

## **HYPNOSIS AIDS DIAGNOSIS**

The first case concerns a middle-aged nurse who had an extremely domineering personality. She had been referred to me by another physician to whom she had complained of fatigability, insomnia, weakness, and vague gastric pains. She had accepted referral somewhat reluctantly and by the time she appeared in my office had already diagnosed her problem herself as "globus hystericus." She demanded that hypnosis be used as a therapeutic approach and only grudgingly consented to give her case history. From her description of her physical complaints it appeared to me that her self-diagnosed ailment was in reality a symptom displacement. I offered the suggestion that she might have a peptic ulcer and that she go to see an internist. This she flatly refused to do unless I employed hypnosis on her. In a light trance, she was persuaded to have an X-ray, and the report disclosed that she did, in fact, have a peptic ulcer. She told me that she had been given a wealth of medical advice and prescriptions, all of which, she announced, she intended to reject.

Another somewhat deeper trance was induced in which she was given a whole series of suggestions to the effect that she could dominate the entire situation (which was important to her) by taking control of therapy herself. I told her she could do this by utilizing fully and cooperatively all advice and instructions given her, by assuming a comfortable and happier attitude toward her situation and by realizing that such an attitude would free her of tensions. She was further advised that she had no real need for her presenting complaint of "globus" and that she could dismiss it now that she had radiographic confirmation of her true condition. A month later she went to the internist for a reexamination and was delighted with his announcement that she was symptom-free, with no X-ray evidence of an ulcer.

She returned to me twice more for trance induction, to be continued in her "own handling of her physical problems," as she put it.

## **HYPNOSIS "KILLS" PAIN**

Another middle-aged woman came under my care for quite a different reason. This patient was suffering from metastatic carcinoma of the lung and was experiencing continuous, excruciating pain which required constant sedation with narcotics. She was well aware of the fact that she had only a few weeks to live and bitterly resented the comatose state induced by the narcotic medication.

Her husband sought my help in the hope that a hypnotic anesthesia could be induced which would free his wife of both the pain and the narcotic so that she could spend her remaining days with her family.

The woman willingly endured pain for some 12 hours to rid herself of the effects of the narcotics so that I might hypnotize her. Because of her tremendous motivation, it was possible to induce in her a profound trance state. A deep hypnotic anesthesia was achieved and she was given posthypnotic suggestions to the effect that each day this would be renewed and strengthened. As a result, she was released from the narcotic-

induced comatose state and enjoyed five weeks of contact with her family before she expired. During this time she experienced no more than a slight dull ache and feeling of heaviness in her chest.

## WHERE CAN YOU LEARN HYPNOSIS?

Assuming that what I've said has convinced you that hypnosis has a place in your practice, you will want to know where you can learn it.

A few universities, scattered around the country, teach formal courses in hypnosis. But for the most part you will have to get your training from people who are experienced in hypnosis and willing to teach it. Such training is best accomplished in situations where more than one person's knowledge and experience is presented, since every patient poses problems that need understanding from more than one point of view.

Preferably, hypnosis should be taught under multidisciplinary auspices as it is by an independent group in Chicago, which includes psychiatrists, obstetricians, general practitioners, dentists, and psychologists. I look forward, however, to the time when more professional schools will offer courses in hypnosis in a concentrated form that does not take doctors away from their practice for too long.

For as the age-old attitude of superstitious awe, fear, incredulity, and antagonism toward hypnosis is replaced by an appreciation of its scientific values, it will become an even more important therapeutic aid and a valuable tool in practicing the art of medicine.

# Hypnosis: Its Renascence as a Treatment Modality

Milton H. Erickson

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## **INTRODUCTION**

### **Hypnosis Is as Old as Medicine and Almost as Old as Man**

Civilizations now belonging to the ancient past reveal that the primitive use of hypnosis was incorporated into the healing arts of the earliest civilizations. These civilizations arose, flourished, and fell, only to be buried under the ruins of newer civilizations that succeeded one another in man's march out of the past. As man continued to think, to behave, to desire, so did he continue to use the art of hypnosis. Throughout history there has been an ever-continuing need to cast the magic spell, to bring healing sleep to the sick, and inner peace to the wounded.

Down through the ages priests and priestesses rendered their services to the ailing and troubled in Temples of Sleep, built upon the ruins of other Temples of Sleep belonging to previous civilizations. The Chinese, Hindus, Greeks, and Egyptians all had temples where suggestion and hypnosis were administered to lessen hurt and suffering.

Undoubtedly, there are ancient civilizations yet-to-be-discovered that used hypnosis expressed in magical sleep, rites, and incantations. For men forever remain men with needs in common.

A rebirth of medical interest in hypnosis, although short-lived, began following World War I. The Germans in World War I exhausted their supply of chemical anesthetics and used hypnosis as an anesthetic agent. After the war, particularly in England, hypnosis was used as a calming and re-educative influence in what was then called "shell shock." By the 1930s a new type of study of hypnosis was evolving. This was the use of hypnosis as a means of investigating psychological and physiological behavior. This was done first by the author, who was then one of Clark L. Hull's students. Subsequently, Hull became seriously interested in hypnosis and proceeded to demonstrate that hypnosis could be subjected to laboratory examination and study just as can other forms of human behavior. Publications originating first in his laboratory, then elsewhere, disclosed that hypnosis could be evaluated by measurable changes brought about in the physiology of the person on whom it was employed, and that by inducing changes in the person's behavior, there could be an investigation of the various forces and experiences that constitute the foundation of personality.

During World War II physicians and psychologists who had learned something about hypnosis found that it could be used not only as an anesthetic, as the Germans had shown in World War I, but to investigate the particular experiences that resulted in "combat fatigue." Further, it could be employed to reeducate the patient to a better understanding of his actual capabilities and potentialities in meeting the stresses of war. Thus, many battle casualties were salvaged. When World War II ended, many of the men from the psychological, medical, and dental fields, returning to civilian life, realized that there should be much more extensive teaching of hypnosis.

Enterprising men from the professions of medicine, dentistry, and psychology organized teaching teams and traveled throughout the country conducting seminars on hypnosis. These teams included people well-founded in psychosomatic medicine, general medicine, psychiatry, obstetrics, surgery, psychology, and dentistry. They lectured before medical societies, psychological groups, or other organizations. Properly, the qualifications for admission to these seminars was the possession of a proper academic degree. Very slowly, scientific interest continued to grow. The result was that here and there a psychology department, a physiological department, or a dental school permitted investigative work by means of hypnosis.

In 1949 the Society of Clinical and Experimental Hypnosis was organized by a small group of scientifically trained men in New York City. The organization promoted the development of hypnosis and founded a journal in that field.... In 1957 came the founding of the American Society of Clinical Hypnosis.... which affiliated with, and stimulated the growth of numerous comparable societies throughout the world. It also aroused the interest of qualified individuals interested in hypnosis. Thus, there arose a progressive and compelling interest in hypnosis as a valuable modality in the healing arts and in the field of psychological investigation of human behavior. Iatrogenic well-being rather than iatrogenic illness became a new center of interest.

Little is really known of the actual potentials of human functioning. Hypnosis offered for scientific exploration a different field of conscious awareness, an unexplored approach to puzzling medical problems, a new awareness that scientific studies could be approached in a different way. In brief, a new field of scientific investigation had been opened.

Hypnosis, as an adjunct to the practice of medicine, has opened new fields of exploration in the study of human behavior and is changing the concepts of psychological and physiological potentialities. That it will be productive is unquestionable. But how productive, and in what way, no one can yet say.

## ***HYPNOSIS BY DEFINITION***

### **A Special State of Conscious Awareness**

Today there are still those who think of hypnosis as a healing sleep, a magical force, a kind of demoniacal power, as has been thought for thousands of years.

But what is hypnosis as we understand it scientifically today? It is certainly not physiological sleep, even though it may seem to resemble it and may even be used to produce physiological sleep. It is not some special power or magic, nor is it some barbaric force arising from evil sources. It is, in simple terms, nothing more than a special state of conscious awareness in which certain chosen behavior of everyday life is manifested in a direct manner, usually with the aid of another person. But it is possible to be self-induced. Hypnosis is a special but normal type of behavior, encountered when attention and the thinking processes are directed to the body of experiential learnings acquired from, or achieved in, the experiences of living.

In the special state of awareness called hypnosis the various forms of behavior of everyday life may be found—differing in relationships and degrees, but always within normal limits. There can be achieved no transcendence of abilities, no implantations of new abilities, but only the potentiation of the expression of abilities which may have gone unrecognized or not fully recognized.

Hypnosis cannot create new abilities within a person, but it can assist in a greater and better utilization of abilities already possessed, even if these abilities were not previously recognized.

### **Using Hypnosis in Medical Practice**

The rationale for the use of hypnosis in the healing arts is the beneficial effect of restriction of the patient's attention to those items of behavior and function pertinent to his well-being.

To clarify by an example, lay a wooden plank 25 feet long and 20 inches across on the level ground. Anybody in a state of ordinary, conscious awareness can walk that 25 feet easily. But place that same plank at an elevation of 200 feet in the air and the problem of walking its length becomes greatly changed for the person, even though the actual task is unchanged. In the ordinary state of conscious awareness performance is too often limited by considerations which may actually be unrelated to the task. Walking that wooden plank with transparent flooring on both sides, but the ground plainly visible 200 feet below, would still remain a nerve-racking task for many persons who could do it easily on the ground. Ideas, understandings, beliefs, wishes, hopes, and fears can all impinge easily upon a performance in the state of ordinary, conscious awareness-disrupting and distorting even those goals which may have been singly desired. But in a state of hypnosis the field of conscious awareness is limited and tends to be restricted to exactly pertinent matters, other considerations being irrelevant. To cite another illustration, a badly burned patient is in desperation for pain relief. He does not want to be presented with ideas and suggestions about his pain. He is not interested in taking fluids and food. He has no appetite as a result of his suffering. He cannot sleep because of pain, fear, and anxiety about the outcome of his condition.

Under hypnosis, by contrast, the badly burned patient is open to suggestion. He is as ready to accept suggestions of hypnotic anesthesia and analgesia as he would be to accept

morphine. He is also ready to accept suggestions of thirst and hunger and to respond readily to them, something that would be impeded by drug administration, as would likewise the elimination of toxins be retarded by medication for pain. Further, he enjoys natural, physiological sleep rather than a narcotic sleep.

Even if hypnosis fails to bring full relief, the symptomatology can be greatly reduced, thus lessening the amount of medication that can interfere with toxin elimination.

In the writer's own experience the shock response of a seven-year-old child to severe scalding of one arm, her shoulder, chest, and side, was utilized in inducing a hypnotic trance. Local dressing of the burned areas, but no general medication, resulted in full recovery within three weeks. Further hypnosis after the initial session was not required, since the original posthypnotic suggestions continued to remain effective throughout the hospitalization.

In another instance, which took place some years ago, a male patient in his early twenties, who had been committed to the mental hospital three years previously, was diagnosed as suffering from catatonic schizophrenia. His clinical course in the hospital came to be almost completely predictable. There would be a week during which he would show rising tension and anxiety, and always within eight days he would reach a peak of highly disturbed violent behavior, requiring either physical restraint or seclusion, and during which time no interpersonal contact could be made. This period would last four to six weeks. There could then be a six- to eight-day period during which his disturbed behavior would subside, and always within eight days he reached a state of passive, inaccessible behavior, but was unable to give any clear account of the reasons for, or the nature of, his disturbed behavior. This state of behavior would then continue for seven to nine weeks, whereupon the disturbed cycle would begin again.

During one period of remission approximately 25 hours were spent in training this patient to be a somnambulistic hypnotic subject, the purpose being purely experimental and investigative. He was given special posthypnotic suggestions to which he was "always to respond."

At the beginning of the third week of the next disturbed period following his hypnotic training, the patient was still in full physical restraint and, so far as could be determined, was still completely inaccessible by ordinary methods, requiring tube feeding and being completely incontinent. The patient was approached, his wrist was grasped gently, and he was addressed by the name of "John," an agreed-upon name assigned to him during previous hypnotic trances and to be used only in the trance condition. After he had been called by the name "John" three times at five-second intervals, each time his wrist being gently squeezed, he appeared to recognize the writer and asked what was wanted. Then he almost immediately seemed to become aware of his restraints and asked what had happened. He was told simply that it was desirable to have him talk to the medical students—a procedure of much previous experience during remission states. "John" stated that he was not feeling well, that he was full of "awful feelings" and fears and anxiety, and he expressed doubt that he could talk to the students. He also asked why he

was called "John" instead of his real name Frank. This signified that he was not in a hypnotic trance, a development not anticipated, since it was hoped and expected that he would "come out" of his disturbed state into a trance state. Nevertheless, with much urging he was persuaded to take a shower, to dress, and to talk to the students. He was told that he was free to ask to be put back into restraint if he found his emotional distress becoming too much for him. Hesitantly, he agreed.

After two hours with the students, Frank stated that he was "getting sick" and asked to be put in restraint as rapidly as possible. He even assisted in an anxious, hurried manner in the securing of the restraints. When this was completely accomplished, he was so informed. Immediately he renewed his previous disturbed behavior of screaming, shouting, and struggling violently, again completely inaccessible.

The next week, the fourth week in his disturbed cycle, the same procedure was followed and similar contact was obtained.

By the fifth week it was recognized that he was in a state of beginning remission, which was achieved within a week's time. It was not considered desirable to intrude upon this spontaneous abatement of his symptoms.

During the succeeding eight-week period of remission he was used repeatedly to demonstrate hypnotic trances, and he was still a most competent subject. Unfortunately, the most intensive questioning could secure no information regarding his disturbed period experiences. He did not even seem to understand that he had had a disturbed period, but he knew that a period of time, for which he could not account, had elapsed.

During the next period of disturbed behavior it was learned that he could again be approached by the previously established posthypnotic cues of a gentle grasping of his wrist and calling him by the name of "John" three times. This could be done at intervals of four or more days. There were two failures when such an attempt was made on the third day after a successful approach. Hence, all approaches thereafter were never more frequent than four days apart.

None of the other psychiatrists was willing to follow the writer's example. Several medical students succeeded easily, but this was not a fair test since I was present. But in general the use of hypnosis as an easy approach to a disturbed psychotic patient, unapproachable by any other method, was frowned upon and discouraged, and only my rank on the professional staff made it possible for me to perform these "unorthodox" experiments.

Encouraged by this experience with Frank, I attempted a similar procedure in six other schizophrenic patients, both catatonics and hebephrenics. Similar results were obtained with these patients, three of them recovering sufficiently to be sent home. All returned to the hospital within three years' time, acutely disturbed in behavior. Nevertheless, each responded again to the posthypnotic cues given them in their previous hospitalization and shortly left the hospital.

Hypnosis was also employed successfully with three violently excited manic-depressive patients who showed brief remissions sufficiently long to permit hypnotic training. With them, as with the schizophrenic patients, extremely violent, excited episodes of disturbed behavior could be briefly interrupted for two to four hours before it would be necessary to restore the restraints or to return them to the seclusion rooms.

In the writer's experience this manner of dealing with disturbed psychotic behavior could be accomplished only by hypnosis. Even though the percentage of successes was much lower than the percentage of failures, the elicitation of reasonable normal behavior by hypnosis from acutely disturbed psychotic patients indicates, in a limited way, the remarkable effectiveness of this "special state of conscious awareness." It also indicates an important area warranting continuing research and investigation.

The problem yet remaining is to ensure that the members of the medical profession fully realize that the thinking, the emotions, and the past experiential learnings of each person play a significant role in his psychological and physiological functionings.

### ***HYPNOSIS IN MEDICAL PRACTICE: THREE CASE HISTORIES***

The following case histories illustrate how the potentials within a person can restore well-being. Hypnosis isolates the person from his immediate conscious surroundings—and so directs attention within one's self and to one's own actual potentialities. This is as important as the conventional scientific laboratory, because it is the laboratory that exists within the person.

#### **Edward C.**

Edward was one of two children. His sister was six years his senior. His father was employed in an industrial plant. Upon graduating from high school Edward secured employment in the same plant. He was quiet, thoughtful, had few friends and these were merely casual. He had no interest in girls, although he had taken two or three to a movie (but never the same girl twice). He was neither friendly nor unfriendly. One day while at work he suddenly became violently disturbed. He had to be subdued by his fellow workers until the police came to put him in handcuffs and leg irons and take him to the psychopathic ward of a city hospital. From there he was committed to the mental hospital. The psychiatric staff made a diagnosis of schizophrenia, catatonic type.

On the ward Edward sat quietly in a chair. He would listen attentively when spoken to, but would never reply. However, about three times every 24 hours he became violently disturbed. He would rush wildly through the dormitory, crawling under and over beds, around beds, shoving them away from the wall. The disturbances would last from 10 to 20 minutes, whereupon, covered with perspiration, he would return to his chair or, at night, to his bed. There was never a word of explanation received from Edward about these episodes. More than a dozen physicians endeavored repeatedly to interview the

patient or to elicit some verbal response from him. Each interview was a failure—and this had been going on for three years.

Finally this writer decided to use hypnosis. I employed a technique of relaxation, with suggestions of tiredness, fatigue, sleep, and attentiveness to what was said. Within the course of 20 minutes Edward gave every evidence, physically, of being in a hypnotic trance. He showed catalepsy, would nod his head affirmatively or shake it negatively when asked various questions. It was soon determined that he would like to tell about his difficulties, but did not know how. This information was obtained by laborious questioning, answered by head movements. I explained that I was going to help him, and that this help would consist of having him sit quietly in a chair and have a dream. (A dream could be acceptable, since it was an inner experience, and direct communication is not.) This dream might occur during the coming night, but it was explained that I would like to have it occur within the next hour if that were agreeable. Edward nodded affirmatively. He was told that he was to dream informatively about his problem, about the reason why he was in a mental hospital. It was suggested that he relate the content of this dream after it occurred. He was asked to think this over for a half-hour while still in a hypnotic trance. I explained that I would return to him and ask him if he would dream that informative dream within the hour after I returned. Edward nodded his head to express his agreement. He was then left sitting in his chair in a trance. Half an hour later I returned and asked Edward if he were willing to have his dream within the next hour, and after the dream to relate it verbally. Edward nodded his head affirmatively. I took a comfortable seat near the patient and waited for 15 minutes to pass, the time Edward had said it would take before he would have his dream. Almost exactly 15 minutes passed when Edward suddenly became extremely tense and began to perspire freely. His muscles quivered. He clenched his jaws. These movements persisted for about 20 minutes. Then Edward relaxed and sighed deeply. I asked him, "Are you through dreaming?" He replied, "Yes, it was awful, just awful."

I asked him to narrate the dream fully, if he could. He nodded his head affirmatively and also stated, "I can, but take me by the hand because I will get awful scared." Edward related his dream. He imagined himself being suddenly thrown into complete darkness and being seized by a terrible force. "It drags me, it yanks me, it pulls me, it twists me, it turns me. It hauls me through great piles of barbed wire, through heaps of stabbing knives. It jerks me first one way and then another. It pulls me up and it pulls me down, and all the time I am being stabbed. I can't see anything. I just feel awful pain. It goes on and on and on. And I am so scared."

I asked if there was anything I could do to comfort him. Edward replied that nobody could help him, that nothing could help him, that all he could do was sit and wait. I then asked him to sit quietly and comfortably, to rest for two or three hours, and to let nothing happen to him. During that period he was told to awaken and to go to lunch as usual. Later that same day Edward was approached again. He was silent, but looked attentively at me—his first real effort in three years to respond to a psychiatrist. I asked if he were willing to let me hypnotize him again. Edward nodded and reached out his hand. I took a careful grasp of his hand and induced a trance within a few minutes. As soon as catalepsy

indicated that Edward was in a hypnotic state, I asked if he were asleep. He answered, "I am sound asleep, I am resting comfortably, I am all alone except for your voice. I like it this way." Edward was then asked, "Are you willing to have another dream?"

He answered, "No." I persisted, "I would like you to have another dream because I think I can help you by your having this dream again." Edward answered, "If it will help, I'll try." Sick people do want to try—usually they don't know how. Edward was asked to listen most attentively, slowly and laboriously. He was told that he was to dream that same dream that he had dreamed previously. He shook his head and said, "No! No!" I continued, "I want a different setting, a different set of conditions. I want it to be the same dream with a totally different set of characters, because you can call those barbed wire heaps and the thorn bushes and the heaps of stabbing knives 'characters.' This time I want it to be the same dream with the same emotions, but with a different cast of characters. Will you do this for me, Edward, knowing that it really is for you?"

After some minutes of thought Edward asked how soon to start. I asked, "After five minutes will it be all right to begin the dream?" There was a slow, reluctant "Yes." The minutes were counted—one, two, three, four—and about 50 seconds later Edward tightened his fingers on my hand very forcibly and showed the previous behavior—tense, quivering muscles, diffuse perspiration, and shuddering of his body. Again, this lasted about 20 minutes. Then Edward suddenly relaxed and sank weakly in his chair. He stated in reply to a question, "It is all over now. It was the same dream. Hold my hand carefully. I will tell you, but don't make me dream it again."

Edward began to tell his dream. A sudden terrible darkness had enveloped him, and the same awful power seized him. But this time it dragged him and yanked him and pulled him and twisted him and turned him and shoved him down a never-ending canyon. All the way there were earth slides and great boulders fell on him or knocked him hither and yon. He bumped from one side of the canyon to the other, and dirt filled his eyes and mouth, and great stones fell on his legs. Sometimes he was hauled up over a landslide only to be covered by a second landslide. And so on, and so on. Edward concluded his description, "It was just the same as the other dream except it was a canyon. That is all there is to it. Now let me rest." I thanked him and waked him. Again he sat there—silent and attentive, but unresponsive. He would neither nod nor shake his head. I saw Edward on the next day. He responded only by averting his face. The following day he was again approached. Again he turned away. This continued for a week. It was also noted that the nurses' records disclosed that Edward had not been having his periodic disturbed episodes. Then, 12 days later, Edward had his usual disturbed episode. When I approached him that afternoon, Edward did not turn his face away, but made no response to questions until he was asked if he were willing to go into a hypnotic trance. To this he nodded yes. The hypnotic state was induced in a couple of minutes. I asked, "Did those dreams help you?"

Edward said, "Yes. Those dreams are what happened on the ward, in the dormitory. They are just the same." I asked, "Would you like to have another such dream?" He replied, "No," reluctantly. I told him that his negative answer was not emphatic. It almost seemed

as if he wanted to say yes. He was asked to explain. He said, "Those dreams are awful, just awful. What happens on the ward is just awful. But after those first two dreams, nothing happened again. I know it will, but I don't want it." I asked, "Since those first two dreams were helpful, maybe another dream would give you a few days' relief. Are you willing to try?" Fearfully, hesitantly, he finally said yes.

Again I explained to him, "I want you to have the same dream again, but with a different cast of characters. Not barbed wires or stabbing knives or huge boulders such as you had before. I want it to be the same dream with a different cast of characters. Will it be all right to start the dream in five minutes? I will hold your hand carefully." Edward said weakly, "Yes." This time I was very careful in taking hold of Edward's fingers because I had experienced the forcefulness of his grip. About five minutes later he showed the behavior previously manifested. Again it lasted about 20 minutes. As he finally relaxed, breathing heavily, I asked him, "Can you tell me about the dream?" He said, "Yes." "All right, tell me now." Edward related a dream of being in "a jalopy" that was filled with broken glass. It was a big jalopy, and there were four people in it. He was one of the four. The others didn't get hurt as the jalopy went down a mountain road with hairpin turns. It was falling down the mountainside, always landing on the road below. It was going at frightful speeds. He couldn't see the people. He just knew they were awful people, and all that glass around him. It filled up that whole jalopy. He was in the glass on the seat. None of the glass touched the others, but each time the jalopy jumped, the glass hit him. It went on and on and on until, all of a sudden, the darkness stopped and the dream ended. I thanked Edward quietly, told him to awaken and feel as rested as he could. He awakened, but as usual he did not speak. When spoken to, he merely looked attentive. He was obviously fatigued, and his shirt was soaked with perspiration. There were no disturbed episodes for the next six days. On the seventh day Edward moved his chair up to the door which I customarily used to enter the ward. As I opened the door, Edward reached up with his hand, took my hand, and pulled me down into the chair beside him. I asked, "Do you want something, Edward?" Slowly he nodded yes. I asked, "Do you want to go into a trance?" After some moments he said softly, "Yes." Thus, for the first time in over three years, he had voluntarily asked for help—thanks to hypnosis.

Excitedly, I hypnotized him again. The trance state developed very rapidly, and I asked Edward to "explain." In essence his explanation was, "Those dreams are all the same. Just something different, but they mean the same. They scare me. They hurt me. They are awful. But when you make me have the dreams, I don't have to have the dreams on the ward. But today I am going to—and I don't want to. So maybe you had better have me dream." (Development of first real insight.) Again, the laborious explanation was given. "Dream the same dream with the same meaning, the same emotional significance, but with a different cast of characters. This time maybe it won't be so dark. Maybe you can see a bit more clearly. It won't be pleasant, but maybe it won't hurt so much. So go ahead as soon as you can and have your dream." Within four minutes the dream developed; 20 minutes later, streaming with perspiration, Edward said, "It was the same dream. It was bad. It was awful bad. But it didn't hurt so much. I was walking through a forest. The sky got blacker and blacker until I couldn't see anything. Then the wind began blowing. I could hear the crashing of the lightning, but I couldn't see it. There was thunder. The

wind would pick me up and throw me against the trees. I went crashing against the forest, on and on for miles. Just as the dream ended, I thought I saw a house. But I am not sure." (Beginning of identification.)

Edward was asked when he thought he would have the next dream. He replied, "Not this week. Maybe next week." I asked if he would let me know. He answered, "Every day walk past me. When I want the dream, I will take your hand." (Three long years and now trust in another person!) Edward was asked to relax, to feel as comfortable as possible, and then to awaken. Upon arousing from the trance state, Edward was asked if he would like to talk. He nodded affirmatively. When I repeated the question, he shook his head no. For the next 10 days I dutifully walked past Edward. It was not until the 11th day that he reached up and took my hand as before. The nurse's note showed that Edward had had no disturbed episodes. As I sat down on the chair beside him, Edward did not wait, but developed a trance immediately. I asked if he thought he was going to have a disturbed episode. He said, "Yes, one is coming soon. I want you to help me."

Again he was asked to dream the same dream, but to dream it with less pain, less discomfort, and to dream more clearly—to see the characters more plainly. His fingers tightened on my hand, and the dream developed immediately. The observed behavior was essentially the same. The duration was again about 20 minutes. His recovery from the dream was a bit more difficult. There was much shuddering, much gasping for breath. He fended me off with his hands. He was asked to explain. He said, "I was walking along a strange street. It was very shady. The sun wasn't very bright. I came to a hideous house. I knew I didn't want to go in, but something awful hit me on the back and knocked me inside. It was an awful room. Then something that looked like a woman hit me with something that looked like a great big broom. Then something that looked like a man seemed to jump on me. Then another woman kept hitting me with a red hot iron. I tried to get away. I ran from one room to another, but they always followed me. I couldn't get away. Finally I came to the last room. I couldn't see who these people were. They were huge; they were monsters. All of a sudden the sun shone and I was out in the street. Then I was here in the chair beside you." I asked, "Is there anything more you can tell me?" His answer was no. "But I know there is something awful dreadful that is coming up in my mind. I am awfully afraid. Will you come every day and speak to me?" I told him I would. Each day Edward met me at the door to the ward and walked with me on rounds. Questions I asked him were answered only by a nod or a shake of the head. There was no verbalization. On the fourth day Edward took me by the hand and led me to a chair. For the first time he spoke, saying loudly, "I want help right away! Now!" (After three years of inaccessibility, Edward, through hypnosis, could volunteer communication.) A spontaneous trance developed immediately. I told him again to dream the same dream with the same cast of characters, but this time to make the dream "nearer," "clearer," "more understandable, but not too understandable." It was explained to him that he was not to understand the importance of the dream, but only that the characters were to be clearer.

The usual dream sequence ensued. There was much less physical agony manifested. The perspiration was markedly decreased. Edward related his dream as follows: "Out of

somewhere, I don't know where, I was yanked into what seemed to be a hospital. There was a huge, awful, towering nurse, who was in charge. I was thrown into a bathtub. I was washed. They used steel brushes. They yanked me out. They dried me with towels made of ropes with knots in them. I was jerked here and there. Then another nurse, not as big as the first one, grabbed me by the hair and waved me around in the air and banged me on the floor, knocking me against the beds. Then she threw me in a great big bed right between two awful people. One of them seemed to be a woman. She was covered all over with awful sores, like cancers. She didn't seem to have any clothes on. Her teeth were awful. Her eyes were awful. Her fingers were claws. I tried to get away from her. The only way I could move was toward another person, who seemed to be a man. There were many terrible things about him. I don't know how terrible. I was afraid to look. They kept knocking me on the head to make me look. The man kept yelling at me. I couldn't get out of bed. I tried to explain it wasn't my fault. This went on and on. All of a sudden it ended. I was sitting beside you."

I asked if he wanted to remember this dream when awake. Edward said, "No, I just can't, I can't. Don't make me." I asked him when he thought he should have the next dream. In reply he asked, "Will the next dream tell me? But I am afraid to know." "If you want to," I answered. "Think it over for three or four days. Don't rush. Don't hurry. You and I can handle it. Really handle it." I asked him if he were ready to awaken. He answered, "Yes, but say something when I am awake, something nice." He aroused readily upon suggestion and said, "It seems to me that you are going to say something, but I don't know what." I replied very cautiously, "Do you know, Edward, you have come a long way. You are almost ready to be well. You are almost ready not to be afraid. You are almost ready to know something." Edward answered, "I don't know what you are talking about." He was assured that all was well.

Three days later Edward was found pacing the ward restlessly, with much tension. He seemed relieved at seeing me. As I approached, he said, "I think you had better do something for me today. I am awfully afraid, but I think you can do something for me. Something that has got to be done. I think I am ready." I led him to a quiet end of the ward and seated him. Immediately he developed a deep trance and spontaneously stated, "I think I am ready." I told him, "Well, since you think you are ready, have the same dream with the same cast of characters. But let them have a meaning that you can recognize, that you can accept, that won't scare you. I'll be here. If things get too bad, I can stop everything. I want everything to go ahead. But I'll stop things if you need them stopped." Instantly Edward stated, "All right. I am beginning a dream. I am beginning a dream. I am in the hospital. It is this hospital. There is a nurse. She is the head nurse. She looks awful mean. There is a patient. He looks like my father. He is the one in the corner bed on the west side. He looks like my father. The first time I saw him, I wanted to kill him. I wanted to kill the nurse. There is another nurse. She is nasty, too. She looks like my sister. They are taking care of a patient. That awful, great big patient. The head nurse and the other nurse are taking care of a patient. He is kicking. He is trying to get away. They are holding him tight. They put him in bed. They tell him to stay there. That patient is awful afraid. That's funny. That patient is me. I look awful scared. That big patient looks just like my father. The head nurse looks just like my sister. I know what it is all

about. I can tell you now. But I wish you would wake my up and let me tell you, because I will be able to listen when I tell you. Wake me up now, right now."

He was awakened. He was tremulous. There was a rush of words. "It is this way, Doctor. My father and mother and sister came from a foreign country. Everybody respected my father there. Everybody respected my mother, my sister. They were big shots. They came here to America. Then it all happened. Everybody made him a dumb foreigner. That is all he was—a dumb foreigner. I was born here and learned to speak English. Everybody made fun of my father. They laughed at my mother. They laughed at my sister. They even laughed when I spoke. Then my family would get mad at me and beat me up. They took it all out on me. That is why I never had any friends. They would call me 'that dumb foreign kid.' But I wasn't dumb. I couldn't have friends. I went to grade school, and they all called me the dumb foreigner. I studied hard, but I couldn't be friends. Every day my father would get drunk. He worked in a factory. Sometimes he wouldn't work. We were on welfare. Then he got a job, and I went to high school. It didn't do me any good. Every time I came home they'd drag me all around calling me a dumb immigrant. They talked about me. They made fun of me. They said I thought I was smart because I could talk English. They yelled and they screamed at me. My father would knock me down. My mother would hit me with anything. My sister was a big woman. She yelled and screamed that she couldn't get married. Every day it went on. I kept studying by myself. Then, when I got through high school, I went to get a job. When I gave my name, they said I was foreign, just like my father. Nothing I could do changed it. I got shoved around at the factory where I worked. I wanted to make friends. I wanted a girl. But everybody knew my name. I was a dumb foreigner. Things kept getting blacker and blacker. Then, all of a sudden, they got awful black. That is what my first dream was about. I was dragged through everything—every insult, every hurt, everything mean, because I was born in America. I wasn't really a foreigner. I was an American. That was what all my dreams were about. That canyon. That's the immigrant section of the city. Why weren't former nationalities forgotten? All the old folks hate it. They don't like being dumb immigrants. Those people in that awful jalopy going down the mountain road. Once we took our secondhand car and drove out in the country. All the time my father was calling me a dumb foreign kid just born in America. My mother and sister were saying it, too. I thought the ride would never come to an end. They said it was a picnic. I got my mother mixed up with the head nurse. That patient was my father. For years I wanted to commit suicide. I have been afraid because I wanted to live. I couldn't stand being alive. I can keep on telling you all these things, Doctor, because you are the first one who I have ever told anything. Some way you made it possible to talk to you. I never could tell anybody. Now I want to talk to you all about this. I am an American. I don't care about what my mother does or what my sister does. I just want to be an American. I tried to be like them and I couldn't. I tried to be the way I wanted to be, and now I know. I can be me."

Within two months, after almost daily discussions of the matter, Edward decided to change his name. He secured his father's permission to shorten his name. He discussed his emotional reaction to his parents, to his sister. He felt sorry for them. He felt helpless so far as they were concerned, but he knew he could help himself.

The years have passed. Edward never needed to return to a mental hospital. He made a good adjustment. He married an American girl of similar foreign extraction. He feels sorry for his father who drank himself to death, for his mother who died eventually of cancer, for his sister who despairingly committed suicide. Edward regrets all this. He is proud of his children. Through hypnosis Edward learned the thing so vital in human living—how to communicate.

### **Ann R.**

Ann, 21, entered the office hesitantly, fearfully. She had been hesitant and fearful over the telephone. She expressed an absolute certainty over the telephone that I would not like to see her. Accordingly, she was urged to come. As she entered the office, she said, "I told you so. I will go now. My father is dead, my mother is dead, my sister is dead, and that is all that's left for me." She was urged to take a seat, and after some rapid thinking I realized that the only possible understanding this girl had of intercommunication was that of unkindness and brutality. Hence, brutality would be used to convince her of sincerity. Any other possible approach, any kindness, would be misinterpreted. She could not possibly believe courteous language. I realized that rapport would have to be established—and established very quickly. She would have to be convinced, beyond a doubt, that I understood and recognized her and her problem and was not afraid to speak openly, freely, unemotionally, but truthfully.

Her history was briefly taken. Then she was asked the two important questions. "How tall are you and how much do you weigh?" With a look of extreme emotional distress she answered, "I am 4 feet 10 inches. I weigh between 250 and 260 pounds. I am just a plain, fat slob. Nobody would ever look at me except with disgust."

This offered a suitable opening. She was told, "You haven't really told the truth. I am going to say this simply so that you will know about yourself and understand that I know about you. Then you will believe, really believe, what I have to say to you. You are not a plain, fat, disgusting slob. You are the fattest, homeliest, most disgustingly horrible bucket of lard I have ever seen, and it is appalling to have to look at you. You have gone through high school. You know some of the facts of life. Yet here you are, 4 feet 10 inches tall, weighing between 250 and 260 pounds. You have got the homeliest face I have ever seen. Your nose was just mashed onto your face. Your teeth are crooked. Your lower jaw doesn't fit your upper jaw. Your face is too damned spread out. Your forehead is too hideously low. Your hair is not even decently combed. And that dress you are wearing polka dots, millions and billions of them. You have no taste, even in clothes. Your feet slop over the edges of your shoes. To put it simply—you are a hideous mess. But you do need help. I think you know now that I won't hesitate to tell you the truth. You need to know the truth about yourself before you can ever learn the things necessary to help yourself. But I don't think you can take it. Why did you come to see me?"

She answered, "I thought maybe you could hypnotize me so I could lose some weight." I answered her with, "Maybe you can learn to go into a hypnotic trance. You are bright enough to graduate from high school. Maybe you are bright enough to learn how to go

into hypnosis. I would like to have you go into hypnosis. It's an opportunity to say a few more uncomplimentary things to you. Things I don't think you could possibly stand to hear when you are awake. But in the trance state you can listen to me. You can understand. You can do something. Not too darn much, because you are horribly handicapped. But I want you to do everything I tell you to do because the way you have gobbled up food to make yourself look like an overstuffed garbage pail indicates that you need to learn something so you won't be so offensive to the human eye. Now that you know that I can tell you the truth, just close your eyes and go deeply into a trance. Don't fool around about it, just as you don't fool around in making yourself a disgusting eyesore. Go into a completely deep, hypnotic trance. You will think nothing, see nothing, feel nothing, do nothing, hear nothing except my voice. You will understand what I say—and be glad that I am willing to talk to you. There is a lot of truth I want to tell you. You couldn't face it in the waking state. So sleep deeply in a deep hypnotic trance. Hear nothing except my voice, see nothing, think nothing except what I tell you to do. Just be a helpless automaton. Now, are you doing that? Nod your head yes and do exactly as I tell you, because you know I'll tell you the truth. The first thing I am going to do is to get you—rather order you—to tell me certain facts about yourself. You can talk even though you are in a deep trance. Answer each question simply but informatively."

"What is important about your father?" Her answer was, "He hated me. He was a drunk. We lived on welfare. He used to kick me around. That's all I ever remember about my father. Drunk, slapping me, kicking me, hating me."

"And your mother?" "She was the same, but she died first. She hated me worse than my father did. She treated me worse than he did. They only sent me to high school because they knew I hated high school. All I could do at high school was study. They made me live in the garage with my sister. She was born defective. She was short and fat. She had her bladder on the outside of her body. She was always sick. She had kidney disease. We loved each other. We only had each other to love. When she died of a kidney disease, they said, 'Good.' They wouldn't let me go to the funeral. They just buried the only thing I loved. I was a freshman in high school. The next year my mother drank herself to death. Then my father married a woman worse than my mother. She didn't let me go in the house. She would bring slop out to the garage and make me eat it. Said I could eat myself to death. I would be good riddance. She was a drunk like my mother. The social worker didn't like me, either, but she did send for some medical examinations. The doctors didn't like to touch me. Now my stepmother and my sister were all dead. Welfare told me to get a job. I got a job scrubbing floors. The men make fun of me there. They offer each other money to have sex relations with me, but nobody will. I am just not, good for anything. But I would like to live. I have got a place where I live. It is an old shack. I don't earn much—eat corn meal mush and potatoes and things like that. I thought maybe you could hypnotize me and do something for me. But I guess it isn't any use."

In a most unsympathetic, peremptory fashion she was asked, "Do you know what a library is? I want you to go to the library and take out books on anthropology. I want you to look at all the hideous kinds of women men will marry. There are pictures of them in books in the library. Primitive savages will marry things that look worse than you. Look

through book after book and be curious, horribly curious. Then read books that tell about how women and men disfigure themselves, tattoo themselves, mutilate themselves to look even more horrible. Spend every hour you can at the library. Do it well and come back in two weeks."

Ann was awakened from her trance with this posthypnotic suggestion and left the office in the same cringing fashion as she had entered it. Two weeks later she returned. She was told to waste no time—to go into a trance, a deep one, immediately. She was asked if she found some pictures unpleasant to her. She spoke of finding pictures of the steatopygous women of the Hottentots, and of duckbilled women, and giraffe-necked women, of keloid scarification in some African tribes, of strange rituals of disfigurement. She was then instructed to go to the corner of the busiest section of the city (in a waking state) and there watch the peculiar shapes and faces of the things that men marry. She was to do this for one whole week, and then the next week she was to look at the peculiar faces and peculiar shapes of the things that women will marry, and to do this wonderingly.

She obediently returned, went into a trance and stated with simple wonderment that she had actually seen women almost as homely as she was who wore weddings rings. She had seen men and women who seemed to be man and wife, both of whom were hideously fat and clumsy. She was told that she was beginning to learn something.

Her next assignment was going to the library to go through all the books she could on the history of cosmetology—to discover what constituted desirable beauty to the human eye.

Ann made a thorough search and entered the office without cringing, but still clad in her polka dot dress.

Her next assignment was to go to the library and look through books dealing with human customs, dress, and appearance—to find something depicted that was at least 500 years old and still looked pretty. Ann returned, developed a trance immediately upon entering the office, sat down, and spoke eagerly, relating what she had seen in books. She was then told that her next assignment would be very hard. For two weeks she was to go first to one women's apparel store and then another, wearing her frightful polka dot dress. She was to ask what she really ought to wear—to ask so earnestly and so honestly that the clerks would answer her. She reported after this assignment that a number of elderly women had called her "dearie" and explained to her why she should not wear millions and millions of polka dots. They told her why she should not wear dresses that were unbecoming—that served to exaggerate her hideous fatness. The next assignment was to spend two weeks in obsessive thinking: Why should she, who must have been born weighing less than 20 pounds, have added such enormous poundage? Why had she wrapped herself up in blubber? From that assignment she reported she couldn't reach any conclusions.

Again, in the trance state, she was given another assignment. This time to discover if there were really any reason why she had to weigh what she did ... to be curious about what she might look like if she weighed only 150 pounds and were dressed appropriately

... to awaken in the middle of the night with that question in mind, only to fall asleep again restfully. After a few more trances in which she reviewed all her assignments, she was asked to recall, one by one, each of her assignments and to see whether they applied to her.

Ann was seen in two-week intervals. Within six months she came in, with great interest, to explain that she could not find any reason why she should weigh so much—or why she should dress so atrociously. She had read enough on cosmetology, on hair dressing, and makeup. She had read books on plastic surgery, on orthodontia. She asked piteously, in the waking state, if she could be permitted to see what she could do about herself. Within another year's time Ann weighed 150 pounds. Her taste in clothes was excellent. Ann had a much better job. She was enrolling in the university. By the time she graduated from the university, even though she still weighed 140 pounds, she was engaged to be married. She had had two teeth that had developed outside of the dental alignment removed and replaced. Her smile was actually attractive. Ann had a job in dress designing as a fashion artist for catalogs and newspapers. She brought her fiancé to meet me. She came into the office first and said: "The darn fool is so stupid. He thinks I'm pretty. But I am never going to disillusion him. He's got stars in his eyes when he looks at me. But both you and I know the truth. I have difficulty in keeping below 154 pounds and I am afraid I am going to reach more. But I actually know that he loves me this way. You will find Dick the handsomest man in the state."

She brought Dick into the office and winked at me. Then she left. As the door closed behind her, Dick turned to me and said, "Isn't she just a beautiful dream?" The writer agreed as he looked at "the handsomest man in the state." He was fully as homely as Ann—manly more so. His features had been thrown together—but did not seem to fit together. Yet Ann truly thought he was the handsomest man in the state—even the nation.

They have been married for 15 years. They have three handsome children, two boys and a girl. This writer has looked the children over. They show every promise of growing up to be physically attractive in every way. Dick still thinks that Ann is a beautiful dream. Ann winks at me with amusement as she states, "That handsome fellow actually thinks I'm pretty." Economically they are successful. Socially they are successful. Ann talks freely of her therapy since she remembers everything that was said to her. She has stated more than once, "When you said those awful things about me, you were so truthful. I knew that you were telling me the truth, that I could trust you. I am so glad you told me the truth. But if you hadn't put me in a trance, I wouldn't have done any of the things you made me do. I just wonder—how did Dick grow up? His parents must have praised and flattered him. Yet, being handsome, it hasn't affected him in any way."

To know how to communicate with patients is all-important in medicine, in all branches of life. Semantics are important, but communication is basic. Hypnosis needs to be recognized as a science of intercommunication.

### **Sandra W.**

Having first telephoned for an appointment, this rather beautiful 38-year-old woman entered the office and asked, "Do you use hypnosis?" She was answered, "If I find it necessary and helpful." She proceeded to take a seat and explained, "I think it is necessary in this case. Most people won't believe this, but I am sure you will. I am troubled by nude young men that float in the air just above my head. See them up there next to the ceiling? Wherever I go they follow me. No matter what street I walk on, they are always in the air just above me. They never do anything. They just float."

"Now there is a second thing I want you to do. Quite often I like to float up into the sky and travel around the world on a cloud. Some people think I am just sitting quietly in a chair. Actually, I am up on a cloud floating around the world. Sometimes, instead of doing that, I go down to the bottom of the Pacific Ocean, where I have a beautiful castle made of glass. I spend a day or two, sometimes even a week, there. It's so lovely to look out at the fish that are swimming all around my castle. I cannot tell these things to people. They don't understand. They call me crazy. My ex-husband got a divorce because he wanted to put me in the State Hospital. I don't want to go there because I am able to work and support myself. I just don't want to have people interfering with me. Now, if you use hypnosis, can you do something about those nude young men? And can you protect me from criticism when I go down to the bottom of the Pacific ... or when I float around the world on a cloud?

"By the way, Doctor, are you sure you are ethical? I notice that over there in that corner of the office you have a half-dozen nude dancing girls. I don't want my young men to associate with them. It wouldn't be moral. So would you keep control over your nude young women? I hope that all you do is let them dance for you."

This was the introductory meeting with a young woman who suffered from schizophrenia, catatonic type. She was working as a secretary for a real-estate firm for the summer and handling her work most satisfactorily.

"I've been married twice, but I didn't tell either of my husbands about the nude young men or of going around the world or to the bottom of the ocean. After we were married I told them about everything. George was so mad about it he beat me up something terrible. Bill just acted plain awful. He called in some psychiatrist. They said I was psychotic and they wanted to commit me to the State Hospital. They took me to court for a hearing. I figured that the fuss must be about those nude young men ... and taking trips around the world ... and my castle on the bottom of the ocean that disturbed Bill so often. So I just flatly denied all those things and I wasn't committed. Bill got a divorce.

"I have been teaching school regularly during the school year and always take a secretarial job during the summers. I have only been married twice so far. But neither of my husbands seemed to understand. It is awful worrisome teaching school—keeping the children's attention so that they won't notice those young men. It is so embarrassing when I take a bath, but I have gotten used to it. They won't even let me go to the bathroom alone. So I always wait until night, and then I don't turn on the light.

"One summer I told my employer about the nude young men. The next day I was fired and he gave me a check for two weeks. I never could understand that. He seemed to be such a sensible man." I came to you for help. What I want you to do is to hypnotize me. I don't want to be troubled by these nude young men. They are mine as those nude dancing girls are yours. I want to keep right on making my trips around the world. But lately I have been staying in my apartment for as much as week at a time—to take a trip around the world on the cloud or go down to the bottom of the Pacific and spend time in my castle. I want you to change things hypnotically. Don't take away my young men. Don't stop me from going around the world. Don't stop me from going down to the Pacific. Just see to it that I keep these things, but don't let them interfere with my everyday life. Now I am ready to go into a trance."

Indeed the patient was. In less than five minutes she gave every evidence of being in a profound somnambulistic trance. She was asked to remain in the trance and to talk freely. Her statement was rather peculiar. She said, "That poor girl that is really me is just plain psychotic, but she doesn't know it. She is hallucinating. She is going to the library and she has read up on catatonic schizophrenia. She is really afraid. She is covering up with you. She does not even know how afraid she is. Don't you ever let her find out how afraid she is because she might do something awful. Sometimes she has thought of suicide. Several times she has taken an overdose of sleeping pills. She just doesn't have anybody she can confide in. She thinks maybe you are all right, and will you be awfully kind to her? And you won't think bad about her because, even though she is psychotic, she is normal. Now and then she goes to bed with men, even if she isn't married to them. She wouldn't want you to know that. There are a lot of things she doesn't want you to know about her until she trusts you completely. You will have to do something about those nude young men. She is giving too much time to them. She is taking too much time to travel around the world ... too much time to go down to her castle at the bottom of the ocean. She really enjoys and believes that the castle and the trip around the world exist. She enjoys looking down at Hong Kong and other cities. Do you think you can do anything for her?"

The somnambulistic patient was assured that, with her help, something could be done for "this psychotic girl. She is really me, you know." Instructions were offered. She listened carefully.

Slowly and systematically an explanation was given her of dreams. Normal dreams that everybody has, in which one dreams of falling off a mountainside. Falling and falling and falling forever, it seems. Finally, after what seems to be hours of falling, you hit bottom and wake to discover that you have only fallen out of bed. Yet, it seems as if one has been falling for days and weeks and months and years. It was suggested that she employ this same normal mechanism of behavior and, at any time, climb onto a cloud and feel herself floating gently around the world. She was to feel as if it were taking days and weeks and even months, maybe even years. Yet in actual clock time this will be accomplished in a minute or two or three. She smiled very happily and asked—couldn't she do that in her trips to the bottom of the sea, too? She was told she could even stay

three months and the clock on her kitchen shelf would only show that she had been gone a minute.

Ready agreement was expressed, and the somnambulistic patient said that this arrangement could prove most satisfactory. But she asked most gently about the nude young men. The writer explained that he had a rather large closet attached to his office and that he could let the young men float in there. They could remain in the closet and that any time, night or day, she would be at liberty to come to the writer's house (the office is in the writer's home) and look in the closet to see if they were still there.

The patient continued to teach school for several years, and was a most competent teacher. At first, at least twice a week, she would drop in the writer's office and ask if she could look in the closet. She was always satisfied. The frequency of these visits decreased. Finally she was making them only once in three months. Then once in six months. Then approximately once a year. During this period of time she made many trips around the world on the cloud. She took great pride in being able to make a three-month trip in three minutes' time ... in being able to stay months in her castle at the bottom of the Pacific in only three minutes of kitchen-clock time. After about three years the patient began having difficulties and sought further help. She explained openly that she was having "psychotic episodes." These "episodes" she "reserved" for the weekend, but they were becoming rather difficult. She wanted to know what she could do about them. She explained further that she did not see how she could put them in the closet with the nude young men. They might become disturbed. She didn't know if these episodes would disturb her in her teaching and in her summer work as a secretary. They might also disturb her employers and other people. She was asked what she thought she ought to do. Her statement was rather simple. "I think I think better and more clearly when you put me in a trance." Accordingly a trance was induced. In the state of somnambulism she said, "The poor thing, she is really having psychotic episodes. They are most distressing. She hasn't really told you the truth. She had to pretend she had a headache and get an excuse from teaching. She has missed more than the allowable number of sick leave days. She really has to do something about it. Last summer she lost two jobs as a secretary. You thought of putting her young men in the closet. Why don't you think of somewhere to put her psychotic episodes?"

The question was asked, "Could she put them in a manila envelope? Let them do whatever they want to do in the envelope and therefore not interfere with her. She could go by the office and leave the envelope for placement in the files." The patient thoughtfully considered this and asked, "Can you tell me [the next time she has a psychotic episode] to go into a hypnotic trance and put the psychotic episode in an envelope and bring it to you?" An agreement to this effect was reached.

The next week the patient appeared most unexpectedly, obviously in a somnambulistic state. "Here's the envelope. Don't open it. It is sealed carefully. The psychotic trance is in there. Put it in your filing cabinet. She will come by later and ask to see it." A few days later the patient appeared in the office and said, "I believe you have something of mine, but I don't know what it is." The sealed manila envelope was taken out of the files. She

said, "So that is where my psychotic episodes went. You know, I think that is a good idea." For 15 years the writer has been receiving in the mail envelopes containing "psychotic episodes."

The patient is now living in a city 1,000 miles away. During one disturbing episode she took a sick leave and came to see the writer. She demanded to see the envelopes containing her "psychotic episodes." They were carefully taken out of the file, one by one, and shown to her. Before this task could be completed, she said, "Now I know I can trust you. Couldn't completely before. You don't have to take out the others. Now I can feel comfortable sending them to you."

At present the patient is gainfully employed and has a civil service position. She will soon be eligible for pension. She has been married eight times and has been self-supporting, but she has never been able to establish a savings account. She was last seen two years ago. She looked at least 15 years younger than her age. She felt free to tell the writer that there was a period of time when she became addicted to alcohol, joined Alcoholics Anonymous, and overcame the problem.

Hypnosis is not a cure. Neither is insulin in diabetes. This writer has used hypnosis on more than one psychotic patient to keep him a productive citizen. The above case history illustrates the value of intercommunication between people to establish good purposes. All of her marriages were brief, psychotic in character. She is not a mental hospital patient. She is a successful civil service worker—not a burden on society. How many more mentally ill patients, hopelessly sick, might be economically rehabilitated if physicians understood hypnosis as a modality of communication of ideas, understandings, and useful unrealized self-knowledge contained in what is popularly called the unconscious?

Only by hypnosis could this patient be approached and contact indefinitely prolonged.

## **HYPNOSIS TODAY—A TREND**

Until very recently the study of hypnosis had been restricted to its external phenomena. Now it is realized that it is useless to continue to study hypnosis merely for itself alone. It is the association between the psychological aspects and the physical manifestations that now call for investigation. Today's developments are born of the realization that hypnosis opens the door to a more searching interest of how the person in his body behaves and reacts.

One need only study the mentally ill to note phenomenal changes not understandable by ordinary medical and psychological reasoning. By hypnosis one can so alter a person's consciousness of his environment that, in his reactions, he can call upon past experiences and learnings to utilize and accomplish equally phenomenal changes. How does a woman have an anesthetic childbirth by the spoken word? How does a man with hemophilia have, bloodless dental extractions without medication? We need to understand the secrets of this sort of thing if we are to understand, psychologically, both health and illness.

The Fourth World Congress of Psychiatry held in September, 1966, in Madrid, disclosed a significant development of scientific interest in hypnosis at the complex physiological level. There was dissension about the ultimate question—why does the unwilling patient heal slowly? And the opposite question—how can this intrinsic force which delays healing be reversed in order to alter the unwilling patient psychologically so that he can heal more rapidly?

Thus today the trends in hypnosis center around a scientific understanding of the functioning of the human body, the forces that influence it, the means by which it can be influenced. Hypnosis can be used to elicit the learnings acquired by the human body, but unrealized by the person. Pain and stress are two of the greatest medicinal problems in their many aspects. These need to be dissected, analyzed, and studied. Mental disease is the breaking down of communication between people. Hypnosis permits a development of communication.

In laboratories of psychology departments, the physiological laboratories, the dental schools, and even in the everyday practice of medicine much is being learned about how to talk to people, to understand them. Any statesman can tell us that most of the world's troubles derive from a lack of intercommunication. So it is with matters of human illness and health. Hypnosis is not a simple matter. It is another important tool in exploring human behavior from a new and different approach a tool that will lead to a definition of the still undefined "personality" and allow us to learn how the human body reacts to stimuli. Stimuli can then be given to take advantage of existing, but unrealized, body learnings.

# Hypnotic Approaches to Therapy

Milton H. Erickson

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I did bring several typewritten papers with me to read on "Approaches," but I also brought some notes that I think it might be better to talk from.

The first item that I want to mention concerns my demonstration this morning. I requested my subject's permission to say these things. I met her Wednesday—she came over and spoke to me. I've watched her and reached the conclusion that she has a tremendous number of conflicts. She has given me permission to tell you that. When she came up, the remarkable thing was her absolute honesty in telling me that she would resist. Therefore, it became a problem not of trying to force anything upon her but of trying to utilize her resistances and to adapt them in such a fashion that she could accomplish something, so that the members of the conference could obtain information on methods. After induction procedures the subject showed catalepsy of the left arm. In other words, she could yield on one point, but she'd be damned if she'd yield on the other! It was beautifully done on her part, and I think it was a most marvelous thing on her part. Another phenomenon—Dr. Pattie mentioned it to me—was that when she was asked a question, she would nod her head and keep nodding her head long after it was necessary. She didn't know that, but the rest of you knew it. She was not really aware of it. Her answer was that she wasn't really in a trance, but I think some of you realize that she was definitely out of contact with the audience on a number of occasions. She just didn't know you people were here. This was no reflection upon your impressiveness, but just an indication of her ability to forget all about you.

All this is an introduction to one important thing, and I think it is paramount in any approach to hypnotic therapy. That is that one must always protect the subject or the patient. The patient does not come to you just because you are a therapist. The patient comes to be protected or helped in some regard. But the personality is very vital to the person, and he doesn't want you to do too much, he does not want you to do it too suddenly. You've got to do it slowly, you've got to do it gradually, and you've got to do it in the order in which he can assimilate it. A certain number of calories of food per day are necessary, but don't cram them all down at breakfast; if you do, you'll have a stomachache. You spread them out and you don't cram them all down in one mouthful. You take a number of mouthfuls. It's the same way with psychotherapy, as any analytically trained person will tell you. You go into some matters slowly, easily, and gently. In the matter of hypnotic psychotherapy you approach everything as slowly and as rapidly as the patient can endure the material. You don't do it by a drastic, driving technique because that can be rejected. The slow approach enables the patient to recognize there is value in this idea, there is value in that idea, and that's what you want

him to do: to recognize that there is value in this idea and that is value in that idea. Furthermore, you therapists really don't know what the problems are, and it is your job to find out. The patient doesn't consciously know what the problems are, no matter how good a story he tells you, because that's a conscious story. What are the unconscious factors? You want to deal with the unconscious mind, bring about therapy at that level, and then to translate it to the conscious mind.

I think an experiment that I did in antisocial behavior illustrates the need of that approach. I took two secretaries and had them each in a deep trance, and I told them separately an utterly malicious and false story about a third secretary. The third secretary knew that I was going to do it and consented to it. I told each of the two girls that utterly malicious, false story, and a couple of days later Secretary A came to me—they both avoided the third girl—and told me she had a very bad headache. In fact, she'd had it since the last hypnotic session with me, and would I please do something about it. I took her in my office, put her in a trance, and she recalled that malicious story. She then gave me her very frank opinion of anybody that would tell such a malicious story about C. She really handed it to me, and it was necessary for me, in self-protection, to call in some of my collaborators and produce the typewritten protocols of the experiment to prove to her that it was an experiment. That was all in a trance state. Then I awakened her, and she promptly recalled a full recollection of the malicious story and she really gave me a nice bawling out—a second one, because my explanation had not yet seeped through. It was necessary again for me to call in my collaborators and bring out the protocols and explain the experiment all over to her conscious mind, so that she knew it at both levels.

Thus, one tries to do hypnotherapy at an unconscious level but to give the patient an opportunity to transfer that understanding and insight to the conscious mind as far as it is needed.

The second girl told me she had had a headache ever since the last time I had hypnotized her, and wouldn't I do something. So I gave her some aspirin and told her it would fix her up. About an hour later she came into the office and told me what sort of a liar I was. It was rather difficult together to consent to see the protocol of the experiment, and she cussed out my collaborators thoroughly too. After I had convinced her in the conscious state, I had to put her in a trance and go through all the whole ordeal with her a second time, because she needed to know it at both a conscious and an unconscious level. It was also necessary to call in the third girl about whom the story had been told to convince both of those girls that it was a put-up job, and she had to tell them both in the conscious state and in the unconscious state.

In therapeutic approaches, how does one protect a subject? I had one extremely bitter experience. I had a nice experimental subject that I was working with and I wanted her to do some hallucinating. I told her to see the loveliest thing she ever saw in her life. I thought that was a safe suggestion, and I gave her a mirror in which to hallucinate the loveliest thing she ever saw in her life. I learned a very drastic lesson. What was the loveliest thing she ever saw in her life. Her mother had been killed in an automobile accident, and she saw the mother's face in repose in the coffin. She burst into tears, and I

lost rapport with her. It took me three weeks to regain that girl's confidence and trust. She was an excellent experimental subject. I learned that when you give suggestions, therapeutically or experimentally, you try to give them in a way that is going to permit the patient or the subject to handle them in a fashion that does not arouse too much difficulty.

In therapeutic approaches one must always take into consideration the actual personality of the individual. One must give thought as to how they express their behavior. Are they overfriendly, hostile, defiant, extroverted, introverted, so on? One must modify his own behavior—that is, the therapist actually must be fairly fluid in his behavior, because if he is rigid he is going to elicit certain types of rigid behavior in the patient. In turn, the patient's rigid behavior is unfamiliar to him, and he is not going to be able to handle him properly. Therefore, the more fluidity in the hypnotherapist, the more easily you can actually approach the patient.

I think perhaps the best way to continue is to give my thoughts as they come to me, and not try to follow a rigid outline.

Who is the important person in a therapeutic situation? Is it the therapist? I really don't think the therapist is important at all. I don't think that the hypnotist is important in the experimental situation. I think he is part of the apparatus, and nothing more. I think the apparatus should be in well-ordered condition, run properly, and so on, but I don't think that any experiment is possible where you have only apparatus. You need a subject in therapy. I don't think the therapist is *the* important person; I think the patient is *the* important person in the situation. I think, too, that the patient should be given the opportunity to dominate in any way, whether it is by complete subservience or by complete dominance of the situation. It is this that the patient comes in for, not to have the therapist take charge, but to give the therapist an opportunity of doing something, and doing something in accord with the needs of the patient, not in accord with the needs of the therapist. I disagree with a lot of therapists who think that they should sit up straight behind a couch, and take notes, and more or less direct this thought and that thought, because that is just their understanding and it is the patient's needs that should be met. Now, this is not intended as a criticism of psychoanalysis, because it is extremely valuable.

Recently I had an experience in experimental therapeutic procedure that I want to cite. It's not published; in fact, all of this material that I am going to give is unpublished. It concerns this problem of amnesia that was mentioned—the John Does. How often are these amnesia victims really amnesic? How often are they neurotics who are having their amnesia serve as a recognizable purpose?

A patient that I know was picked up by the police in Phoenix. They attempted to ascertain her identity and her age. I happened to be one of the psychiatrists called. She gave the year as 1934, and she thought the calendar on the wall was wrong. Moreover, she knew she was not in Phoenix because she knew that was not possible: she had never been in Arizona. The real truth was, of course, that she had been in Arizona for several

years; and certainly it wasn't 1934, it was 1952. She was afraid of everybody, so my wife went with me as a reassuring person. The question was, how would you really handle that amnesia?

All of us have heard about age regression. Obviously, there had been a spontaneous age regression; and a few questions here indicated a definite age regression—a spontaneous one—in which the amnesia was very definite. She took a violent dislike to me because I carried a cane, and she took a violent dislike to me also because I wore a moustache.

When the police officer introduced me to her as Dr. Erickson, she took a violent dislike. I asked him to repeat my name until he wondered who was the patient, because I wanted to know what the situation was. I soon found out that it was the first part of my name—not Erickson, but Erickson—to which she objected. So there must have been an Eric somewhere. Where did the cane come in—the fear reactions, the trembling, the perspiration, the involuntary responses she showed to a cane?

I took her to my office and puzzled over this question. What can you do for a genuine amnesia? She was back in 1934, and then I hit upon the very happy idea: why not reverse the process? I pointed to the wall and told her "There's a calendar there, and I think if you look real hard you'll see a calendar that reads 1934." I wanted to put myself into that amnesia pattern, and it wasn't long before I had her seeing a calendar of 1934. Then we watched the leaves of that calendar torn off, the way they do in the movies, one by one, and the years change. And it wasn't April, 1934, it was May, 1934, then June, then July; and then '35, '36, '38. I slowly, gradually, systematically, brought her up to November 1951, and the event of her amnesia.

Some time later she developed another amnesia. It was 1943, and I used the same technique to bring her up to 1952. She became my patient and I learned a great deal about her history. She had had a tremendous number of traumatic experiences in 1934. I know who Eric was. He wore a moustache, had gray hair, and carried a cane. And she had good reason to fear anybody with gray hair who wore a moustache and a cane, and who had those syllables of Eric in his name.

That reversal of regression technique I have tried on experimental subjects many times without realizing its therapeutic situations with patients who suddenly get the needle stuck in a certain year and just can't get away from those events, keep repeating them in an obsessional, compulsive fashion. In such cases you systematically reorient them—a day, a week, a month at a time—until they come to the present age. And what happens? They know something about the control of obsessional, compulsive behavior.

In this same connection there is another exceedingly unpleasant experience that I had therapeutically. This patient came into my office. She had been my patient for some time, and I thought I was making excellent progress with her. That day she was wearing a brand-new dress and she said to me, "Doctor, would you like to have me model my dress for you?" She modeled it very nicely, and then she said, "You know, I'd really like to tell you about a dream I had." So I said, "Go ahead."

She sat down comfortably to tell me the dream, when a look of horror came over her face. She lost all contact with me, and I had to rush to the door to keep her from dashing out and dashing downtown until at least I could understand what was going on. My original diagnosis of her was acute paranoid schizophrenia, and she certainly looked and acted then like a paranoid schizophrenic. I had hypnotized her previously and made use of physical signs—lifting the arms, inducing catalepsy—because usually, with a therapeutic patient, where I use hypnosis I bring about some physical condition so that I can always get in contact. I finally managed to get close enough to her to get hold of her wrist and gently lift it so that she would go into a trance. She was, however, in one of those mute and unresponsive trances.

It took me about four hours, very painful hours, to find out how to handle that apparently deep paranoid episode. I finally hit upon this idea: She didn't like something, she wanted to escape from something. That something had happened at such-and-such an hour—four o'clock, on Tuesday, June 5th, and then of course it wouldn't have happened. And what was it that happened? Well, since it was before June 5th at four o'clock, nothing had happened—in other words, an absolute denial of everything. So I carried her back to May and reestablished relationships with her at the May level. She was friendly, agreeable; then I asked her what she thought about the possibilities of next month. We talked about the possibilities of next month, how she would feel about it, and what possible material might come forth next month. We speculated more and more; and as soon as I tried to approach Tuesday she started getting rigid, her face seemed molded, and so on.

It took four hours, as I have said, before I got her willing to admit the fact that on Tuesday, June 5th, at four o'clock she would come into my office and model a dress for me and then suggest the topic of dreams. The dream happened to be an incestuous dream, and she just couldn't tolerate it. By retiring her to May and then tracing up to June, it was possible to handle it. It was exceedingly slow, painful, and laborious, but the patient needed to get over it and to get an understanding of it.

Another patient was presented to me under rather difficult circumstances. Some people with a psychoanalytically oriented background came to me and said they thought hypnotherapy was without value, and they challenged me to give a demonstration of hypnotherapy. I told them I would be glad to do it and that we probably all would learn something. They said they would select a patient for me. Let's call him Harvey. I took one look at Harvey. He certainly was his mama's dishrag if ever there was one—colorless, coatless, discouraged. I found out that he had been under the treatment of another psychiatrist for a couple of years. He had a pain here—and then he had a pain here—and then he had another pain here.... He was wonderful—as a pathological specimen. But when you talked to Harvey, you wondered if underneath all of that there wasn't a nice guy.

I took Harvey into the seminar room and put him in a trance. He very willingly, very gradually went into a trance. He would do anything to please an authoritative figure. With him you could use the direct, forceful, hypnotic technique. One of the things I found out from his psychiatrist was that Harvey worked in an office doing clerical work far below

his ability. He was usually sick about once a month and lost a day's work, and had a feeling of being unhappy in his work. One of the reasons was this: There was a pile of ashes outside his office, and there was a black man who came to carry away those ashes who was very resentful of white people. He would come into the office, open the window, and he would then shovel the ashes so that, when the wind was right, the ashes blew into the office. Poor Harvey would sit cowering at his desk and wish he could tell off that black man, who was only about 18 inches taller than Harvey and much more muscular.

Even though Harvey worked at a desk, he couldn't write his name legibly. The other psychiatrist had tried to get him to do that over and over again, but Harvey just couldn't write his name legibly. This poses the question as to where one starts in therapy. My feeling was that with Harvey and the sort of situation presented I had an excellent opportunity to demonstrate the importance of the point of departure in therapy. I trained Harvey to be an excellent subject, so that he could hallucinate, both positively and negatively. I avoided the matter of writing. He could describe driving along the street and could bring forth childhood memories which, the other psychiatrist assured me, were not loaded with emotion. Finally, when I thought Harvey was a really good hypnotic subject, I took the opportunity of giving him a pad of paper and asking him, in the trance state, to write his name. His writing in the trance state was just as bad as it was in the waking state. I asked him to write, "This is a beautiful day in June," and it was barely legible.

I then had one of the group who had a beautiful handwriting write his name and "This is a beautiful day in June." When I praised that beautiful writing, Harvey simply cowered in his seat at hearing somebody else getting praised—a painful situation for Harvey. Then I asked Harvey, "How do you suppose Dr. Jones feels about what I said about his handwriting? How do you think he feels about that handwriting? How do you think the pencil feels in his hand? How do you think a pen would feel? How do you think his hand would feel against the pad of paper when he writes so beautifully? How do you think he will feel a year from now when he reads that?"

Harvey really started thinking about it. And then I asked him, "How much would you like to do that sort of thing?" Harvey said, "I'd give anything if I could write legibly, but I can't."

Having laid that foundation (which I have abbreviated very much), I had Harvey hallucinate in crystal balls—they're much cheaper than the kind you can buy in a magic store, and you can distribute them wherever you want all around the room. I asked Harvey to look into a designated crystal ball and to see a little boy, viewed from the rear. "That little boy must be pretty unhappy," I said. "I wonder why. He looks as if he's very, very unhappy. You look at him and tell me where he is."

Harvey said, "Why, that's a little kid about six years old, and he's sitting in his desk at school. The teacher just walked away. She's got a ruler in her hand. She must have been punishing him."

I said, "All right. Now look in that crystal up there [indicating another ball]. I think you'll see that same little boy at the age of 12. What's he doing?"

Harvey looked and, sure enough, there was a boy of 12 in it. "He's walking through the woods with his brother, carrying a gun."

I asked Harvey how he knew it was the boy's brother.

"I don't know. I just think that. The 12-year-old boy does not seem very happy. He doesn't like that gun, and he looks rather unhappy. I don't like the looks of that."

I said, "Why?"

"Well, there are the two boys. One's about 14 or 15, and the other boy is about 12. They have a dog with them. They are going hunting. But that 12-year-old looks just like that boy over there, and he's miserable. I wish I could see his face. Now he's left his brother, he's wandered off to that tree over there, and he's very miserable. He's practically crying."

"Well," I said, "what about that crystal up there? Can you see that same boy in that crystal about the age of 20?"

He looked, and he saw him there.

I said, "How does it seem to you that he's behaving?"

"Well, he's very, very unhappy. And you know, it's the same kind of unhappiness. They're the same boy at different ages, but they all have the same feeling. They're very unhappy."

"What about that crystal there? He's about 30."

Harvey looked. "The same sort of unhappiness!"

"Well, how does it happen that a six-year-old boy and a 30-year-old boy all have the same kind of unhappiness? At least you describe it as such."

"They're really the same boy—but how can that be? I don't understand. But they *are* the same boy, and it *is* the same kind of unhappiness."

So I asked him, as a preliminary, "Now, is there anything else in that crystal there ... anything else in that crystal [indicating different crystals]?"

He said, "No, up there ... but up there—and how did it get up there—there's a place for a doghouse, and it doesn't make sense. But there's a place for a doghouse down there too, and that doesn't make sense."

We discussed that for a while. The psychoanalyst questioned him about it, but Harvey was very limited in his replies. Then my question was "Now, suppose you look at this crystal and see if you can explain something—why there's dog here, a place for a doghouse there, and a place for a doghouse *there*. Just see something that explains it!"

Harvey looked into the crystal and said, "Why it's that six-year-old boy coming home from school. He's still got some unhappy feelings. I wish I could see his face, but I suppose it isn't important. He's still rubbing his face—at least, looking at him from behind, that's what he seems to be doing. There are some policemen there, and one of them is holding a revolver. The boy rushes in to see what it's all about, and the policeman has just shot his dog." He paused thoughtfully. "But he didn't know about that when he was at school. Then when he was 12 years old, he went hunting with his brother.... Why, there was an accident to his dog! And that boy has never dared to own a dog since then. *That's* why there's a doghouse there in that crystal and a doghouse there."

I said, "Well, maybe that does explain it. But the boy was crying in school, before he found the dog killed. Why was he crying in school?"

"I don't really know, but I've got the most awful feeling in my left hand. And I know just how that boy feels. It feels as if somebody took a ruler and rapped me on the hand for writing with my left hand."

So I quickly shifted the scene, dropped it right there. I awakened Harvey and had a social interview with the psychoanalyst, spending about half an hour chit-chatting about this and that, and then put Harvey into a trance. I wanted those ideas to soak into his unconscious.

When he was in a trance, I told Harvey, "I'm going to give you a piece of paper and a pencil, and I want you to write your name the way that six-year-old boy would have liked to write. But I want you to write with your right hand, just as the other psychiatrist told me he wrote with his right hand—and I mean that he *did write with his right hand*. I want you to have an idea that you can take over Dr. Jones's feeling about his excellent handwriting as you write your name. I don't want you to write it just yet. I'll put the pad of paper there and the pencil there, and after a while I'll have a cigarette and you'll pick up the pencil and you won't notice that you're doing it. You'll take it in your right hand, and you'll write your name and 'This is a beautiful day in June' right under Dr. Jones's handwriting. Then I'm going to awaken you, and you'll have no knowledge of having written. Anybody who tells you that you have written anything is nothing but a damned liar—and you tell them so. Make no bones about it. Just tell them they are damned liars."

He wrote his name and "This is a beautiful day in June." I awakened him and we chatted for a while socially. Then someone I had picked out took up the paper, looked at it, and said, "Well, Harvey, you certainly have a good handwriting."

"I have not!"

“Well, here’s your name and here’s where you wrote ‘This is a beautiful day in June’ . . .”

Harvey told him just what kind of a liar he was.

Somebody else told Harvey how good his handwriting was, and was informed as to his status and his veracity. We went through the entire group. Then I said to Harvey, “Well, they may be offensive liars, and cheats, and frauds, and so on, but if you watch that pencil there on the desk—if you just watch it, you’re going to see something very interesting, because the hand that wrote your name and ‘This is a beautiful day in June’ in such good script is going to pick up that pencil. See if you can identify the hand.”

“All right,” Harvey said, “but nobody’s really close enough, and it ought to be easy to identify the person who walks up to the pencil. So I’ll watch the pencil . . .” He turned his attention carefully to the pencil. And then, “Why, that’s my hand! But I can’t write that good. I don’t believe it! This writing here—‘This is a beautiful day in June’—it’s good script!” He paused a moment and then, very deliberately, said, “That *is* my hand and I *did* write it.”

I said, “Then we’re all agreed, and we’re not going to dispute with you. That will be all for this session.”

The next day—but it wouldn’t have made any difference if it had been a couple of days later—the wind was blowing just right. The black man came in, opened the window, and started shoveling ashes. Harvey went out, stepped up to the black man, and said, “Listen, big boy. If you were working where I am, would you like all those ashes blowing in on you?”

“Well, no, I wouldn’t.”

“Then why did you open the window?”

“White boy, I think I was just being cussed, and I’m going to close it for you.

The window was closed by the black man. Harvey went home; the next day he went to his boss and said, “Listen, I’ve been working here for several years, and I haven’t had a promotion or an increase in salary. Don’t you think it’s about time?”

The boss said, “Why, yes.”

Harvey went to his psychiatrist and said, “I don’t know what you’ve done to me. You know, I’m 32 years old and I think it’s about time I got a girl. Don’t you think so?”

The psychiatrist said, “Well, you know, I’ve got nothing to say about that. You’ll have to consult Dr. Erickson.”

And Harvey said, "To hell with Dr. Erickson! I'm going to get a girl."

Harvey's happily married. He writes legibly.

Now, where did that therapy take place? How much did I need to know about him? I started at the nuclear point—his handwriting. I didn't know what I would get in those crystal images, but I could see a succession of events there that I could investigate, one by one, and then give him that kinesthetic idea—that kinesthetic sense of a nicely written, right-hand script production—and allow him to vent all aggression by letting him call the members of the group damned liars. He had to call somebody a damned liar. He couldn't take out aggression against the policeman for shooting the dog: the dog was rabid, and he was just a six-year-old kid at the time. I didn't know about that either, nor did the other psychiatrist.

Harvey later gave a very nice account of this, when I gave him full recollection of the experience, at a medical group. Harvey is still getting along successfully, and this all took place back in 1945.

I should like to present at this point the use of hypnotherapy in an experimental fashion. I was very much afraid that one of my patients was going to develop schizophrenia. Her very best friend had. She was a very accomplished person, professionally trained, and she worked until 11 at night. As soon as she got off work, she would sneak home, cowering and shivering, because there were some peculiar figures that were following her. Her bedroom was peopled by monsters of some sort. I think you would call her a psychotic, although she had sufficient insight so that you could have some doubts about it. She wasn't quite certain whether she was having dreams or whether her experiences were real.

"How could I have a dream on the street? I've got the feeling, though, that there are monsters back of me in mid-air."

I asked Mary if it wouldn't be a very nice thing to see herself in a crystal ball. I produced one, and she described to me the little girl she saw there.

In some surprise she said, "Why, that's me! And I'm very happy there. I'm playing with my doll. Now I'm going to go over and swing. I certainly was a happy kid. And look at that blue-checked pinafore I'm wearing!"

She really enjoyed looking at herself at the age of six.

So I conjured up another crystal for her. She was several years older. She described herself with a great deal of pleasure.

I said, "Don't look at that crystal over there yet. Let's look at the crystal here."

Slowly, carefully, I carried her through a process of fourteen crystals. The thirteenth crystal was her present state, in which she was walking home from the hospital in fear of those hideous monsters and evils. Were they real or unreal? When she got to the tenth crystal, I told her that she wouldn't know who the girl was in the crystal ball.

She said, "That's a ghastly thing to have me look at."

"Well, you just describe it to me thoroughly, completely, and adequately." We went through the tenth to the twelfth, and they were very, very painful. I said, "Now, I want you to forget the identity of the person in all of these crystals. Just tell me what you think about them—and never mind that crystal over there."

She said, "Well, she was a happy little girl. Then she was a little bit older. There she's going to school—she looks as though she might be in such-and-such a grade. There she's in high school, and there she's going to a Christmas party." And so on. "My heavens! What's happened to that girl? Why should she have such horrible feelings?"

I said, "Well, I don't know—you don't know—but I've got a very pleasant surprise for you. If you'll look in that crystal there, and then look in that crystal over there, you'll discover that they're the same girl. And in that crystal over there, you'll see the picture of a girl who is acting and behaving very real. It isn't really a living picture—it's just a girl in that picture, and she's happy, and she's pleased, and she's going to be doing something that she really wants to do and she's really going to be enjoying it. Now that girl and this girl are the same girl. But the process of growth and development, the changes that occur in life, the accidents in life, and so on ... You know, every story should have a good ending."

She looked and she said, "Well! That six-year-old kid grew up to be a very pretty girl, didn't she? And look at her. She's on a diving board, and she's got on a blue bathing suit with a yellow dragon or something on it, and she's having a wonderful time, she's really enjoying herself. I can hardly believe it. That girl is enjoying herself—she really is!"

I said, "This is only June, but that girl up there is going swimming in August."

Mary went swimming in August. She went swimming in a blue bathing suit with a yellow figure on it—I don't know whether it was a dragon or not. At all events she went swimming. I found out afterward that she had learned to swim and then had developed tremendous fears and anxieties and distresses. She had developed all these other agonies, in spite of the fact that she actually had had professional training, and she had a very difficult time.

She is the head of a professional department at the present time, so I think that experiment was successful. I had a letter from Mary the other day, and she's very happy. She's married—happily married—and getting along very nicely.

What did I do when I started experimental therapy? I let her identify herself in a safe and sure fashion by putting her in a crystal.

There's another item that I want to mention, and that is the idea of time distortion. What do I mean by time distortion? It's been mentioned previously how time can pass very rapidly in the trance state. Lynn Cooper, I think in 1945, published the first article on the subject. Then a couple of years ago Lynn Cooper came to Phoenix, and we worked together on time distortion. Pell reported on that. Lynn Cooper was very much interested in knowing whether you could employ time distortion in therapy, and I agreed that I would try it out. I tried it out with two patients and with very nice results.

How long is time when you're asleep? I can remember the doctor who volunteered for some experimental work at the staff dining room, and I agreed to meet the doctor in the psychology laboratory at one o'clock. She came in. I picked up a book, and we got to discussing psychology and this particular book. I took advantage of that situation to put the doctor into a deep trance. I did the experiment, brought her out of her trance, sat her down, put the book in her hand, and renewed the conversation where I had interrupted it to put her in a trance. We concluded the discussion, and all of a sudden she noticed that it was five o'clock. She expressed her regret that she had allowed her interest in that book to distract me from my experiment.

I said, "Well, it's all right. Tomorrow's another day." She met me again the next day at one o'clock, and I used exactly the same technique, except that I had established a posthypnotic cue for her, saving both time and labor.

After three weeks of that sort of performance the doctor was a little bit irritated with me, and she really castigated me at the staff dining room table.

"Three weeks ago I volunteered to act as a hypnotic subject. All you've done has been to meet me in the psychology laboratory, utter a few inanities about psychological textbooks, and waste my afternoon for three long weeks. I'm sick and tired of that. Either you're going to use me as a subject or you're not. That's all there is to it." (She was downright unpleasant about it.)

Nevertheless, she went up to the psychology laboratory at one o'clock, and I met her there and used the same technique. When the experiment, which required that the subject not know what the experiment was, was completed, I told her that she had been a subject all that time; but I had to tell her in both the trance state and the waking state.

What did time really mean to her? I don't know how many times my patients will tell me, "I've been in here fifteen minutes, five minutes, three minutes." One of my subjects has a neat little trick of checking on a wristwatch, and never allows me to take that wristwatch off. Time perception in hypnosis is one thing; in the conscious state it is another. Cooper has been interested in that for a long, long time. With regard to different kinds of therapy, one of Cooper's subjects, for example, picked some irises, some 150. The actual time spent in that hallucinatory activity was 10 seconds. After the subject was awakened, the

subject was told to remember and was told to demonstrate the rate with which the irises were picked. The rate was essentially the same as if it had been half an hour, which the subject had estimated.

The question came up: How could I use that therapeutically? I had a patient—and I'll give you just one miserable detail of that patient's history, so that you can appreciate why it was difficult to handle the patient. At the age of six a foster uncle decided to take the little girl for a visit. He took her to an isolated cabin, bound her hands and feet to the bed in a spread-eagle fashion, took a jackknife, and really carved up her body in a horrible manner. I've seen the scars.

The physician who referred the patient told me, "I had to fight like a madman to do a physical on this patient. She needs psychiatric care. She isn't an internal medicine case at all. I can't understand those scars. I wasn't able to do a complete physical examination because she fought so fiercely, yet she would apologize and then fight so madly."

It took quite a long time for me to do a physical examination on her. But the scars on her abdomen, and on her thighs, all over her body, were deep and vicious ones. Those of you who have had prison experience in psychiatric treatment know that sort of thing is possible.

I wanted to get from her an account of her past life. She was a good hypnotic subject, and I asked her first to describe a childhood birthday party. I had my stopwatch readily available. The stopwatch was no use. It took her just as long to describe the birthday party that she had hallucinated in a crystal ball as it took for the party to occur. I then tried an auto ride she had experienced when she was a little girl. The time was equivalent. She described things very nicely, very thoroughly, very consistently. If a birthday party took three hours to occur and the psychiatrist didn't know about it, it took three hours of his time to discover the fact. We didn't get very far until fall. It took from July until October to get a history from her. In every instance she gave me only pleasant things, good memories, but in such elaborate detail that they consumed as much time as the original experience.

I therefore carefully explained to her that in a hypnotic state, "just as you are now, time is going to change. Everything is going to speed up with tremendous rapidity, and by the time I drop my pencil you're going to remember everything that happened to you in the first eight years, going to school, things of that sort." I went over and over the idea of speeding up memory. I never got any really traumatic memory except the one relating to the scars that I had discovered. That was the only one. Apart from this I could only obtain from her a dully repetitious, "I got stabbed. I got stabbed. I got stabbed." My knowledge of psychiatry and criminology led me to the conclusion as to what kind of stabbing it was. After I had inculcated the concept of distorted time, rapid time, experimental time, or whatever you want to call it, I told her to look at a crystal ball. I said that I would give her all the time she needed; but in that crystal ball—where she had previously seen a birthday party, an automobile ride, a train ride, some horses, some trees, and things of that sort—she would see everything that had happened to her in a certain period of her

life that covered 16 months. I didn't say 16 months. What I said was "Everything that happened to you from 1930 to 1933, roughly speaking. I don't know, maybe it's the wrong period; but somehow we're going to select the period you should tell me about."

She agreed that she would look in the crystal, and then I explained the Distorted-time idea. I told her that when I said, "Start," she would see in the crystal everything in slow motion so that she could memorize and recall and understand everything so that she could remember and tell it to me. I further indicated that although she would be seeing things in slow motion, it wouldn't take very much time for her to describe what she saw. This was rather a contradictory suggestion, but she understood that. At the proper signal I set my stopwatch; 20 seconds later she had covered 16 months of the most traumatic material imaginable, and did a thorough job of it. The death of her father, the death of her mother, the death of several other people—it was just incredible. It was as if she were held immobile, as if she were fascinated by the terrible procession of events in the crystal. She just couldn't stop, as that chain of slow motions with such extreme rapidity took place.

After 20 seconds' time I noticed that I was fatiguing that poor woman much too much. I put an end to the session, awakened her, and then said to her, "You know, I've never been able to get you to tell me the facts of your life. I've been working through July, August, September, and now it is October. I really don't know very much about you. I do know that you've been stabbed—that's essentially all I know."

She said, "I couldn't stand to tell you."

"Well, we've got the rest of the day. Suppose you tell me."

The rest of the day and a good share of the next day were spent for her to tell the series of events and to bring forth corroborating evidence. I corroborated item after item. I had to write to various sections of the country to get proof. For example, did a certain person and the patient, on such-and-such a day, in such-and-such a year, have an automobile accident? You can get such information from vital statistics, police departments, and public records. I wrote to five different states and found she had given me reliable information. It had taken just 20 seconds to secure the impetus of events. The momentum seemed to carry her along with such impelling force that she was unable to stop. I will agree that I had a difficult time with the patient, for she said, "You have no right to know these things." It took quite a long time for her to recognize that I did have the right to know those things. I explained that she had been hospitalized for severe headaches that would last for three weeks at a time, with nausea and vomiting that couldn't be touched by morphine or anything else. There were other details, but I will not relate them here.

Whether 20 seconds, or 10 seconds, periods increased to obtain information about some other aspects of her life. It took me 10 seconds to get a completely repressed memory. She didn't know why, when she came to my office, she didn't like my six-year-old son. I think he's adorable; but he is the most awful, hateful pest—a nuisance—she would shake and tremble at the sight of him. I did everything I could to try to find out why. I gave every association test that I knew. Why did she hate poor little Bobby? He's just an

ordinary kid. What could I do about it? Nothing. She had complete repression. In 10 seconds' time I found out by the same process I had used earlier. I had her look in a crystal, and I said to her, "Somehow or other Bobby's in that crystal over there . . ."

"Oh, no! Bobby isn't in that crystal!"

"Now, why should Bobby be connected with that crystal in any way?"

She told me that what I was saying to her didn't seem to make sense. I said, "No, but it's your job to make sense out of it. So let's put Bobby out of it and put the sense in."

In 10 seconds' time she recalled that in the early 1940s her husband had brought home a girl and announced that this girl was his mistress and that she would have to wait on this girl. There weren't to be any ifs, ands, or buts about it; and he slapped her down. The girl demanded a cup of tea, just to show her power. My patient said, "But the baby's just started crying." (That was the first I knew about that.) Her husband slapped her down again, and she got the cup of tea for the mistress. She then went in to the baby.

The autopsy reported that the baby had strangled to death on a ribbon in his nightie.

Another patient who had been suffering from asthma came to my office and told me she couldn't understand why she had asthma or why she had it only at certain times. I said, "Well, we'll try to diagnose it in this interview."

She said, "You must have a pretty good opinion of yourself."

I said, "All right. It's now two o'clock. At 2:36, by that clock there, you will have an attack of asthma."

She looked at me as though she thought I ought to have my head examined. We chatted on and on very casually about various things, including her childhood. At 2:36 she had an attack of asthma. Why? I guided that conversation very carefully. It seemed to be just an ordinary social conversation, but actually I kept loading it progressively, and at 2:36 I asked her how often her father wrote her letters? As soon as I mentioned her father's letters, she developed an attack of asthma. I had already learned in her previous history that her father never wrote her during the summertime, but always wrote her in the fall, the winter, and the spring. What had her father done to her? Her father had really mistreated her mother in a most outrageous fashion. The mother had left her share of the property to the daughter out of that property. Moreover, the father had written a lot of very disagreeable letters to his daughter every fall, winter, and spring. I was quite safe when I said 2:36, because I knew I could mention her father's letters at 2:36 and that she would get an attack of asthma. I felt sure of this because in her previous history taking I had had her describe when the attacks of asthma came on, where she was sitting, whether by this window or that window, and what she had happened to be doing. The mailman intruded into that situation too many times. Therefore, I wondered about the letters. Yet she had told me about her father not being fair, about his being unjust to her mother and

unjust to her; but that wasn't sufficient knowledge. I had to mention the specific item—the father's letters.

She hasn't had any asthma since we discussed her father's letters, and I helped her compose a few replies to her father. I think that perhaps I may have done some psychiatrist in that state a favor by giving him a patient.

One of the psychosomatic problems that I want to mention now concerns the matter of stuttering that so often constitutes a serious problem. In every psychiatric case you have to take the individual personality into consideration if you're going to handle stuttering. The psychotherapeutic approach and the hypnotic approach, in my experience, are most effective if you recognize one general factor. Stuttering is a form of aggression against society and people in general. You know the old joke about the great big man who asked the small-sized man how he could get to the Union Station in Chicago, and the small-sized man looked at him blankly and didn't answer. The large man went on and asked someone else. Someone went over to the small-sized man and said to him, "Why didn't you tell that chap how to get to the Union Station?" The small-sized man said, "D-d-did you th-i-nk I wanted to get my b-b-bl-o-o-ock knocked off?"

Stuttering is a form of aggression. Why should the patient aggress in a way that is uncomfortable to the patient? I had a patient, a physician, who had stuttered all of his life. When he came to me as a patient, I told him very frankly that his stuttering was an aggression and that I would be very glad to take care of it, if he were willing. I stated also that it would not be a pleasant sort of thing. He asked me if I thought stammering or stuttering were very pleasant things. I put him in a trance and worked quite a while with him on the subject of how he felt about speech and how he felt about people in general. I then built up a negative attitude and aggression toward me, which serves the purpose of allowing the patient to vent his aggression on me individually.

As a result the doctor is in a difficult situation. He speaks clearly and lucidly, has no stammer or stutter. He never fails to send me a Christmas card, but he always writes: "I hate your guts and I'm going to keep right on." Nevertheless, he sends me a Christmas card, and he sends Christmas presents to my children, but he always has a nasty crack for me. When we meet, we laugh and talk and exchange stories. The one I just told about the big man and the little man I've told him, and we've both laughed about it; he thinks it's funny. "But," he has told me, "it seems to me I've got a need for a lifelong hatred of something—I don't know what it is. You're convenient, and you're a nice guy to hate."

I said, "That's right, and it's solved your stammering problem."

Another one of my patients decided that he would get psychoanalyzed. He spent five years in the process to find out what had caused his original stammer. After five years he said, "You know, I've learned a lot about psychoanalysis and the treatment of patients by psychotherapy, but actually, you corrected my stammer. You gave me a certain hatred that was very, very useful, and my psychoanalyst tried to take it away from me.

The hatred I gave him was that trees should not be less than 18 inches from the sidewalk. I thought that was a fairly harmless hatred. He didn't have to do anything about it. He could ignore it, it shouldn't cause him any kind of distress; but at the same time he could really hate it.

"My psychoanalyst," he went on, "tried to take that away from me. He almost succeeded, and then I started to stammer. I decided I was going to keep right on. That hatred was some sort of crutch that I was really using."

He still doesn't stutter. What did I do? I don't know. It was an experimental case, and he came to me on that basis.

There is still another instance that I would like to cite. Chester Garvey came to Worcester, where I was working, and said that he had seen Hull induce hypnosis but didn't quite believe it. Would I please demonstrate hypnosis for him? He was rather antagonistic and hostile toward the idea of hypnosis.

I called in Art and Hulda, who were psychologists working for their Ph.D.s and who were good hypnotic subjects. I explained Dr. Garvey's desire and his disbelief in hypnosis. I asked them if they believed in it. They said they certainly did. I then said, "I've got to go downstairs and do an experiment on the ergograph. So I'm going to hypnotize you, Art, so that hypnosis can really be demonstrated."

Art said, "Okay," and went into a very nice trance, and I promptly left. I wondered what would happen as I left Garvey there with those two Ph.D. candidates. Garvey walked over to Art in the trance state, because Art was in a somnambulistic state, and Art said, "Well, Dr. Erickson has left, and you wanted a demonstration of hypnosis. Both Hulda and I are good subjects. Suppose I put Hulda into a trance." Hulda, assuming that she was going to demonstrate Art, found herself going into a trance! This was a very confusing thing for Garvey. Art put Hulda into a trance and demonstrated a great variety of hypnotic phenomena.

When I came back from the ergograph experiment, I walked into the room and spoke to Art. He said, "I think we're through demonstrating hypnosis." I turned to Hulda to speak to her and realized that she was in a trance state. So I said, "How do you mean?" Art replied, "Well, I put Hulda in a trance to demonstrate to Dr. Garvey what hypnosis is."

I thought that I would add a little more confusion to the situation. I awakened Art. He was still in rapport with Hulda, but I was not in rapport with Hulda. I had him awaken Hulda, and I asked him if she would demonstrate hypnosis to Dr. Garvey. She, not knowing that time had elapsed, proceeded to try with Art in the waking state to demonstrate catalepsy and a few other phenomena. Art kept telling her, "But I'm awake!" Hulda insisted, "No, you're not. I saw Dr. Erickson put you in a trance, and I know you're in a trance."

Of course, that settled it for Garvey. He didn't expect it, I didn't expect it, and it certainly is in contradiction to White's theories of goal-directed behavior, no matter what qualifications you put upon it.

What bearing does that have upon therapeutic approaches? It has a bearing on indirectness of approach. Art was thoroughly appreciative of the fact that Garvey was hostile and antagonistic and resentful. Consequently, he contrived a situation that would overcome it in a way that Garvey could not possibly resist. I use that approach therapeutically quite often. I have an Arizona State College student that I have used a number of times. A patient will come into my office, sit down, and say, "Well, I'm here. What are you going to do about it?" Frankly, I can't do a thing about it because of his attitude. Yet such patients honestly want therapy, but they are antagonistic and resentful. It is very easy to chat with them socially for a while, then bring in a student that they might like to meet and have the student put them in a trance for me. They have no resistance toward the student; it's all channeled and directed toward me. Resistance should be channeled toward the therapist. The student puts them in a trance and then I supplant the student.

Sometimes I have to put the student in a trance first, just to demonstrate that I do know how to produce hypnosis. The patient watches and says, "Well, there's no question about it. You can hypnotize that person." The patient has no resistance against a hypnotized person hypnotizing him. It is a very simple, easy method of overcoming some of the tremendous resistance that psychiatrists meet over and over again.

Yesterday I mentioned a color-blind girl and her reaction to the fact that somehow I had changed her dress on her, and what explanation could I give for that. She was entitled to ask a question like that. I've had that happen more than once, when I've changed a situation. What excuse did I have for taking her out of my office and taking her into her own bedroom? Physically she was still in my office; psychologically she was in her bedroom, and what business did I have there? There is a tremendous need for protecting patients in ordinary psychotherapy. How often is the resistance the result of the therapist's intruding upon intimate memories, intimate ideas? This accounts for a great deal of resistance, and in hypnotherapy one can reach that sort of situation by stating to the patients very definitely your intention to protect them. Patients should understand that, and you should not overlook the possibility that you can unwittingly intrude upon the legitimate privacy of a patient.

There are certain frightened reactions that patients show. I remember getting in trouble with an adult male whose legs I had anesthetized to test for the knee-jerk. He showed an excellent anesthesia; but he decided to shift in his chair, and as every anesthetist knows, with a spinal block you don't move your legs around very much, depending, of course, upon the level of the block. In hypnotic anesthesia, where is the level of the block? In hypnotic anesthesia, you get a motor block also. The patient isn't aware of that. This patient of mine discovered that he couldn't walk, and he was infuriated. I had no business paralyzing him! You'll find, in producing catalepsy in a patient, that he can resent that with tremendous force. Usually, when I find that sort of thing, I use it as a center for

localizing hostility, resentments, antagonism, and aggression. It's a convenient one that the patient has picked out for me, rather than making it necessary for me to produce it.

I was asked yesterday by someone about the problem of phantom limbs. "How do you handle that in hypnotherapy?" A friend of mine who had suffered an amputation had a discussion with me one night. He was also a psychiatrist and psychologist. He had written out his ideas, and he started quizzing me on the subject because he had experienced a great deal of difficulty with his phantom limb. We both had worked out essentially the same method. I suppose you would call it reconditioning.

I will give an illustration. The amputation is here on the arm—the index and second fingers get crossed, you can't straighten them out, and they are painfully tired. How are you going to approach that sort of thing hypnotically? The thing I do is to put the subject in a trance, try to reorient to a time previous to the amputation, which is a very difficult thing. He has only got one arm, and he can't balance his body properly. You reorient, however, certain memories, then you raise this question of crossed fingers. "Now, where do you feel that? Do you feel pressure here, or do you feel it in the joint? Or perhaps your wrist gets tired?" I am speeding up the procedure; but you discuss such matters, and you slowly move up the locus of the feeling to the stump. Get the patients to understand the progressive upward movement, so that they can't be certain it's their fingers, or just exactly where it is.

A patient came to me with very serious neurotic complaints of heart pains. Most medical practitioners will explain to you that you don't get heart pain in the chest wall. But this man knew that he got heart pains in the chest wall, and I became very much interested. Was it on the left side of the sternum, in the middle of the sternum, the right side? Was it between this rib and that rib? I slowly had that pain migrate to his shoulder and migrate down his arm. As it migrated, the pain decreased more and more until it finally vanished.

That isn't the end of the problem, however; because the question is, why does he have heart pains? As long as that chap had heart pains, that is what he talked about. I didn't want to hear about those heart pains; I wanted to hear about some of the reasons why he had heart pain, and I didn't want him wasting his hours describing that pain endlessly, repetitiously, and in tremendous detail. We erased the pain so that we could get down to brass tacks. How did he feel about this person, that person? How did he feel about himself? What was his attitude? The removal of symptoms with which the patient was preoccupied enabled the patient to enter into the causality of the symptoms.

## Clinical Note on Indirect Hypnotic Therapy

Milton H. Erickson

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A young couple in their early twenties, much in love and married for a year and close friends of several of the writer's medical students at the time, sought psychiatric help. Their problem was one in common—lifelong enuresis. During their 15-month courtship neither had had the courage to tell the other about the habitual enuresis.

Their wedding night had been marked, after consummation of the marriage, by a feeling of horrible dread and then resigned desperation, followed by sleep. The next morning each was silently and profoundly grateful to the other for the unbelievable forbearance shown in making no comment about the wet bed.

This same silent ignoring of the wet bed continued to be manifested each morning for over nine months. The effect was an ever-increasing feeling of love and regard for each other because of the sympathetic silence shown.

Then one morning, neither could remember who made the remark, the comment was made that they really ought to have a baby to sleep with them so that it could be blamed for the wet bed. This led at once to the astonishing discovery for each that the other was enuretic and that each had felt solely responsible. While they were greatly relieved by this discovery, the enuresis persisted.

After a few months discreet inquiry of the medical students by the couple disclosed that the writer was a psychiatrist and a hypnotist and probably knew something about enuresis. Accordingly, they sought an appointment, expressed an unwillingness to be hypnotized and an incapacity to meet the financial obligations of therapy, but earnestly asked if they could be given help.

They were informed that they would be accepted as patients on a purely experimental basis and that their obligation would be either to benefit or to assume full financial responsibility for the time given them. To this they agreed. (This reversal of "cure me or I won't pay" is often most effective in experimental therapy.)

They were then told that the absolute requisite for therapeutic benefits would lie in their unquestioning and unfailing obedience to the instructions given to them. This they promised. The experimental therapeutic procedure was outlined to them, to their amazement and horror, in the following fashion:

You are both very religious, and you have both given me a promise you will keep.

You have a transportation problem that makes it difficult to see me regularly for therapy.

Your financial situation makes it practically impossible for you to see me frequently.

You are to receive experimental therapy, and you are obligated absolutely either to benefit or to pay me whatever fee I deem reasonable. Should you benefit, the success of my therapy will be my return for my effort and your gain. Should you not benefit, all I will receive for my effort is a fee, and that will be a double loss to you but no more than an informative disappointment to me.

This is what you are to do: Each evening you are to take fluids freely. Two hours before you go to bed, lock the bathroom door after drinking a glass of water. At bedtime get into your pajamas and then kneel side by side on the bed, facing your pillows, and deliberately, intentionally, and jointly wet the bed. This may be hard to do, but you must do it. Then lie down and go to sleep, knowing full well that the wetting of the bed is over and done with for the night, that nothing can really make it noticeably wetter.

Do this every night, no matter how much you hate it—you have promised, though you did not know what the promise entailed, but you are obligated. Do it every night for two weeks—that is, until Sunday the seventeenth. On Sunday night you may take a rest from this task. You may that night lie down and go to sleep in a dry bed.

On Monday morning, the eighteenth, you will arise, throw back the covers, and look at the bed. *Only as you see a wet bed, then and only then* will you realize that there will be before you another three weeks of kneeling and wetting the bed.

You have your instructions. There is to be no discussion and no debating between you about this, just silence. There is to be only obedience, and you *know and will know what to do*. I will see you again in five weeks' time. You will then give me a full and amazing account. Goodbye!

Five weeks later they entered the office, amused, chagrined, embarrassed, greatly pleased, but puzzled and uncertain about the writer's possible attitude and intentions.

They had been most obedient. The first night had been one of torture. They had to kneel for over an hour before they could urinate. Succeeding nights were desperately dreaded. Each night they looked forward with an increasing intensity of desire to lie down and sleep in a dry bed on Sunday the seventeenth. On the morning of Monday the eighteenth, they awakened at the alarm and were amazed to find the bed still dry. Both started to speak and immediately remembered the admonition of silence.

That night, in their pajamas, they looked at the bed, at each other, started to speak, but again remembered the instructions about silence. Impulsively they "sneaked" into bed, turned off the reading light, wondering why they had not deliberately wet the bed but at

the same time enjoying the comfort of a dry bed. On Tuesday morning the bed was again dry, and that night and thereafter Monday night's behavior had been repeated.

Having completed their report, they waited uncertainly for the writer's comments. They were immediately reminded that they had been told that they would give an "amazing account" in five weeks' time. Now they knew that they had, and that the writer was tremendously pleased, *and would continue to be pleased*, so what more could be asked?

After some minutes of carefully guided, desultory conversation they were dismissed with the apparently irrelevant statement that the next month was May.

About the middle of May they dropped in "spontaneously" to greet the writer and to report "incidentally" that everything was fine. A year later they introduced the writer to their infant son, amusedly stating that once more they could have a wet bed but only when they wished, and it would be just "a cute little spot." Hesitantly they asked if the writer had employed hypnosis on them. They were answered with the statement that their own honesty and sincerity in doing what was necessary to help themselves entitled them to full credit for what had been accomplished.

## **COMMENT**

To understand this case report it might be well to keep in mind the small child's frequent demonstration of the right to self-determination. For example, the child rebelling against the afternoon nap fights sleep vigorously despite fatigue and will repeatedly get out of the crib. If each time the child is gently placed back in the crib, it will often suddenly demonstrate its rights by climbing out and immediately climbing back and falling asleep comfortably.

Concerning the evasive reply given to the patients about the use of hypnosis, by which they were compelled to assume fully their own responsibilities, the fact remains that the entire procedure was based upon an indirect use of hypnosis. The instructions were so worded as to compel without demanding the intent attention of the unconscious. The calculated vagueness of some of the instructions forced their unconscious minds to assume responsibility for their behavior. Consciously they could only wonder about their inexplicable situations, while they responded to it with corrective, unconscious reactions. Paradoxically speaking, they were compelled by the nature of the instructions and the manner in which these were given to make a "free, spontaneous choice" of behavior and to act upon it in the right way without knowing that they had done so.

Favoring the therapeutic result was the prestige of the writer as a psychiatrist and a hypnotist well spoken of by their friends, the medical students. This undoubtedly rendered them unusually ready to accept indirect, hypnotic suggestion.

The rationale of the therapy may be stated briefly. Both patients had a distressing, lifelong pattern of wetting the bed every night. For nine long months both suffered

intensely from an obvious but unacknowledged guilt. For another three months they found their situation still unchanged.

Under therapy, during a subjectively never-ending two weeks, by their own actions they acquired a lifetime supply of wet beds. Each wet bed compelled them to want desperately to lie down and sleep in a dry bed.

When that opportunity came, they utilized it fully. Then, the next evening, understanding unconsciously but not consciously the instructions given them, they used their bed-wetting guilt to “sneak” into and enjoy a dry bed, a guilty pleasure they continued to enjoy for three weeks.

The uncertainty, doubt, and guilt over their behavior vanished upon discovery at the second interview that they had really been obedient by being able to give the “full and amazing account.” Yet, unnoticeably to them, the therapist’s influence was vaguely but effectively continued by the seemingly irrelevant mention of the month of May.

Their final step was then to bring into reality a completely satisfactory solution of their own devising, a baby, the solution they had mentioned and which mention had led to an open acknowledgment of enuresis to each other. Then, at a symbolic level, they dismissed the writer as therapist by introducing him to the infant, who in turn represented a happy and controllable solution to their problem. This they almost literally verbalized directly by their amused comment about having a wet bed any time they wished and that it would be only a pleasing thing of adult and parental significance.

# **The Hypnotic and Hypnotherapeutic Investigation and Determination of Symptom Function**

Milton H. Erickson and Harold Rosen

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With some emotionally sick patients symptom-function can be determined rapidly under hypnosis, in a therapeutic setting.

Symptoms and even syndromes, when emotionally based, may subserve the repetitive enactment of traumatic events; may reproduce, instead, specific life situations; may satisfy repressed erotic and aggressive impulses; or may at one and the same time constitute defenses against, and punishment for, underlying instinctual drives (Weisman, 1952). They may mask schizophrenic reactions or hold suicidal depressions in check (Rosen, 1953). They may serve all these functions concurrently, or none of these, or any specific one or combination of them.

Patients, it should be stressed, see psychiatrists because they have symptoms which cause them trouble. They frequently insist on symptomatic relief. This sometimes is possible: transference cures not infrequently may be effected; environmental manipulation may occasionally be sufficient; defenses may be strengthened; or, with selected patients, symptom site may be transferred (Erickson, 1954), or less incapacitating symptoms substituted for those which otherwise would invalid or hospitalize them. Such symptom substitution, however, can best be achieved if at least a few of the functions served by specific complaint symptoms are known. Once these are determined, the attempt can then be made, with better chance of success, to substitute under hypnosis less incapacitating symptoms which nevertheless serve the same underlying neurotic or even psychotic needs.

However, there are patients with whom this would be impossible. Some may occasionally, nevertheless, be helped—and helped rapidly. They see psychiatrists in the hope, not of ridding themselves of symptoms, but of imbedding them. This is a therapeutic possibility. Symptoms can be narrowed down. A 59-year-old railroad worker [patient of M.H.E.] for example, after a fall one year before he was eligible for pension, developed a hysterical paralysis of one arm. He was willing to accept seven days' hospitalization, but seemed grimly determined to retain his paralysis. The psychiatrist spent the first five of these seven days with another physician, "thoughtlessly" discussing

the hopelessness of his case, examining and reexamining the patient while he was in a trance, and debating whether or not a specific syndrome was present. If so, he would wind up, they agreed, with a hopelessly paralyzed wrist but with free finger, elbow, and shoulder movement. On the sixth day these came back. Internist and psychiatrist both mourned his stiff wrist! The patient had his symptom. He became actually proud of his stiff wrist. He had all the trouble he wanted with it, and all the narcissistic gratification he desired from it, but he was now able to work, and he and his wife received their pension (Erickson, 1954).

Symptom restriction of this type constitutes an exceedingly important adjuvant hypnotherapeutic technique, significant enough to warrant detailed consideration. In this paper, however, we propose to limit ourselves, for the most part, to a discussion of our clinical experience in the investigation and evaluation of symptom-function, with various of the newer and more radical hypnotherapeutic techniques now under investigation. Dissociative states may be induced, for instance, or dream acting-out suggested; attacks may be precipitated and then blocked, either by direct hypnotic suggestion or by regressing patients to a period predating the onset of their disease, so that substitutive motor, vegetative, or other activity is precipitated out in a form accessible to therapeutic investigation; attacks may be precipitated in slow motion, so that individual components can be investigated therapeutically in detail; symptoms may be suggested away, while emotions back of symptoms are concurrently intensified, so that, again, underlying dynamic material will immediately become accessible for therapy; or still other techniques may be utilized (Rosen, 1953).

To illustrate [patients of H.R.] a hypnotically precipitated attack in slow motion, a patient with what for years had been diagnosed as epilepsy began making, as part of her supposed epileptic symptomatology, forced sucking movements with her lips as she acted out the fantasy of trying to suck on—and to bite into—her mother's nipple. In another patient with what was originally diagnosed as psychomotor epilepsy, an attack was hypnotically induced and then deliberately blocked by direct hypnotic suggestion; at this she was intensely aroused sexually, begging her impotent husband, whom she hallucinated as present and whose flaccid penis she was digitally trying to stimulate, to attempt intercourse with her more than once every three weeks. A patient with pruritus insisted that it was her itch, and her itch alone, which was responsible for her tension, her inability to sleep, and her general irritability. Once hypnotized, she was told that, if she really wished it to, her itch could disappear but that whatever it stood for, no matter what, would become so strong, so unbearably strong, that she would be unable to contain it any longer. She began shouting: "Don't let me dig her out! Don't let me dig her out!" And at this, although her itch had disappeared, she began digging her nails into her skin. Early aggressive and traumatic material, with specific reference to her mother, was then spontaneously abreacted. Her pruritus, among the various functions which it served, satisfied hostile and aggressive impulses on one level against her husband and, on another, against her mother. It served also to mask her underlying depression and to hold it in check.

At times a much more indirect approach than this seems indicated. A second patient with pruritus vulvate, [patient of M.H.E.] who had previously been treated by various allergists and dermatologists, was unwilling, so she stated, to be hypnotized if the psychiatrist was curious about her problem: it would, rather, be a question of her conscious strength of character to tell it. It was therefore suggested that she could go into a trance and while in it do something, no matter what, that she would have no hesitation letting the psychiatrist know about. She agreed, hallucinated playing tennis, became "hot and sweaty," and explained that she felt like taking a bath. She was told that, since she was a big girl, the psychiatrist could not let her really take one, but that, if she were a little girl in a big tub, she could. It was added that perhaps a bath by proxy might be even more satisfactory. So she watched and, because the psychiatrist was not wearing his glasses, described seeing a little girl bathing, playing with her genitals, being horribly punished by her mother, and then being forced to scrub the ring off the tub.

During the next session she stated without being hypnotized that she had a silly thing to tell: she had taken a bath the night before and washed the ring off the tub, and she knew that in telling him this the psychiatrist would undoubtedly understand something, although she did not know what it was.

Our approach may at times be, at first, direct and, later, indirect. One patient, [patient of H.R.] for instance, was a rather depressed 28-year-old truck assembler with spasmodic torticollis of almost six months' duration, who finally began drawing unemployment compensation because his wry neck had made it impossible for him to continue paying the close, detailed attention to his work which was demanded of him. Despite long-continued traction his neck would twist immediately to the extreme left once this traction was discontinued.

During the anamnesis some of the defensive aspects of his symptom were hinted at. He had always been shy and embarrassed, had always been afraid of girls, had seldom had a date, and had never had intercourse. But one of his fellow workers had promised to "fix him up" with a girl, once he purchased a car with the \$2,000 he had saved. "He said she's a sucker for a guy on a ride," he explained, "And he gave me a rubber. I've still got it. See! And I was just going to buy it [the automobile] when my neck started like this. So I'll have to wait till it's better now. I can't drive this way . . ."

"And for two years" before the torticollis started, "my hands'd shake, and I'd tremble. And sometimes my head would too, just like my hands when I'm nervous. That's because I'm so tight inside. I can't relax at all."

He was hypnotized under the pretext of testing his ability to relax. As long as his head remained twisted to the extreme left, he appeared placid, calm, and even serene. But when, on direct verbal suggestion, his head reverted to the midline, his right hand seized his penis through his clothes, and he began to masturbate. When given permission for his head to revert to the extreme left, he again became the same motionless, placid, and apparently serene individual. At the suggestion, "Your head can remain unturned," his masturbatory activity resumed. "You can, you know," so he was then told, "remain

motionless, if you wish, while your head is unturned." At this, his hands fell to his sides and he again became motionless, but this time all the physiological concomitants of acute anxiety appeared. He began perspiring profusely, seemed drenched in perspiration, and became visibly tremulous.

Since it was not thought that at this point he could tolerate the anxiety attendant upon realizing what at least one of the functions served by his torticollis was, amnesia for this particular part of the hypnotic session was suggested, *provided he would rather not remember it*. Symptom substitution seemed possible. He could, for instance, have been allowed to squeeze a hallucinated rubber balloon and, later, to hallucinate watching someone else doing this. Instead, as a temporary expedient on his new job, he found it possible to hold an oversized pencil rigidly against the steering wheel as he drove a truck.

It should be emphasized that while he hinted during the anamnesis at some of the defensive and perhaps adaptive aspects of his symptom, these did not appear during the hypnotic investigation. Instead, perhaps as a result of the specific hypnotic techniques utilized, one symptom function—that of substitutive satisfaction for autoerotic activity—became obvious. Ferenczi (1950), it will be remembered, believes that tics constitute masturbatory equivalents. This patient's torticollis can under no circumstances be considered a tic, but nevertheless, because of his behavior during the hypnotic investigation, Ferenczi's discussion immediately comes to mind. So does that of Melanie Klein (1948), whose 13-year-old Felix's tic had appeared when homosexual and masturbatory impulses were repressed. However, it should be remembered that with our patient this material came to light specifically as a result of whatever was going on between him and the therapist within, rather than because of, the hypnotic interpersonal relationship. If other hypnotic techniques had been utilized, or if the investigation had proceeded in some other way, the results obtained might in all probability have been different.

One of our patients was a miner's wife [patient of M.R.] in her mid-thirties who was hospitalized for further gynecologic study after having had a hysterectomy three years previously. The abdominal pain of which she still complained and for which she had wished further surgery was thought by her present surgeon to be on an emotional basis. Because of her 20-year history of "nervous spells," a psychiatric consultation was requested.

These "spells" turned out to be, for the most part, anxiety attacks. She would feel as though she were trembling inside; become "horribly frightened" and convinced that she had heart disease; wake screaming from nightmares in which she would see her father in a casket or her husband and son killed; and frequently sigh without knowing why. She was not articulate, gave practically no meaningful details about her developmental history, and characterized herself as a fairly happy, well-adjusted, and socially not incapacitated person, with everything she really wished for. She was able to talk spontaneously only about her "spells," but no additional factual information was elicited about them. X-rays had previously shown a nonfunctioning gallbladder with stones, and a cholecystectomy had been recommended. She knew that the operation was necessary. In

addition, she wished treatment so as not to feel compelled to toss and squirm half the night through, night after night, before falling asleep.

It was suggested that she concentrate on this trembling inside herself of which she complained so much. However, so it was added, with every breath she drew, with every second that passed, she would grow more and more relaxed, more and more relaxed, so relaxed, so completely relaxed that, if she wished, she could fall asleep. "With some patients," the therapist added, "this takes two or three minutes—and with some, much more. Just breathe on, just breathe on, thinking only of this trembling inside you; breathing deeply and gently, deeply and gently, deeply and gently." No other suggestion was made. Lid-paralysis was not suggested. This was repeated over and over again, and the cadence of the hypnotist's statements was timed to her respiratory rhythm. Within four minutes her eyes had closed. She looked as though she were sound asleep.

The therapist began to speak in a low, relaxed tone. "You've had a number of symptoms, Mrs. G," he stated. "You've come here with female trouble, and with what seems to be a bad gall bladder, and with what you think is heart disease. Think only of these symptoms, of nothing but these symptoms. . . . Begin feeling them now. . . . There's something that's common to them all. There's something that's common to them all. Try to feel it. Try to feel it. Feel it, *FEEL IT*, feel it more and more intensely, more and more intensely, until you feel it so strongly that you know it for what it is. This symptom of yours, this main symptom of yours, is getting stronger and stronger now, stronger and stronger, stronger and stronger still. Feel it, *FEEL IT, FEEL IT now.*"

At this she began to tremble. "I'm shaking and I'm trembling" she almost stuttered, but in a low voice, "I don't know why. And that's how I feel all the time." Tears began to flow silently from her eyes. There was no audible sobbing on her part.

"If you'd like to stop trembling now," the therapist stated, "you can. Your symptom will disappear, if you really wish it to, but whatever it stands for, whatever is back of it, whatever it covers up, whatever it's really about, will come to the surface right now. You're strong enough to face it, whatever it is. If you really wish it—it's up to you to decide—your symptom will disappear, but whatever emotion it covers, whatever it's really about, will come to the surface now. You'll know it for what it really is. As I count to three, if you really wish to, if you really wish to know, if you really wish to get treated for it, your symptom will disappear, but whatever it covers up, whatever it stands for, will come to the surface—and we'll see it, we'll see it for what it really is."

At this she was 10 years of age, extremely frightened, nauseated, afraid she was bleeding to death, not realizing that her periods were starting or what they were. A moment later, she was spontaneously abreacting a rape, extremely frightened again, nauseated, and, again, afraid that she was bleeding to death. It was "this same sensation," so she later explained, that she invariably felt not only on intercourse but also whenever her husband seemed to be growing "tender" toward her.

It should be noted that her anxiety manifested itself when it was hypnotically suggested that she concentrate on whatever was common to her cardiac, digestive, and urogenital symptoms. When her underlying emotion of the moment was then hypnotically intensified, it gave rise to the enactment of what emotionally to her was the same repetitive traumatic event. Much more than this was involved, however.

Other factors and other problems will become apparent from even a cursory study of that part of her case protocol which has been abstracted. We feel that in the hypnotic interpersonal relationship, full-blown transference phenomena may develop rapidly, at times within hours or even minutes (Fisher, 1953; Gill, unpublished article; MacAlpine, 1950, Nunberg, 1951). This will be developed in detail in another paper now under consideration. When this patient, however, was told, "Feel it, *feel it*, FEEL IT, more and more intensely," we were obviously on a "fishing expedition," working in the dark, not knowing what was involved, and hoping that something meaningful, no matter what, that could be utilized, would be stirred up. This technique can be exceedingly effective with some patients. Others may be told that, in addition to feeling "it" more and more intensely, they will be interested and curious about knowing what "it" is, but they will not know this until at a time and in a place, no matter when or where, that they wish to and which will be most helpful, therapeutically, to them. One patient, [patient of M.H.E.] for example, stated that she could not tell us, either in the trance state or on a conscious level, what her trouble was. The history which she gave seemed barren of any lead. She was therefore told, while in a trance, that whatever her problem was, she would feel it with increasing intensity, but only at what for her would be both the right time and the right place. This was repeated during half a dozen trance sessions, after which she stated, "I have something utterly silly to tell you. I do my own washing. But my living expenses have been terrible because I never wear a pair of panties more than once. I always take them off in the dark and throw them in the trash can. I never look at them again. The other day I felt the need for a bowel movement, and I felt it very strongly."

"I was in the bathroom at the time. While I was sitting on the toilet, I suddenly realized that I used the bathroom very little. Since childhood I have been soiling my pants and hiding it from myself, and that is silly. Now I can feel it in the right place at the right time, and I wonder what I will do with the three or four dozen pairs of panties I have in stock." It later developed that she took from one to three baths each day. This had always been a nuisance to her. Her bath compulsion has now disappeared.

Even when the psychiatrist goes on such "fishing expeditions" in the dark, if his words be well planned and carefully chosen, his patients will understand and relate their meaning specifically to their own problems. It is not necessary to know what it is that the patient knows. Somewhere in the patient's unconscious there is understanding, just as there is under-standing of—and at the same time resistance to the recognition of—the meaning of even the most anxiety-ridden dream. The therapist's permissive attitude, of being willing to let his patient know but without himself knowing until and unless the patient is ready and wishes him to, serves to make it possible for some patients to place whatever meaning to their symptoms seems to them at the time therapeutically necessary. However, it is of prime importance for the therapist to make it clear, somehow, to the

patient that the right, the correct, the concrete, the specific meaning, applicable at that particular time, be placed on his generalities.

If this be done, the psychiatrist does not fall into the trap, so frequently set—and not only by patients poorly motivated for treatment—of trying to do too much for the patient too quickly. The patient can be relied upon to fit the jigsaw puzzle together and, in point of fact, should have joint responsibility with the therapist for doing so.

Occasionally, when specific investigatory procedures are decided upon, the adaptive aspects of the patient's symptom or symptoms may be emphasized. Or their defensive functions may become apparent. Disguised acting-out frequently takes place. With the unmasking of symptoms, the basic conflict or even personality structure may at times be apparent. This is especially true of those patients whose neurotic symptoms make it possible for them to keep their underlying psychosis in check so that, as a result, they are enabled to continue making, at least at times, a not too inadequate social adjustment.

To illustrate:

One of our patients with torticollis [patient of H.R] could not meaningfully be investigated by any of the techniques so far described. During the consultation session he answered questions almost monosyllabically. He made no spontaneous comments.

According to his referring psychiatrist, he had been inaccessible to therapy because of the narcissistic gratification which he gained from his apparent organic disease. Since he had been referred specifically for investigation and, if indicated, for treatment under hypnosis, he was hypnotized by an eye-fixation method. Direct suggestion to the effect that, if he wished, his neck could—it will be noticed that the word "*would*" was not used—revert to the midline, was ineffective. At this he stated that he felt "disappointed, frustrated, hopeless," and with nothing any more that he really wished to do.

"That seems to be your feeling here," the therapist agreed, "frustrated and hopeless. And yet, there must have been a time when there was something you really wished to do—and enjoyed doing. As I count from one to ten, you'll pass back through time, back through time, to that other time when there was something you really wished to do—and enjoyed doing. One—back through time, back through time, to that other time when there was something you wanted to do, something you very much wanted to do—and enjoyed doing. Two—back through time, back through time, to that other time when there was something you very much wanted to do, something you exerted your every energy to do—and enjoyed doing. Three—" etc. The suggestion was reinforced in various ways until the count of ten had been reached.

At this he rose from the chair, strode to the middle of the room, nodded to left and right, smiled, lifted his right hand, and made an impassioned plea for blood donors to the local Red Cross. This, as it developed, was an actual speech which he had made five years previously. It was, in fact, rather good. It lasted about 15 minutes. During this, his head turned at times toward both the right and the left. It frequently was in the midline. After he had finished, he seated himself, smiling, pleased, obviously enjoying the applause. His

head remained in the midline. He was then hypnotically progressed through time (with the one suggestion, however, that his head remain in its present position), at first year by year, then month by month and finally week by week, into the present. His head stayed in the midline, not fixedly but naturally so, without obvious effort on his part.

After he had been hypnotically returned to the present, he remained silent for about five minutes. The therapist remained silent also. He then began whispering, "That c.s. bastard's been telling everybody I'm a c.s. I'd like to kill him. But he's pushed invisible wires into me. So if I do, I'll turn into a c.s. myself. But if *you'll* suck him off, they'll melt away—and I'll be free to kill him. Won't you? Please!"

So long as his neck remained in the midline, he was clinically paranoid and psychotic. His productions remained on this level. When, however, on direct hypnotic suggestion his neck again twisted to the extreme left, this paranoid material was no longer evident and he became amnestic for it, even though he was still hypnotized and no suggestion to this effect had been made.

Although his torticollis made it impossible for him to continue practicing his profession, it seemed inadvisable at this particular time to attempt to deprive him of his symptom, since it appeared probable that, if this were done, he would develop in its stead a clinically paranoid psychosis for which institutionalization might be mandatory. This patient, incidentally, after leaving Baltimore saw a surgeon who "cured" his torticollis by operating on him. According to Garnett and Elberlik (1954), who have seen and followed this patient, he did not become psychotic, as we could have expected, although he no longer, at least at first, was able to take recourse in this wry neck of his. The symptom, incidentally, was reprecipitated a few months later. An attempt will be made to get a meaningful follow-up on the type of adjustment which he later on finds it possible to make.

Whether with a patient like this it might, in the last analysis, be most helpful to rob him hypnotically of his defenses so that he could be treated, if he could effectively be so treated, by the type of technique developed by John Rosen (1953), is something about which, without such a follow-up, we at this stage of our research are not qualified even to hazard a guess, nor did we feel it indicated to make the necessary investigation at the time we saw him. The danger to this patient in circumventing symptom-formation by acting-out seemed much too great. What his surgical "cure" involved, and what it had meant to him in fantasy, can only be surmised.

With another type of patient, however, and especially with the patient whose drug addiction is on a schizophrenically depressive, potentially suicidal basis, we think that research in this particular direction may well be warranted, since the symptom of drug addiction may be much worse in its effect than the disease process which it masks and perhaps holds in check, and since with its removal the underlying disease process itself may become accessible to treatment. We feel, at least, that this warrants investigation.

It would seem impossible to overemphasize those dangers which potentially could be involved in the use of investigatory techniques like these. If they are utilized, the patient with a "neurotic schizophrenic" reaction must be given enough concurrent support to abort or, rather, to prevent a clinically psychotic shattering of his ego. And for patients with organic or so-called psychosomatic disease, it seems necessary to proceed at an exceedingly slow and cautious pace: the possibility of precipitating a psychotic episode at times is so pronounced, even if insistence be only on the recall of forgotten memories, that many psychiatrists hesitate or refuse to accept such patients for treatment—and unless an eventuality such as this is anticipated and adequate safeguards taken, such patients can become much more seriously ill emotionally if they are investigated by the hypno-diagnostic techniques described in this article. On the other hand, if the psychiatrist is well-trained and if adequate precautions are taken, these dangers can be circumvented and patients who otherwise would receive no help can be helped—and perhaps helped a great deal.

One of our patients was a veteran in his mid-twenties [patient of H.R.] who had developed a rather severe ulcerative colitis. He was first seen four years ago. We felt that his colitis was serving as a suicidal equivalent, and therefore recommended that he make arrangements for comparatively intensive psychotherapy. Instead, he decided on supportive medical treatment from his gastroenterologist. His colitis went from bad to worse. It ultimately reached the point of necessitating V.A. hospitalization, five months later, for an ileostomy. His gastroenterologist and his surgeon both felt that the operation was mandatory. His colon, they stated, looked like a "red hot" appendix.

The problems involved were discussed with the chief of the medical service and the surgeons, and it was agreed that during the following month our total consultation time at the hospital would be devoted to an attempt to help him desire psychiatric treatment. This was the only psychotherapeutic goal set. Surgery was therefore postponed, although outside consultants were called in to help residents sales-talk, bludgeon, and threaten him to request it. They were unsuccessful.

Within six weeks he reached the point of being ready and willing to accept psychiatric treatment. He was therefore transferred on voluntary commitment, and at his own request, to another V.A. hospital, where for several months he received fairly intensive psychotherapy. He became well enough to leave the hospital, was seen on an outpatient basis for several more months, was not thought to have sufficient motivation for actually intensive psychotherapy, and was therefore carried supportively for some time.

Three and a half years later he requested an emergency appointment. "I am," so he stated, "losing control of my bowels and soiling my underwear almost every day." He explained that since he was a salesman making only \$75 a week, he wished just treatment enough to make it unnecessary for him to continue losing bowel control while outdoors. "I don't wish to let it come out!" he emphatically stated.

He was rapidly hypnotized by an eye-fixation method to a trance state deep enough for amnesia to be suggested, and then told that he had the choice of keeping "it" in or not as

he himself wished; but that the choice was his, and his alone, of letting "it" come out or of holding "it" in. So far as possible his exact words were used. It seems obvious that when he used the word "it," he was referring to his bowel movements; but it seemed worth probing in the direction in which probing was being attempted, since otherwise, so far as could be judged, we would be stymied.

Immediately after this suggestion had been made, he began squirming around and, while crying convulsively, shouted at the top of his voice, "I won't! I won't!"

"You don't have to, if you don't wish to," the psychiatrist agreed. "It's entirely up to you." At this he began swallowing rapidly. He then got on his knees in the middle of the office floor, made movements which could be interpreted as pulling down a zipper, went through the motions of taking something in his hand, pulled his mouth over to it, and began sucking rapidly and forcibly. He suddenly again began shouting, "Blow storm! Blow storm!" went over to the couch, lay upon it, kept moving his lips in forced and pronounced sucking movements, laughed and sobbed alternatively, became silent, and then gradually grew relaxed. The session came to an end after he was told that he could remember what had transpired or not, as he himself wished, but that the choice was his and his alone. He became amnestic for this abreaction, and, incidentally, still has no memory of it.

He was seen twice the following week. On both occasions he lay on the couch, was hypnotized by the same eye-fixation method but to a light trance only, and was told that the psychiatrist would remain silent as he stated whatever came into his mind. He was also told that he would remember everything that took place, and everything that he said, during these two sessions. He was able to think only of "Blow storm! Blowstorm!" For months he had had a "terrific desire" for cunnilingus, but had never had courage enough to try it. But that had had nothing to do with his symptoms, or so he stated. What he most wanted out of treatment was to get rid of them, and to be able to lead a normal life with marriage and with children, even though he didn't know any girl he'd like to marry. By now, incidentally, he was no longer soiling his clothes.

He was scheduled to be seen twice the following week, but unfortunately contracted one of the "virus flu's" that were so common at the time. Previously, whenever he had had a cold, so he explained, he would lose complete control of his bowels. For some reason, perhaps related to therapy or perhaps not, he was now able to control them. This was discussed with him in detail two weeks later when he was next seen.

This session was completely on a nonhypnotic level. Immediately after entering the office, he wished to know what the therapist would do himself, if he had his symptoms—I would wish intensive therapy, probably analytic but most certainly analytically oriented (Cushing, 1953). He wished this but could not afford it. He would have to ask his uncle for that much money, and he'd rather die than do that. He could get it, of course, if he really needed it, but he'd rather die. Anyhow, he was no longer that sick! And he had just bought a \$3,000 automobile. If it came to a choice between paying a psychiatrist or buying a car, he preferred the car. All that he really wished, and he was exceedingly frank

about it, was to be seen on a twice-a-week basis for the next month, so that he could get his symptoms completely under control. If it became necessary to have treatment every once in a while, in the future as in the past, he would feel satisfied. It was therefore agreed that he would be seen on a twice-a-week basis during the following month.

The next session was an exceedingly dramatic and even melodramatic one. Once hypnotized and in a light trance state, he began panting, gave every overt evidence of pronounced anxiety, and then breathlessly exclaimed, "I'm thinking of a blow storm." He made no further comment about this, however, but stated instead that he was now thinking about a friend's wife, then about the wife of the psychiatrist who had previously treated him, and then about John, an effeminate acquaintance of his whose nose was the same shape as hers. He then began gagging, felt as if he had to rush to the lavatory to keep from vomiting over the office rug, and leaped from the couch in order to do so, only to find that his gagging had ceased. "I came in John's mouth," he explained, "and that's what made me gag." In the discussion which followed it became obvious that he knew he had not been having this particular acquaintance perform fellatio upon him, even though "it seemed real while it happened." This led to a discussion of the fact that when in the street in the course of his daily work he not infrequently experiences exactly the same reaction, but without the conscious homosexual fantasy, although nevertheless "I go through the exact same experience." And, so he continued, "Here's the angle—either I get a cramp or I gag. These are the two forms it takes. In conscious life, if I think I'm coming in John's mouth, I spit—and the moment it's out, I get release."

The session had practically come to an end by this time. He was therefore told that if he wished to remember this material, he could; but that if he did not, he need not. He was then dehypnotized on signal, and the material elicited during the session was briefly discussed with him on the conscious level. He remembered it completely and was able to discuss it in a meaningful way. He had now come into what seemed on the surface a fairly good treatment relationship.

This patient's underlying anger and rage did not come to the fore until later, at least not in a form accessible to therapy. It nevertheless was hinted at during the course of his rather melodramatic sexual acting-out.

This acting-out itself seems worthy of comment. It will be noted that his originally articulated conscious fantasies were those of cunnilingus. Under hypnosis the fantasy which, incidentally, he could remember, was that of fellatio performed upon him. His fantasies on a still deeper level, as evidenced by the acting-out for which he spontaneously became amnestic, were those in which he himself orally and actively engaged in the practice. And all of this, even in the early sessions, he somehow tied in with his colitis symptoms. The orality emphasized by Mary Cushing in her discussion of the psychoanalytic treatment of a patient with ulcerative colitis (1953) immediately comes to mind.

In our experience acting-out of this type frequently concerns itself with suppressed, as well as with repressed, desires. This seems especially true when masturbatory activity

manifests itself. Examples have already appeared in the literature. Apparent epileptic or asthmatic attacks, for instance, can be deliberately precipitated during hypno-diagnostic consultant sessions, and then blocked, after which the inevitably resultant anxiety can be repressed by direct verbal suggestion, so that underlying fantasies may erupt into conscious awareness even to the point of being acted out. As one would expect, attacks investigated up to the present in this way seem to consist of partially repressed erotic or aggressive drives with actual or substitutive motor defenses against their appearance (Rosen, 1953).

One patient, for instance, was a 20-year-old miner's wife [patient of H.R.] with a two-and-a-half year history of what had been diagnosed as "psychic epilepsy." She was referred for intensive neurological and neurosurgical investigation. No studies, however, yielded clear-cut results. A psychiatric evaluation was therefore requested. Because she had been "snowed under" by drugs during electro-encephalography, she was almost an hour late for the appointment. Her nurse at first had been unable to awaken her. Since she was groggy and all but asleep when she reached our office, hypnotic suggestion was utilized to awaken her to the point of making possible a meaningful psychiatric investigation. She then began to explain what her "periods" were like. It was obvious that by this slip of the tongue she was referring to her attacks. They had started, so she stated, "right after I graduated and was looking for a job. I'd feel like I was grinning—just a *silly* grin—and I couldn't control it, but I tried hard. And I always felt somebody was laughing at me, or looking at me. And that made me embarrassed. I always feel embarrassed with these attacks. But if I cough or laugh, I get over them. That's how I stop them. They wake me up, and I start hollering and trying to cry. And they're getting worse, so I get them four or five times a night now."

One of her attacks was then precipitated by the direct hypnotic suggestion that she have it. She opened her mouth, her whole body seemed to quiver, and she moaned. Her right hand went over her mouth, she began to cough, and the "attack" was aborted. She was next told that, at the count of 10, she would have another attack, but that there would be no coughing this time. She moaned; her body quivered, and her legs drew up under her. Both arms became stiff and rigid, and both fists were clenched and held in midair. Her head shook back and forth, as though in negation. Her eyes closed, and she seemed to frown. Her lips were so widely parted that one could see her tight-clenched teeth. After some eight minutes she suddenly went limp, seemed completely relaxed, and showed the "silly" grin she had previously described.

("You seem relaxed. Could you tell me what it is you're feeling?") She had had no feeling at all, either during the attack or after it, or so she said. At this, she was told at the count of five she would have another attack, and that this time she would feel, *really* feel, whatever emotion, whatever feeling, was *really* connected with it. The psychiatrist slowly counted to five. She became rigid, arms bent on elbows, hand and arms jerking rapidly back and forth, head jerking from side to side as though in negation, legs stiff but trembling.

(“The attack will cease now as I count to five. It will cease when I count to five. One, two, three, four, five.”) She suddenly relaxed, then began to tremble. She seemed fearful.

(“As I count to five, your trembling will cease. There’s no need to be afraid now. You can face it, whatever it is. One, two, three, four, five.”) She seized one hand with the other. Her abdomen began heaving more and more rapidly and more and more violently. She suddenly put her right hand between her legs and for perhaps a minute and a half masturbated herself rapidly through her dress. This was followed by a long drawn-out sigh, after which she lay back on the couch, apparently completely relaxed, and with the same “silly” grin on her face.

After several minutes the psychiatrist asked, “We both know what this is now, don’t we?” She nodded. So this meant that every time she had one of these attacks, she was playing with herself. . . . She remembered when she was very small and her brother was putting a snow suit on her. She had asked him if she could play with herself first, if he wouldn’t tell her mother. He said he wouldn’t. But he did. So her mother told her she would go to hell for it. . . . And now, every time she has one of these attacks, was that what she was doing? . . . She was a Catholic, and it was a sin. What should she do? The subsequent discussion centered on her need for psychiatric treatment, and the advisability of her making the necessary arrangements to receive it.

With another patient [patient of M.H.E.] with a “silly grin,” such acting-out was neither indicated nor necessary. This patient explained that these silly grinning periods of hers would come on at certain irregular intervals. While she was in a trance state, the psychiatrist discussed the duration of smiling, how it begins slowly and ends slowly, and how the person who smiles is pleased and feels better, as does everybody else. Since it is a very natural thing, so it was stated, it should never be called a grin, nor should it be termed silly, nor a dirty look, but it should be appreciated as one of the normal functions of the expression of the person, whether male or female. Somehow or other, the therapist added, there is an expression that is meaningful.

In her next trance this girl asked the psychiatrist to explain menstruation to her. She was asked if she wanted this on conscious or hypnotic levels. The girl’s simple statement was, “I think probably I ought to know in both ways, so tell it to me now, and then awaken me and tell it to me again.” Her “silly” grinning periods are now over. Her menstrual pain has disappeared. She no longer stays in bed three days each month with severe cramps. Her statement during her next period, when she walked into the office, was, “Doctor, I am a queen today.”

During the past five years one of us has seen masturbatory responses, like the one shown by the first of these two patients with the so-called “silly” grins, in three other nonpsychotic hypnotized patients [patients of H.R.] (Rosen, 1953). He has, in addition, seen on the medical wards during the same period of time three patients whose psychoses had previously not been recognized, and who, during the consultation session, touched or otherwise digitally manipulated their genitals. Needless to say they were not hypnotized. Psychiatric hospitalization was recommended in each case.

It seems of parenthetic interest that patients with borderline schizophrenic reactions are applying more and more frequently for treatment under hypnosis. One patient, [patient of H.R.] for example, stated that she had no symptoms but was applying for psychiatric treatment under hypnosis because she wished to become even better adjusted and even healthier emotionally. Immediately after entering the office, she lay on the couch, bent legs over thighs and thighs over abdomen, and began moaning while making what to all intents and purposes seemed convulsive abdominal movements. She was at no time hypnotized. On questioning, it developed that she was spontaneously abreacatin—without any suggestion by the therapist and without being hypnotized—the delivery of a child. When this was further investigated, it developed that she was fantasizing going through the birth canal herself and being “reborn.” She was showing, as it further developed, a catatonic reaction.

The schizophrenic patient can be said to have ready access to his unconscious. This is amply illustrated by the case material published, for instance, by Frieda Fromm-Reichmann (1950), by John Rosen (1953), and by others. The hypnotized neurotic patient, on the other hand, so we feel, may at times have ready access, not so much to his unconscious as to his preconscious. It is because of this that with selected patients symptoms and syndromes can readily be investigated by hypnotic techniques of the type described. Symptom origin occasionally may be rapidly correlated with life situations or traumatic events. Their symbolic significance, especially when homosexual, masturbatory, aggressive, or homicidal impulses are repressed, may become apparent (Seitz, 1953). Isolated affects, thoughts, or emotions, especially if phobic material is being dealt with, can be appropriately fused even in the conscious acting-out of a previously traumatic event. Or specific fantasies, likewise, may be acted out.

One patient, [patients of H.R.] for instance, with pseudocyesis was seen in emergency consultation after having wired mother and mother-in-law, both of whom lived in other states, to come immediately, since labor had started two weeks earlier than she had expected, and since she was now leaving for the hospital.

She came to the office under protest, walked over to the couch, and lay upon it, drawing both legs up under her. Because of her abdominal protuberance, she could easily have been taken for a pregnant patient.

The therapist remained silent. After three or four minutes she spontaneously began sobbing: “I don’t want to kill myself! I’m not too unhappy at not having a child. But I don’t think that I can live without one....

“I thought I was pregnant. I felt those movements, and I was so happy. I’d throw up my food and laugh about it. I went to a doctor—almost nine months ago—and he told me I was [pregnant]. Then I started spotting. So I went to Dr. A. He said, ‘If you are, it’s too soon to tell!’ I wondered why he didn’t tell me, so I went to Dr. B. He said I was. Then, two months later, he gave me a test and said I wasn’t. But I knew I was. So I watched my

diet and took care of myself. I feel life. I'm pregnant. I know I am!" And at this, she began sobbing convulsively.

As it developed, she had told her neighbors, her friends, and her relatives that she was pregnant. She had even told everybody the date on which she expected to enter the hospital for delivery. "I feel life inside me now," she insisted, "I'm about to have the baby. It won't be long now."

"And yet, every physician has told you you're not pregnant. Why do you think they've said this?"

She was silent about five minutes and then, very slowly, began to speak: "These past months I've been living in a dream world. I've planned and I've talked. I wish I were dead now. I couldn't do anything to myself—I'm Catholic—but I keep thinking of stepping in front of a car ... It's been four years ago last May, when my father died, and that's when I cried too much. And ever since *I've kept everything inside*. I didn't want to worry my Dad. We didn't have no mother. It's never bothered me, being so bottled up all my life, but I never really cried because my Dad would worry—except when the doctor said he had only 30 days to live. And he was buried on my first wedding anniversary." She was now sobbing convulsively. She then began to scream, "I'm going to have my baby! I'm going to have my baby!" And at this, she ceased speaking.

She was hypnotized at this point. Her legs spread apart on the couch; her knees bent; her thighs drew up over her abdomen; she began moaning and groaning; and then, during the next ten minutes, her buttocks and abdomen heaved up and down, back and forth, almost rhythmically. When asked what she was doing, she answered, "Having my child." The psychiatrist repeated, "Your—child? Are you sure?" Her body movements stopped at this point, she ceased groaning and moaning, and in an almost inaudible voice exclaimed, "No—not my child. It's my father I'm giving birth to—I need him so much." And at this, she became completely silent and motionless.

She then spontaneously added, while still hypnotized, that she knew intellectually she was not actually pregnant, but she felt she was. . . . However, she had now delivered—so she was no longer really pregnant!

Before the hypnotic session was terminated, this patient was told that she could remember everything that had taken place and everything she had said, provided she really wished to; but if she wished to, she could forget anything she had said or done while she was hypnotized, either in whole or in part. The hypnotic session was then terminated.

Actual acting-out of this type can not infrequently be circumvented by having the patient dream, while in a trance, whatever it is she really wishes, dreaming it very freely, very vividly, without need for inhibition, so that it becomes real to her. This dream method of acting things out can also be exceedingly effective. Because of the length of this article, and the simplicity of this technique, examples will not be given here.

## **DISCUSSION**

In this paper we have stressed and illustrated various of the hypnotic techniques whereby symptom-function in both neurotic and psychotic patients can be evaluated. Parts of hypno-diagnostic sessions were quoted almost verbatim. Basic conflicts and even personality structure at times became apparent. No attempt has been made, however, to describe the course taken later in therapy by these patients. This will probably be done in a number of clinical papers dealing specifically with the individual patients involved. In this paper we have attempted to limit ourselves to a discussion of hypnotic and hypnotherapeutic investigatory techniques in the determining of symptom function.

With some patients functions served by neurotic symptoms seem almost conscious. They become obvious almost immediately on trance induction. No specific specialized hypnotic techniques seem necessary. One patient [patient of H.R.] with severe pruritus, for instance, who stated that she wanted nothing so much as the intercourse which nevertheless caused her intravaginal itch to become unbearable, was convinced that her only "cure" lay in obtaining a divorce. With other patients, on the other hand, this material is, of course, preconscious. This nevertheless may be elicited or acted out, again, merely on hypnotic induction. Our patient with pseudocyesis is a case in point. But with some patients, like the one with ulcerative colitis, specific key words must be seized upon and repeated before dynamics or function become experimentally clear. And with still other patients specialized hypnotic techniques must be utilized. These have been illustrated in detail during the preceding discussion.

When these techniques are utilized, however, a word of caution seems necessary. Regression, as Kris has stated, under certain circumstances can be in the service of the ego. However, the inept use of these techniques by diffidently trained or untrained psychiatrists, psychologists, or even self-ordained family counselors, who neither know nor realize what they are dealing with, can result in pronounced harm to the patient. Fantasy formation may be encouraged with psychotic patients, or the patient may, either by direct suggestion or by the mishandling of dynamic material, be enabled and pressed to consolidate defenses when such consolidation would be contraindicated. This does not constitute an objection per se to the use of radical hypnotic investigatory techniques. We do object, however, to the unlicensed and uncontrolled use of hypnosis by inept and untrained individuals who consider it a parlor trick and who utilize it either as a cloak for their own lack of adequate training in dynamic psychiatry or as a means of obtaining substitutive gratification for some of their own unresolved personality problems (Rosen, 1953).

It can readily be seen, for instance, that if specific precautions were not taken, some of our schizophrenic (preschizophrenic or psychoneurotic schizophrenic) patients who were making a fairly well-compensated social adjustment could utilize such techniques for the precipitation even of a catatonic state. Reality testing, with preservation and strengthening of the ego, rather than merely the abreactive induction of aggressive

phenomena, must always be the desideratum. On the other hand, with some psychotic patients this may, paradoxically enough, be of value.

To illustrate: the husband of one of our patients [patient of H.E.] thought, so he stated, that his wife was catatonic. He turned out to be a petty criminal, a voyeur, and a sexual exhibitionist. Shortly after he was arrested and sentenced, she asked why we kept roses floating up in the office. She knew that the psychiatrist was a hypnotist and, on entering the office, she had gone into a trance. She was told to let the roses float into a vase. They were then made, first to change color, then to change into a rosebush, but a rose bush which the psychiatrist had never seen. As a result of this, our patient described a little girl watching her father cut roses. After some months of treatment she would exclaim spontaneously, "Let me sit over there, and I will tell you what to do with those roses and with that little girl who is growing up." The roses dropped out. Her varied ways of spelling her name at different age levels came up. She would often discuss that hallucinated figure of hers, which bore different names, wore different clothes and was in different places according to the particular event described. High school adjustments ultimately came into play, and then college adjustments followed. She is no longer clinically psychotic, and is now able to hold a responsible position.

In a field as complex as that of human behavior it usually is extremely difficult and sometimes impossible to set up satisfactory experimental conditions for the investigation even of what may be assumed to be relatively simple phenomena (Wolberg, 1945). When behavioral patterns come under investigation, hypotheses can frequently be advanced but seldom validated (Brennan, 1949). Determination of symptom-function, unless the patient is under long-term therapy, is usually impossible. Nevertheless, with selected patients hypnotic techniques have already been utilized as potent therapeutic and experimental tools in the validating of previously described dynamic concepts. The most significant of these, in all probability, are Erickson's hypnotic experiments on the psychopathology of everyday life (1939), Erickson and Kubie's translations of the cryptic automatic writing of one hypnotic subject by another when in a trancelike, dissociated state (1940), Farber and Fisher's investigation of the interpretation of dreams not their own by hypnotized college students (1943), Wolberg's direct suggestions for material to be incorporated symbolically into dreams by his hypnotized patient (1945), and Rosen's studies of hypnotic fantasy-evocation and dramatization techniques, especially in a patient with severe pruritus vulvae (1953). Seitz' experiments, in addition, warrant careful study (1953).

It will be noted that a number of our patients abreacted spontaneously, occasionally in the present but at times by regressing to earlier life situations and behavioral patterns. In most of the illustrative cases this seemed to be on a compulsive basis.

While we feel that abreaction of this type may serve to make evident at least some of the functions which symptoms and symptom-complexes serve, nevertheless even here a word of caution seems necessary. These patients may somehow, perhaps not too rarely, find it possible to seize on the hypnotic relationship to rationalize to themselves their acting-out of suppressed or repressed desires. With a number of patients, this in all probability

constitutes a sexual advance toward the therapist, and must be considered as both an attempt at seducing him and an expression of unconscious sexual impulses which nevertheless are being utilized to mask, but without effectively disguising, pronounced underlying hostility and aggression-on one level against him, and on deeper levels against key figures in early childhood and infantile environments (Rosen, 1953; Wolberg, 1945).

Such acting-out, although for the moment serving to release tension and thereby provide emotional relief, solves no personality problems and as a result cannot be considered curative. It does to some extent, however, involve dynamic participation on the part of the patient, and may make—or help make—possible his active participation in the setting of the therapeutic goals to be attained, as well as his active collaboration later during the treatment process itself. A discussion of this, nevertheless, would be beyond the scope of this paper.

## SUMMARY

1. Symptoms and even syndromes may subserve the repetitive enactment of traumatic events; may reproduce, instead, specific life situations; may satisfy repressed erotic and aggressive impulses; or may at one and the same time constitute defenses against, and punishment for, underlying instinctual drives. They may mask underlying schizophrenic reactions or hold suicidal depressions in check. They may serve these and other functions concurrently, or none, or any specific one or combination of them.
2. With selected patients under hypnosis symptom-function may be determined rapidly and in a therapeutic setting. Various techniques can be utilized. Attacks may be precipitated and then blocked, either by direct hypnotic suggestion or by regressing the patient to a period predating the onset of his disease, so that substitutive motor or other activity will be precipitated in a form accessible to the therapeutic investigation; attacks may be precipitated in slow motion, so that individual components can be therapeutically investigated in detail; dissociated states may be induced; dream acting-out may be suggested; or symptoms may be suggested away while emotions back of symptoms are concurrently intensified, so that, again, underlying dynamic material will immediately become accessible for therapy. Still other techniques may be utilized.
3. If treatment, as well as evaluation, is through these techniques, and if treatment is successful, it may be that the analogy of a log jam will be of value. The jam can usually be broken by pulling out one or two key logs. The rest then start falling into place—and the whole log jam disappears. This may be what happens, although to a limited extent, during therapy of this type.
4. Various of these techniques have been illustrated throughout this paper. Case histories however, have at times been distorted in order to maintain the anonymity of the patients involved.

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# **Experimental Hypnotherapy in Tourette's Disease**

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Two patients, both in their mid-thirties, one a married woman with three children, the other a married man without children, much to his regret, presented themselves for treatment for Tourette's Disease. Both had a history of a sudden acute onset, and both required therapy over a two-year period, the therapeutic sessions becoming progressively more infrequent as therapy continued. Both insistently demanded hypno-therapy and were convinced that it would be their salvation. For both the onset of the condition was acute and circumscribed and remarkably similar.

## **FIRST PATIENT**

During the course of listening to a sermon one Sunday, this patient, the woman, had become horribly distressed to find herself unaccountably impelled to utter a variety of obscenities, particularly vulgarisms concerning body functions and sexual activity, all being ascribed to Jesus. She fought the overpowering vocal impulses desperately along with compelling desires to grimace, to gesticulate, and to posture. Her husband, noticing her distress, tried to make whispered inquiries, and this intensified her symptoms. She finally resorted to the measure of covering her mouth with handkerchiefs and shoving her fingers as far as she could into her throat. This resulted in retching, and she hastened to the ladies' lounge, shouting "Get out" to those who sympathetically came to her assistance. By turning on a faucet and a continuous flushing of the commode, she managed to cover-up a half-hour's exhaustive repetitious vulgar vocalizations.

Fortunately, since she had the keys to the family automobile in her handbag, she managed to get to the car and then to drive a mile to reach home, racing the car engine in first gear to cover-up her continuous vocalizations. She locked herself in the bedroom and spent an exhausting afternoon in vocalizations, grimacing, and posturing, interrupting herself only enough to yell at her husband that she was all right, that she wanted solitude, to let her alone, that she would see him on the morrow. That evening, without having eaten lunch or dinner, she took a heavy dose of sedatives and managed to sleep.

The next morning she awakened in acute fright, wondering if she had developed a sudden psychosis. The compulsive vocalization was still present as well as the need to grimace, to gesticulate, and to posture. She yielded to these and desperately reviewed mentally possible measures of concealing, distorting into more acceptable forms, and passively yielding to the impulses so that she could pattern her symptomatic behavior into some less distressing form. Since she had met the author socially on a previous occasion, she made use of her bedroom telephone extension to solicit his aid. The content of her telephone call was practically diagnostic in its character.

A house call was made, and the husband was reassured after a fashion to permit some reasonable provisions to meet his wife's condition. He was distressed by the secrecy being maintained but yielded to the extreme violence of her demands issued through the bedroom door in halting phrases because of interspersed whispered obscenities.

She demanded hypnotherapy, about which she had read various glowing lay accounts. Despite the adverse nature of the situation the author agreed, but emphatically demanded that she yield completely in utter submission to his choice of procedure. Approximately two hours were spent because of her involuntary interruptions of the author in making certain that she agreed without any reservation to any therapeutic procedure the author had in mind. Innumerable seemingly outrageous possibilities were outlined to her to make certain that she understood that the psychotherapy in mind was by no means even remotely orthodox. As soon as she understood this fully, hypnotic induction was undertaken. All appropriate and fitting hypnotic suggestions were offered in the proper sequence and progression that the author's experience had disclosed to be most reasonably effective. However, those suggestions were embellished, interlarded, couched, and elaborated with obscenities, vulgarities, and profanities that far exceeded the worst she had uttered.

She was utterly appalled, horrified, and what was most important, completely silenced with a rigid fixation of her attention upon the author and the hypnotic suggestions being offered to her in such a peculiar emphatic fashion. (The fact that she knew the author well socially undoubtedly constituted a highly significant but not measurable factor in the total situation.) At all events, within 10 minutes she developed a profound somnambulistic hypnotic trance in which silence, passivity, and abject obedience were demanded and received. With urgency and calculated haste she was disoriented for time and place, suggestions of a state of fright, of complete obedience to, and of utter dependence upon, the author as the representation of all that was good, reliable, comforting, and helpful were emphatically given to her. Thereupon she was reoriented with extreme care to avoid any possible traumatic event to a time two years in the past with emphatic instruction to remain so oriented or regressed after awakening from the trance despite all disturbing and wonder-provoking stimuli of her surroundings.

As soon as the author felt relatively secure in his control of the situation, the husband was summoned. Fortunately, he was a college graduate with a considerable background in psychology. Rapport with his wife was established for him.

The first measure with him was to inform him extensively concerning the syndrome of Gilles de la Tourette's Disease and to assure him that he would be furnished with references in the literature so that he could understand the peculiarity of his wife's affliction. This was done in his wife's presence in her regressed state, and she was informed of the possibility that sometime in the remote future she might develop such a condition. While she was thinking this over in the trance state, her husband was separately informed of the true state of affairs and of the regressed trance state of his wife as a temporary measure of controlling her problem. In his distress he agreed to let the

author attempt experimental therapy, since the author could not inform him of any adequate therapeutic procedure.

The therapy worked out then and instituted was:

1. Informing the patient in the trance state that "in the future" she would be so afflicted.
2. Informing the patient that she was in a somnambulistic regressed trance state and that this was serving to control her problem, which was an actuality in her ordinary waking state.
3. Seeking the patient's cooperation in devising some measure of control of the symptoms.
4. Emphasizing that, since hypnotic regression had effected a temporary relief, hypnotic suggestion could and would undoubtedly be efficacious.
5. Suggesting that the patient be content with minor progress in control and improvement rather than demanding a miraculous cure.
6. Securing her absolute promise to abide by both her condition and the modifications of it that would be suggested.
7. A long discussion concerning the type of motor components that she would willingly permit and the nature of the utterances in regard to both content and volume.
8. The absolute need for her to remain an excellent hypnotic subject for either the author or any other therapist who might take responsibility for her.
9. The absolute need for her absolute obedience—instant, complete, and without question—upon the slightest request, whether she was awake or in the trance state, and that this obedience would be expected even when she personally objected to instruction.
10. The teaching of the patient of a series of 10 posthypnotic cues by which to develop a trance state and a regression state. (The author did not want to rely upon one or two such cues.)

As this instruction of the patient progressed, it became increasingly difficult to maintain the trance state as well as the state of regression. The patient became increasingly distressed about the author's description of her condition; she obviously did not want to believe his statements, yet the demeanor of her husband, with whom she had been given needed rapport, as well as the emphasis with which she was being given instructions, were most compelling of her belief and acceptance. However, it was apparent that this trance state could not be maintained much longer, and a compromise was offered to the effect that she would arouse from the trance state to remain in the waking state of awareness for whatever time she wished, not to exceed an hour, and that she would then develop a profound somnambulistic regressed trance state. To this she agreed.

She awakened only to burst into a torrent of characteristic utterances accompanied by posturing and gesticulations.

After about 20 minutes of this she managed to express a wish that the author would or could in some way take charge of her situation. This was followed by further uncontrollable behavior and then a brief pause, during which another trance state was induced with explicit and emphatic instructions that henceforth at the first sense of uncontrollable behavior on her part she would immediately regress in age to a period of two years in the past. She accepted this instruction with a facial expression of hope.

After a second brief orientation of her husband concerning her condition, during which the patient listened attentively, attention was given to the task of outlining further the course of therapy for her. This was to include: (1) periodic visits to the author's office; (2) the systematic learning of a pattern of behavior that would meet the compulsions of her illness and yet enable reasonable daily life adjustments. Blind and complete acceptance of these two requirements was demanded and finally agreed to in a most binding fashion.

It was then explained that:

1. She was to continue her symptomatic behavior in a "satisfying" but "better" manner. That is, since her manifestations would occur in either the presence or absence of others, her symptomatology could be entirely adequate if she alone knew of it. Thus, her utterances need not be so loud, since she could hear even the softest of whispers as well as the loudest of shouts. Additionally, the posturing could also be minimal, since she could be aware of it and any associated thoughts, however minimal the postural movements were. There was added the explanation that her illness, however severe, must necessarily be inconstant in manifestation, since she would have to eat, to drink, and to sleep, and that each of these activities would constitute temporary barriers to symptom manifestation. Hence, thoughtful and careful consideration of these facts would permit realization that there could be other periods of symptom-freedom and hence that extensive therapeutic procedures could be instituted. Much repetition and explanation of these ideas had to be given together with emphatic instruction that all understandings presented were to become an integral part of her waking state regardless of symptom-distress.
2. Systematic instruction was then given and practice insisted upon in uttering in low tones and whispers both her own utterances and some of those the author had voiced. This was demanded most cautiously, with full instruction that a regressed state would develop instantaneously if the author anticipated difficulty for her. This anticipated difficulty, not explained to her, was the possibility of her arousal from the trance and loss of control of the situation. Perhaps unnecessarily, the author did elicit the regressed state several times as a precautionary measure. Also, she was to develop new gesticulations more awkward and less meaningful to the observer than were the "grinds and bumps" which constituted a part of her motor manifestations. Coughing, gasping, choking, yawning, if necessary learning how to belch voluntarily, crossing her legs violently, or whatever else she felt

could be bearable were suggested, and she was made to demonstrate the suggested acts.

The patient became most meditative and subdued, and when a regressed state was induced, she was asked to view herself in the future in a thoughtful situation with the author's right hand on her left shoulder and holding her left hand with his left hand. In this way it was possible to pseudo-orient her to the future while in the regressed state with physical contact constituting a part of the conditioning process. Thus, the composure of her regressed state allowed her comfortably to speculate upon her "future needs" as seem indicated by her visual hallucination of herself in suggested special settings, including her actual present condition.

In elaborate detail many ideas about her general and symptomatic behavior were worked out in relation to her home, her family, and her various obligations. Provision was made for her family to leave immediately on a vacation for two weeks with a complete cancellation of all social obligations and all incoming telephone calls. Thus the patient was ensured privacy and opportunity to practice new patterns of behavior.

She made regular visits to the author, but instead of racing the engine, she turned on the car radio to high volume and yielded completely to her vocalizations. Thus, she "got it out of my system" to permit therapeutic interviews with the author. These were barren so far as understandings or information were concerned, but they were most useful in augmenting her ability to modify, control, and direct her symptomatology.

One significant oversight in the proposed therapy was disclosed by the events of one night about a month later. She awakened suddenly and disturbed the whole household by a violent manifestation of her symptoms. When interviewed in both waking and trance states the next day, the explanation was that she had to have "escape valves" as a "safety measure." This led to the provision that weekly, biweekly, or even less frequently she would go into the garage, close it, turn on the car radio full volume, and "let loose with everything."

At first this occurred weekly, but slowly came to be more and more infrequent until the practice was discontinued.

Therapy was continued for two years, first at weekly intervals, then finally at monthly intervals. That the last year of therapy was necessary was questionable in the author's mind. The patient, however, felt that she would feel more comfortable if therapy were continued, even though it was slowly transformed into essentially little more than social visits.

More than five years have elapsed since therapy was discontinued. The patient is free of her symptoms, and has been wholly so since the completion of the first year of therapy. A year ago (1963) she sought an interview with the author on other matters, reminisced with amusement about her previous condition, and declared, "I can say all those things and make all of those movements voluntarily without any distress. Let me show you."

She did most comprehensively and then with a laugh remarked, "I am not sure whether some of the things I just said were mine or some of the embellishments with which you horrified me so terribly. Have you or any other psychiatrists any understanding of what an awful mental state descended upon me that time? It makes me shudder to look back upon it, but I remember you telling me that other people got it too. It's really too awful to think about, but I wanted you to be sure I'm over it." (At this writing, she still is.)

Questioning of her during therapy and subsequently of why therapy seemed effective elicited no information. The only conclusion was that it was a blind effort that fortunately succeeded with her.

## **SECOND PATIENT**

A year after therapy with this patient was discontinued, a second, much less severe patient presented himself. His statement was that he was on his way to church one Sunday when, as he caught sight of the church building, he found himself involuntarily bursting into incredible obscenities and profanities with grinding of his teeth and much shaking of his fists. Little description was needed of his symptomatology, since he punctuated the narration of his history with it.

At first only the sight of his own church led to symptom manifestation, then other churches, then the sight of anyone in religious garb. By occupation he was a bartender in an exclusive bar; but as his symptoms continued he discovered that the utterance of a single word of profanity would precipitate an uncontrollable explosion of a minute or two duration from him. At first he avoided going to church, then to streets where there were churches. Finally he had to resign his lucrative position and secure employment in a rough-and-tumble tavern where he soon became favorably known as "The Cussing Bartender" and where his language and behavior attracted a certain clientele, since his episodes were brief though repetitious. In fact, it became a challenge for the tavern's clientele to think up new precipitating phrases which the patient found himself unable to keep from incorporating in his own vocalizations.

His wife resented his reduced income, swore at him in her anger, and became suddenly and painfully aware of her husband's affliction, which he had kept secret from her, enabled to do so by his working hours and careful avoidance of her. She insisted upon psychiatric therapy without delay.

As the patient related his problem, the other patient was called to mind. He differed in that his manifestations seemed to require a "triggering" by sight of something pertaining to religion, religious thinking, or hearing profane and obscene utterances by others.

The patient was then questioned about his willingness to undertake hypnotherapy, and he declared that that was his purpose in seeking the author's assistance.

A satisfactory deep trance was elicited with not too much time or effort being required, and an explanation was given to him in the trance state that before treatment of his

problem, there would be undertaken an extensive educational project that would enable more rapid therapy once it was begun. He was reluctant about this since he desired therapy at once, but finally he yielded to the author's persuasions.

Thereupon, a systematic program was instituted to train this patient in selective sensory exclusion of stimuli, visual and auditory, and to establish psychological blocks to render various words "nonsense syllables." This was carefully explained to his wife, And her cooperation was won; the patient's own high intelligence and psychological sophistication were of significant value in promoting therapeutic intentions.

Extensive inquiry elicited a satisfactory list of evocative stimuli, and slowly the patient learned a selective blindness that allowed him to see a church as, for example, a "white building," a nun as "a woman dressed in a ridiculous-looking black dress," to listen to oaths and obscenities as "meaningless nonsense syllables," to regard Sunday as his day off duty, and to look upon his wife's church attendance as a special feminine social activity. A thoughtless asking of grace at an evening meal he regarded with confusion and bewilderment, developed a headache, and went to bed without eating. That incident terminated that mealtime practice. Fortunately, there were no children, and the social activities of the man and his wife together were extremely limited.

As for religious thoughts of his own, the patient was extensively instructed in the matter of nonsense syllable experimentation and given to understand that he, too, could devise nonsense syllables. In this way any religious thoughts coming to his mind became transformed into nonsense syllables.

He was seen regularly in the office biweekly for about three months. During this time he was instructed in the trance state to put into force his hypnotically acquired learnings, not constantly, but at first infrequently and then with increasing frequency, so that his symptoms would occur with decreasing frequency. The patient was most cooperative, and by the end of three months he had lost his job as "The Cussing Bartender." However, he secured reemployment on probation in his original position.

After the three months he was seen with decreasing frequency, until he reported not oftener than once a month at the end of two and one-half years of therapy. During the last nine months of therapy much time was given to "There are lost memories coming back to me. I lost them some way, but now they are coming back and I like them." Cautious questioning disclosed that the word service had a "special, very special, really wonderful meaning, but just what I don't know. It has something to do with what I want to call 'sacred,' whatever that means." Bit by bit, during the last nine months, he was allowed to recover from his sensory inhibitions and induced aphasia but was cautioned repeatedly in the trance state to do this "comfortably, happily."

A year after discontinuance of therapy he entered the office to request that he be informed why he had ever undertaken psychiatric therapy, why his regular visits were such a blank in his memory, and why his wife would not discuss the matter with him despite the fact that her manner suggested full knowledge on her part.

He consented to go into a trance, and in the trance he was asked the advisability of giving him full conscious information. He assured the author earnestly that all would be well, but he agreed to redevelop a trance state upon the occurrence of any emotional distress.

Aroused, he listened most attentively, demonstrated a slow spontaneous recollection of his original problem, developed a sudden trance in which he explained that his memories horrified him but that he was no longer a victim of that disorder, that he would not be more than distressed by his memories if awakened, that there would be no recurrence. He was awakened, showed reluctance about further discussion, but did assert that he remembered fully and was certain he would not again be so afflicted.

A year later he reported that, shortly after the previous visit, he had begun to go to church without difficulty and that he had had no further symptomatology. He, too, inquired into the author's understandings of his illness and expressed regret that the author knew so little about the condition.

### **OTHER EXPERIENCE**

The author has seen professionally two other cases. One was a 13-year-old boy and the other was a 16-year-old girl. Both had fairly acute onsets but not as sudden as the two patients reported above. In both instances efforts made to treat the patients were utter failures. In all, for each there were no more than four interviews, and no rapport of any sort could be established despite the fact that both patients were of good intelligence. Their parents were demanding, frightened, bewildered, and embarrassed, and even they could not be handled satisfactorily. They wanted immediate results, a prescription preferably, and were not interested in any systematic attempt at therapy. They sought aid elsewhere, completely dissatisfied with the author. The eventual outcome is not known for either of these patients.

### **SUMMARY**

A report is given of the experimental hypnotherapeutic treatment of Gilles de la Tourette's Disease or Syndrome. The experimental therapy consisted of using simple hypnotic trances and hypnotic regression to permit a reeducation of the two patients in a progressively greater control of their condition and with a progressive alteration of symptomatology to render it less severe. Both patients made a recovery in approximately a two-year period. No understanding of the causation of the onset of the condition was discovered in either instance. For further references, see Chapel et al., (Chapel, J., Brown, N., & Jenkins, R., 1964, Tourette's disease: Symptomatic relief with haloperidol. *American Journal of Psychiatry*, 121, 60-70.), and Eisendberg et al., (Eisendberg, L., Ascher, E., & Kanner, L., 1959, A clinical study of Gilles de la Tourette's disease (maladie des tics) in children. *American Journal of Psychiatry*, 115, 715-723.).

# Hypnotherapy: The Patients Right to Both Success and Failure

Milton H. Erickson

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Many times the author has been asked to publish an account of a failure in hypnotherapy when success was fully anticipated. To date the author has hesitated to do so, since there was no understanding of why the failures occurred (and there have been failures, as one should expect). Why this is so seems best explained in terms of either the therapist's lack of understandings or the patient's own purposes.

The following case history is cited as an excellent example of a failure despite a partial success that still persists but which derived from neither hypnotherapy nor psychotherapy but from an unconventional procedure which changed a serious symptom into a primary nuisance to the patient with its subsequent abolishment. Such could scarcely be considered therapy; it was no more than a symptom removal that enabled him to function adequately within his own restricted limits.

He was an excellent hypnotic subject, but he was passive. He "never got around to it" in carrying out posthypnotic suggestions. Questioning him in the trance state for his history was as futile as in the waking state. He liked to "rest" in the trance state. No measure seemed to stir him into even responsive replies to simple questions. Thus, when asked if he had siblings, he replied "yet." When asked, "How many?" the reply was, "Dottie." In the waking state he gave as his siblings, "Joe."

All he wanted was a symptom correction, nothing more, and while much effort was made by this author and several other psychiatrists, no adequate history was ever obtained from him, although an adequate history was obtained by several psychiatrists from his sister "Dottie."

When first seen by this author, the patient had been shopping around, seeing various psychiatrists, all of whom were requested to undertake the removal of a single symptom and all of whom agreed that he needed intensive psychotherapy for his obviously schizoid condition. Only the author agreed finally to give the therapy requested, believing that it might lead the patient into accepting further treatment. Even so, he continued to shop around to inquire of others if he should have his symptom removed. Several told him to go ahead and that he might want to enter therapy. Accordingly, he returned to the author and made his firm restricted demand for the removal of a single annoying symptom, and he was accepted as such a patient.

Neither direct nor indirect hypnotic suggestion was of any avail. The patient remained passive in relation to all hypnotherapy. A nonhypnotic psychotherapeutic approach was equally ineffectual. Thereupon, the author devised the following procedure, which was then presented to him in much the same way as one would present a prescription saying, "Take this to the druggist and get it filled."

This patient's demand of the author was a symptomatic cure of what he called a phobia. Every effort was made to induce the patient to recognize that, though his "phobia" needed correction, he was a decidedly maladjusted person who came from a large family of children, all of whom were, with one exception, neurotic or schizophrenic, and that two of his siblings had committed suicide in state mental hospitals. The patient, a first-semester college student, declared that, while he had a schizoid personality and that he felt personally inferior, he wanted and would accept therapy for only one thing, his "phobia." This "phobia" was that he could drive a car on only certain streets in Phoenix and Tempe, and that he could reach Tempe (11 miles away) only by following one particular highway. There was one other highway by which he had often tried to leave Phoenix, but he could go no farther than the city limits. If his car passed beyond the city limits sign, he would become dizzy and nauseated; after either vomiting or retching, he would then faint and sometimes remain in that state 10 or 15 minutes.

His brother, his brother-in-law, and various friends had many times gone with him on that highway, but whether he was driving or they were made no difference. If they were driving and kept on going until he recovered from his faint, he would again faint and continue to repeat his fainting if they continued to drive on. The same thing occurred within the city limits of both Tempe and Phoenix, and he often had to park his car on a main street and walk a few blocks to reach certain destinations. On all the main highways except one leading out of Phoenix, he could not even walk beyond the city limits sign without fainting, even though he might be in the company of relatives or friends. For this problem and this problem alone he demanded therapy. Other psychiatrists had refused to accept him on his terms, declaring that they could not help him when he placed restrictions on therapy.

This author told him that he would be accepted as a patient, his terms abided by, but that if he benefited, it was hoped that he would accept further therapy. Since the patient was obdurate and demanding in his attitude, he was given a solemn promise that the author would not make any attempt other than to free him of his car driving problem. Several hours were spent with him in letting him convince himself that the author meant exactly what he said, and in securing from the author an absolute promise that he would do exactly as the patient instructed him.

This promise had been given without any details of procedure being disclosed to the patient. When the promise was finally accepted by the patient, he was handed an envelope bearing in large plain letters, "Anybody curious about me, please read the contents of this envelope." Inside, on the author's letterhead stationery, was the simple statement: "This man is my patient and he is obeying medical orders. If you find that he

is unconscious, wait at least 15 minutes. He will then recover and will answer your questions to your satisfaction." There followed my signature.

The patient was then instructed that the next morning at 3:00 a.m., since it was a weekend, he was to take the highway leading to Flagstaff, 150 miles away. Wearing his very best clothes, he was to pin the envelope to the front of his jacket with the notation on the envelope uppermost and to drive to the city limits on that highway. Just before he reached that point, he was to turn off onto the wide shoulder of that highway. (The author was well acquainted with that long, level, wide-shouldered stretch of highway with a sandy, shallow ditch running alongside of the wide shoulders.) As he reached the sign, he was to shift into neutral, turn off the ignition, coast to a stop or brake the car to a stop just beyond the sign, leap out of the car, rush over to the shallow ditch, and lie down on his back, face up, and stay there at least 15 minutes. Then he was to get up, dust the sand from his clothes, get back into the car, start it, shift into first gear, drive one or two car lengths and stop the car, turn off the ignition, put on the brake, and again lie in the ditch as before for another 15 minutes.

This process was to be repeated again and again until he could drive from one telephone pole to the next, and then past the second pole on toward the third, stopping at the first evidence of any symptoms and spending 15 minutes on his back in the ditch each time. It was further explained that traffic on that highway was decidedly slight at that hour in the morning, that if a Highway Patrol car came along the officers would undoubtedly call the author for information, that the only real problem was to be at the city limits at 3:00 a.m.

The patient's reply to all this was, "But that's plain crazy." The author replied, "Agreed, but you want a symptomatic cure, and that is what you are going to get. You made me promise and I made you promise. So, that's it." The patient protested further, "But what if I start to faint when I get up out of the ditch?" "Lie down for another 15 minutes, look at the sky and get mad at me. Then move on in the car to the next spot to lie in the ditch. That's what you want, a symptomatic cure, and you're going to get it."

At about 9:00 p.m. he entered the author's home and stated, "After about the tenth time lying in the ditch I began feeling like a damn fool. I got back in the car and started driving from one telephone pole to the next and then to the curve I could see ahead in the road, and then I got interested in the scenery. I drove to Flagstaff through Oak Creek Canyon and managed the mountain road O.K. I drove around Flagstaff, came back to Phoenix, and I've been driving all over Phoenix and Tempe. I sure as hell was afraid when I started out at 2:30 a.m., and I was scared the first time I laid down in the ditch. Then when I brushed the sand off my clothes I didn't like it. I thought it was a damn fool thing for you to make me promise, and the more I did it, the madder I got, and so I just quit and began enjoying driving."

Thirteen years have elapsed. He graduated creditably from the university in the normal period of time, but he is still very definitely a severe schizoid personality. He has seen a number of psychiatrists but has never remained with any one of them sufficiently long to enter into therapy.

He works irregularly, and although he completed four years of college successfully, he lives at a substandard level. Parental funds keep him from being penniless much of the time, and he has driven his car all over the United States on vacation trips and "job hunting."

When he does work, it is exceedingly well done, and he has been known twice to agree to a year's contract which called for a generous bonus at the expiration of the contract. He broke the contracts a week ahead of time and lost both bonuses. Each position was at a managerial level.

His parents, his normal brother, his neurotic sister, and two normal Brothers-in-law have made many ineffectual efforts to get him to stay with some psychiatrist. He is known to have visited at least half a dozen.

His status at the present time is that of one who, in a depressed mood, continued fruitless futile driving about, securing a job, working briefly and then quitting, living at a substandard level and always defeating himself. A typical example of his self-defeating activity was driving 255 miles to see the Grand Canyon, arriving late at night, and then leaving at about 4:00 a.m. the next morning to return to Phoenix without having even looked at the Grand Canyon. His explanation was, "Well, the motel bed wasn't so good."

## **COMMENT**

That the patient wanted and accepted therapy for a troublesome symptom is apparent. That he was definitely an intelligent young man is attested by his good college record and his two managerial positions, each done competently with the exception of breaking the contract at the last week and losing his bonus both times. This, however, did not cause his employers any loss; rather, they profited from his act.

This patient demonstrated a capacity to benefit rather easily and well from the intervention by someone who could create a therapeutic situation but which the patient would accept for one purpose only. The man is not satisfied with his total situation; periodically he seeks but does not accept help from the author and other psychiatrists but that is as far as he will permit matters to go. There seems to be no possible way to motivate him despite his own clear statement, "It looks like I will finally end up in the state mental hospital like my sister, and I sure don't like that idea." He did accept the suggestion that to force mental hospitalization upon himself, he might wander about the streets in a confused way until the police picked him up, but when this occurred (on two occasions) he succeeded in convincing the police that he was just "absent-minded." Thus, twice he competently averted a sanity hearing.

In brief, this man needs help, has a poor prognosis, and, to this author and a number of other psychiatrists, is therapeutically inaccessible, despite the fact that he is a good though completely passive hypnotic subject.

# **Successful Hypnotherapy that Failed**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, 1966, 9, 62-65.

The following brief case history is reported for the significant values it has in demonstrating the fallibility of success in hypnotherapy.

At a lecture on, and demonstration of, hypnosis before a dental society, the author was asked to "cure" a "gagging" patient. Upon the author's agreement to make such an attempt, the patient, a 45-year-old man, came forward. He gave his own history readily and informatively, and he was aided in this by his family dentist, who was present in the audience and who came forward with his records to offer special items of information. In summary, the history was that following a toothache and a tooth extraction at the age of 10 years, the patient's mouth had healed satisfactorily. About a month later, when brushing his teeth, the patient noted a slight gagging, but merely wondered at the cause. This slight gagging increased until, at the expiration of another month, the gagging had become so severe that he could not brush his teeth. His family dentist was consulted but could find no cause for this peculiar gagging. The family numbered a psychiatrist and a psychologist among their friends, and both saw the patient separately and together. No explanation of the patient's complaint was found by them despite a searching study. The dentist prescribed mouthwashes and a program of slow, systematic reconditioning of the patient to the use of a toothbrush. This was begun by having the patient close his mouth and touch his lips with the brush, with the intention of slowly introducing the toothbrush into the mouth, and then beginning to initiate the tooth-brushing very gently. The psychiatrist and the psychologist worked with the dentist to devise this plan of reconditioning the patient, who was most cooperative.

Unfortunately, the results were worse than the original gagging. The patient shortly began gagging when he merely picked up the toothbrush. Further psychological and psychiatric studies were made with no significant discoveries. The gagging continued to grow worse until eating became a problem. He finally extended the gagging to include the use of a fork or a spoon, and he had to resort to the use of his fingers in eating.

At the age of 22 he fell in love, became engaged to marry, but discovered to his horror that any attempt to kiss mouth-to-mouth resulted in gagging and retching. However, he could give and receive kisses elsewhere than on the mouth.

At the age of 23 he was forced to seek dental care. An examination could be done only under general anesthesia. The dental pathology was so extensive that two dental consultants were called upon for their opinions. All three recommended total extractions of upper and lower teeth. The patient agreed relievedly, since he had had many serious

toothaches which he had been forced to endure without dental care except general medication.

General anesthesia was required for the extraction and the preparation of the dentures, and these were fitted in place while the patient was under general anesthesia. To help him become adjusted to the dentures he was heavily drugged first with morphine and then barbiturates.

With the lightening of his narcosis, he began gagging and retching.

After his mouth had healed completely, a new set of dentures was made and fitted in place by means of a general anesthesia. They led only to gagging and retching despite every measure employed to help the patient.

During World War II he managed to enlist for "limited duty" but shortly received a medical discharge because he could not use dentures or eating implements. In civilian life he made an excellent marital, social, and economic adjustment. Repeatedly he was offered promotions that involved meeting people as a salesman if he would wear dentures. Altogether, 10 sets of dentures were made for him with no helpful results. His employer gladly retained him in the lesser occupational position.

In preparation for the dental meeting at which the author was to lecture, his dentist prepared a new set of dentures for him, using, as was customary, general anesthesia. The patient was carrying them in a box in his pocket. He was asked if he wished to be hypnotized and instructed to wear the dentures. He affirmed this to be his desire, but he explained, "First I want you to see this." Thereupon he opened the box, took out the dentures, and slowly moved them toward his mouth. When they were within two inches of his mouth, he began gagging and retching. Moving them away he stated, "That's why I didn't eat breakfast this morning."

With great insistence he was urged to put the dentures in his mouth long enough for the author to see them in place. He agreed to this, but it was noted that he suddenly began perspiring freely. Slowly, with rigid carefulness, he opened his mouth, inserted the dentures, breathing deeply and then holding his breath as his dentist had taught him. He was able to retain the dentures about eight seconds, by which time streams of perspiration were rolling down his face and the front of his shirt was wet with perspiration.

He was asked to put the dentures back in the box, and a simple technique of trance suggestion was employed. The patient developed a somnambulistic trance state within a few minutes. Various phenomena of the somnambulistic trance were demonstrated for the benefit of the audience and to deepen the patient's state of hypnosis. No attempt was made to have him wear the dentures in the hypnotic state. Such an attempt, it was thought, might jeopardize the possibility of success. Hence he was used to demonstrate the phenomena of deep hypnosis as a measure of ensuring extensive learning. Finally, contrary to the author's wishes, he abided by the audience's insistent demand for a test of denture wearing in hypnosis. The patient readily allowed his dentist to insert the dentures.

No evidences of discomfort were noted. The patient was then given carefully worded posthypnotic suggestions that he would not notice that he was wearing his dentures when he aroused from the trance state until he was asked to look into a mirror and to smile. He agreed to this readily and aroused upon appropriate suggestions. He had an amnesia for being in the trance and reiterated his statement that he was willing to be hypnotized. He was asked if his dentures were in the box in his pocket. He asserted that they were but that he hoped they would be in his mouth after he had been hypnotized. He was handed a mirror and asked to look at his smile. In a puzzled manner he took the mirror, but as he looked into it, he was obviously most startled. He immediately took the box out of his pocket and found it to be empty. His bewildered behavior was delightful to observe. A member of the audience asked if he would like a steak for luncheon. He stated he would.

The rest of the story is simple. He ate a steak for luncheon in the company of a large group of dentists. He had a second steak for dinner and a third just before midnight, still surrounded by interested dentists. He went home the next morning in the company of his dentist.

All this occurred in the early part of March. Upon arriving at home, his employer gave him a promotion to begin on Monday of the next week. His dentist, whose office was located next to the building where the man was employed, checked daily on the patient's wearing of his dentures. The patient kissed his wife on the mouth for the first time in their 20 years of marriage, and he also kissed his children.

For two months the author received weekly reports from the dentist, whose inquiries had disclosed that the patient was unwilling at first to take his dentures out even to wash them. Then in June letters were received from both the dentist and the patient to the effect that all was well. Another such letter from the dentist was received in July. In August the patient and the dentist went on a fishing trip. All went well. During this fishing trip the patient expressed much appreciation for what had been done for him.

Then on the morning of September 23 the patient awakened, chatted briefly with his wife, and then remarked casually that he was leaving his dentures at home that day. His wife protested, but unemotionally he remarked that it just "seemed to be a good idea." His employer was out of town, and the dentist did not see him that day. In the evening his wife asked him to wear his dentures for dinner. He refused to do so, and she was too bewildered to ask for an explanation.

The patient sat down to dinner, but as the first forkful of food approached his mouth, he gagged. His wife leaped up, secured the dentures, and handed them to him, telling him to put them in his mouth. As he started to do so, he gagged.

He ate the evening meal with his fingers. His wife accompanied him to the dentist the next morning, taking the dentures with her. The dentist induced a deep trance but elicited only the explanation that he did not want to wear the dentures. No additional explanation could be elicited. He manifested no emotional disturbance. His unwillingness to wear his

dentures seemed to be no more than a simple statement expressive only of a matter-of-fact attitude.

A long distance telephone call to the author by the dentist led to the advice to refrain from making any issue of the matter. Accordingly, the dentist so instructed the patient's wife, and she accepted the advice.

Two weeks later the patient wrote a simple straightforward account of what had happened, of his intention of not wearing his dentures, of his willingness to be demoted by his employer to his original position, and of his wife's statement that all had gone reasonably well previously and probably would again. He stated further that he knew of no reason for abandoning his dentures, that he regretted disappointing everybody, but that life seemed to be as satisfying one way as another.

A year later the dentist wrote that the patient was contentedly adjusting without his dentures, that the topic of denture-wearing had long been closed, and that the patient and his family were doing well despite the return to the previous lower income.

Another year later the situation was unchanged. The patient, in reply to questions, stated that the only possible explanation that had occurred to him was that the long years without dentures had fully accustomed him to their absence, that he was not sure of this as an adequate explanation, but that he could think of no other explanation. Moreover, he did not mind the requisite adjustment to their absence nor did he feel any loss in not using them nor any desire to return to their use. To a specific question he replied that he now could not understand why he had formerly wanted to wear dentures.

The author has no understanding of the course of events with this patient. Successful therapy was apparently achieved, enjoyed for months by the patient, and then apparently abandoned for no known reason and without regret. The man adjusted well before the extraction of his teeth, and except for his medical discharge from military service, he adjusted well in the edentulous state. He adjusted well during the months of wearing the dentures, and he adjusted well after discarding them. The family dentist and the psychiatrist and the psychologist friends all found nothing of note in their association with the man and his family that would be considered as offering even a semblance of an explanation of the patient's behavior.

## **Special Techniques of Brief Hypnotherapy**

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The development of neurotic symptoms constitutes behavior of a defensive, protective character. Because it is an unconscious process, and thus excluded from conscious understandings, it is blind and groping in nature and does not serve personality purposes usefully. Rather it tends to be handicapping and disabling in its effects. Therapy of such distorted behavior ordinarily presupposes that there must be a correction of the underlying causation. However, such correction, in turn, presupposes not only a fundamental willingness on the part of the patient for adequate therapy but also an actual opportunity and situation conducive to treatment. In the absence of one or both of these requisites, psycho-therapeutic goals and methods must be reordered to meet as adequately as possible the total reality situation.

In attempting such modified psychotherapy the difficult problem arises of what can really be done about neurotic symptomatology where the realities of the patient and his life situation constitute a barrier to comprehensive treatment. Efforts at symptom removal by hypnosis, persuasion, reconditioning, etc. are usually futile. Almost invariably there is a return to the symptomatology in either the same form or another guise, with increased resistance to therapy.

Equally futile, under such limiting circumstances, is any effort to center treatment around idealistic concepts of comprehensiveness, or, as is unfortunately too often the case, around the therapist's conception of what is needed, proper, and desirable. Instead, it is imperative that recognition be given to the fact that comprehensive therapy is unacceptable to some patients. Their total pattern of adjustment is based upon the continuance of certain maladjustments which derive from actual frailties. Hence, any correction of those maladjustments would be undesirable if not actually impossible. Similarly, the realities of time and situational restrictions can render comprehensive therapy impossible and hence frustrating, unacceptable, and actually intolerable to the patient.

Therefore, a proper therapeutic goal is one that aids patients to function as adequately and as constructively as possible under those handicaps, internal and external, that constitute a part of their life situations and needs.

Consequently, the therapeutic task becomes a problem of intentionally utilizing neurotic symptomatology to meet the unique needs of each patient. Such utilization must satisfy the compelling desire for neurotic handicaps, the limitations imposed upon therapy by external forces, and, above all, provide adequately for constructive adjustments aided

rather than handicapped by the continuance of neuroticisms. Such utilization is illustrated in the following case reports by special hypnotherapeutic techniques of symptom substitution, transformation, amelioration, and the induction of corrective emotional response.

## **SYMPTOM SUBSTITUTION**

In the two following case histories neither a willingness for adequate therapy nor a favorable reality situation existed. Hence therapy was based upon a process of symptom substitution, a vastly different method from *symptom removal*. There resulted a satisfaction of the patient's needs for defensive neurotic manifestations and an achievement of satisfactory adjustments, aided by continued neurotic behavior.

### **Patient A**

A 59-year-old uneducated manual laborer, who had worked at the same job for 34 years with the expectation of a pension at the end of 35 years, fell and injured himself slightly. He reacted with a hysterical paralysis of the right arm. The company physician agreed to one week's hospitalization. Then, if the patient had not recovered from his "nonsense" at the expiration of that time, he was to be discharged as mentally ill with forfeiture of his pension.

Examination of the man disclosed his arm flexed at the elbow and held rigidly across the chest, with the hand tightly closed. During sleep the arm was relaxed, and the original diagnosis of a hysterical disability was confirmed.

No history other than the above was obtained since the patient was uncommunicative and spent his waking time groaning and complaining about severe pain.

After enlisting the aid of two other physicians, an elaborate physical examination was performed. The findings were discussed with much pessimism and foreboding about his recovery. This was done in low tones, barely but sufficiently audible to the patient. Everybody agreed that it was an "inertia syndrome," but that hypnosis would have to be performed in order to confirm that diagnosis. The prognosis was solemnly discussed and everyone agreed that, if it were the serious condition suspected, its course would be rapid and characteristic. This progression of the disease would be characterized by a relaxation of the shoulder joint, permitting arm movement within the next two days. Unfortunately, this would be accompanied by a "warm, hard feeling" in the right wrist. Then the elbow would lose its stiffness, but this would settle in the wrist. Finally, within the week's time, the fingers would relax and their stiffness would also settle in the wrist. This wrist stiffness would lead to a sense of fatigue in the wrist, but only upon use of the right arm. During rest and idleness there would be no symptomatology. Impressive medical terminology was freely employed during this discussion, but every care was taken to ensure the desired understanding of it by the patient. The patient was approached about hypnosis and readily agreed. He developed a good trance, but retained his symptoms in the trance state.

A physical reexamination was enthusiastically performed, and the same discussion was repeated, this time in a manner expressive of absolute conviction. With definite excitement, one of the physicians discovered signs of relaxation of the shoulder muscles. The others confirmed his discovery. Then "tests" applied disclosed . "early changes in the first, fourth, and fifth nerves" of the elbow. All agreed, after solemn debate, that the second and third nerve changes should be slower, and that the general pattern left no doubt whatsoever about the diagnosis of "inertia syndrome," and its eventual and rapid culmination in a permanent wrist impairment. All agreed that there would be free use of the arm and that the wrist fatigue would be apparent but endurable during work. Everyone was pleased that it was a physical problem that could be surmounted and not a mental condition.

The patient's progress was exactly as described to him. Each day the physicians solemnly visited him and expressed their gratification over their diagnostic acumen.

He was discharged at the end of the week with his stiff wrist. He returned to work, completed the year, and was retired on a pension. The wrist had troubled him with its fatigability but had not interfered with his work. Upon retiring all symptomatology vanished.

However farcical the above procedure may seem in itself, it possessed the remarkable and rare virtue of being satisfying to the patient as a person and meeting his symptomatic needs adequately.

## Patient B

A factory laborer, following a minor injury at work, developed a hysterical paralysis of the right arm which invalidated him. A settlement had been made which would be exhausted in less than another year. At the insistence of the company physician he was sent to the writer for hypnotic therapy. The patient was antagonistic toward treatment, felt that the company was victimizing him, and stated that he would agree to only three sessions.

On taking his history it was learned that, several years previously, he had had removed by hypnotic suggestion a paralysis of the left leg. However, shortly after his "recovery," his left arm became paralyzed. Again hypnotic suggestion had effected a cure, followed shortly by a right leg paralysis. This, too, had been cured by hypnotic suggestion, and now he had a right arm paralysis.

This background suggested both the inadvisability of direct hypnosis and a need by the patient for some neurotic handicap.

Accordingly, the company physician was immediately consulted and therapeutic plans outlined. He agreed to them and promised full cooperation on the part of the company for a work placement for the patient.

A therapeutic approach was made by bringing out medical atlases and discussing endlessly and monotonously, in pseudo-erudite fashion, muscles, nerves, blood vessels, and lymphatic channels. This discussion was increasingly interspersed with trance suggestions until the patient developed a somnambulistic trance state.

The whole discussion was then repeated, and to it was added the reading from textbooks of carefully chosen sentences describing the fleeting, evanescent, and changing symptoms of multiple sclerosis and other conditions, interspersed with illustrative, fabricated case histories. The possibility of a comparable changing symptomatology for him and its possible and probable establishment in a permanent fashion was insidiously and repetitiously hinted.

The next two sessions were of a comparable character, except for the fact that numerous pseudo-tests were made of the nerves in his arms. These tests were interpreted conclusively to signify that a certain final, permanent disability would be an inevitable development. This would be the loss of the functioning of his right little finger but with full use otherwise of the whole arm.

The third session was completed by a review of the pseudo-test findings and a consultation of the medical atlases, with numerous references to textbooks. All this led to the inevitable conclusion that within another month there would be a numbness and stiffness of his little finger, which would always be slightly unpleasant but which would not interfere with his employment.

Approximately a month later the patient volunteered to relinquish half of the remaining weekly disability for a lump sum settlement and reinstatement at work. This was granted, and he applied the money to the mortgage on his home. The company physician secured a placement where a disabled right little finger did not constitute a problem.

Three years later the man was still steadily and productively employed. However, he had informed the company physician that the writer was mistaken in one regard. This was that his finger was not constantly crippled but that the condition waxed and waned from time to time, never really causing difficulty but merely making itself apparent.

## **Comment**

Little discussion of these two case histories is necessary. Apparently both patients desperately needed a neurotic disability in order to face their life situations. No possibility existed for the correction of causative underlying maladjustments. Therefore, as therapy, there was substituted for the existing neurotic disability another, comparable in kind, non-incapacitating in character, and symptomatically satisfying to them as constructively functioning personalities. As a result both received that aid and impetus that permitted them to make a good reality adjustment.

Although more in the way of understanding the total problem could be desired, the essential fact remains that the patients' needs were met sufficiently well to afford them the achievement of a satisfying, constructive personal success.

## **SYMPTOM TRANSFORMATION**

In the next two case histories the therapeutically restricting factors were the limitations imposed by time and situational realities. Accordingly, therapy was based upon a technique of *symptom transformation*. While seemingly similar to symptom substitution, it differs significantly in that there is a utilization of neurotic behavior by a transformation of the personality purposes served without an attack upon the symptomatology itself.

In understanding this technique it may be well to keep in mind the patter of the magician, which is not intended to inform but to distract so that his purposes may be accomplished.

### **Patient C**

During the psychiatric examination, a selectee, otherwise normal in his adjustment, disclosed a history of persistent enuresis since the age of puberty. Though much distressed by this, he had otherwise made a good social, personal, and economic adjustment. However, because of his enuresis, he had never dared to be away from home overnight, although he had often wished to visit his grandparents and other relatives who lived at a considerable distance. Particularly did he wish to visit them because of impending military service. He was much distressed to learn that enuresis would exclude him from service, and he asked urgently if something could be done to cure him. He explained that he had taken barrels of medicine, had been cystoscoped, and numerous other procedures had been employed upon him—all to no avail.

He was told that he could probably get some effective aid if he were willing to be hypnotized. To this he agreed readily, and he developed a profound trance quickly. In this trance state he was assured most emphatically that his bed-wetting was psychological in origin and that he would have no real difficulty of any sort in overcoming it if he obeyed instructions completely.

In the form of posthypnotic suggestions he was told that, upon returning home, he was to go to the neighboring city and engage a hotel room. He was to have his meals sent up to him, and he was to remain continuously in that room until three nights had elapsed. [The rationale of three nights was simply this: If the plan were effective, the first night would be one of doubt and uncertainty, the second would be one of certainty, and the third would bridge a transition from bed-wetting anxiety to another anxiety situation.] Upon entering the room he was to make himself comfortable, and he was to begin to think about how frightened and distressed he would be when the maid, as his mother always did, discovered a wet bed the next morning. He was to go over and over these thoughts, speculating unhappily upon his inevitable humiliated, anxious, and fearful reactions.

Suddenly the idea would cross his mind about what an amazing but bitter joke it would be on him if, after all this agonized thinking, the maid were surprised by a dry bed.

This idea would make no sense to him, and he would become so confused and bewildered by it that he would be unable to straighten out his mind. Instead, the idea would run through his mind constantly, and soon he would find himself miserably, helplessly, and confusedly speculating about his shame, anxiety, and embarrassment when the maid discovered the dry bed instead of the wet bed he had planned. This thinking would so trouble him that finally, in desperation, he would become so sleepy that he would welcome going to bed, because, try as he might, he would not be able to think clearly.

Then the next morning his first reaction would be one of abject fear of remaining in the room while the maid discovered the dry bed. He would search in his mind frantically for some excuse to leave, would fail, and have to stare wretchedly out of the window so that she would not see his distress.

The next day, beginning in the afternoon, the same bewildered, confused thinking would recur with the same results, and the third day would be another repetition of the same.

He was told further that, upon checking out of the hotel after the third night, he would find himself greatly torn by a conflict about visiting his grandparents. The problem of whether he should visit the maternal or the paternal set of grandparents first would be an agonizing, obsessional thought. This he would finally resolve by making the visit to the first set one day shorter than that to the second. Once arrived at his destination, he would be most comfortable and would look forward happily to visiting all of his relatives. Nevertheless, he would be obsessed with doubts about which to visit next, but always he would enjoy a stay of several days.

All of these suggestions were repetitiously reiterated in an effort to ensure the implantation of these pseudo-problems and to effect a redirection of his enuretic fears and anxieties and a transformation of them into anxieties about visits with relatives, and not anxiety about a wet bed for his closest relative, his mother.

Finally he was dismissed after approximately two hours' work with a posthypnotic suggestion for a comprehensive amnesia. Upon awakening he was told briefly that he would be recalled in about three months and that he would undoubtedly be accepted for military service then.

About 10 weeks later he was seen again by the writer as the consultant for the local draft board. He reported in detail his "amazing experience" at the hotel with no apparent conscious awareness of what had occasioned it. He explained that he "almost went crazy in that hotel trying to wet that bed, but I couldn't do it. I even drank water to be sure, but it didn't work. Then I got so scared I pulled out and started to visit all my relatives. That made me feel all right, except for being scared to death about which one to see first, and now I'm here."

He was reminded of his original complaints. With startled surprise he replied, "I haven't done that since I went crazy in the hotel. What happened?"

Reply was made simply that what had happened was that he had stopped wetting the bed and now could enjoy a dry bed.

Two weeks later he was seen again at the induction center, at which time he was readily accepted for service. His apparent only anxiety was his concern about his mother's adjustment to his military service.

### **Patient D**

A selectee, greatly interested in entering military service, disclosed upon psychiatric examination a rather serious, closely circumscribed neurosis which embarrassed him tremendously. His difficulty lay in the fact that he was unable to urinate unless he did so by applying an 8- or 10-inch wooden or iron pipe to the head of the penis, thus urinating through the tube.

Since, in all other regards, he seemed to be reasonably well adjusted and had a good work and social history, the conclusion was reached that the man might be amenable to brief hypnotherapy.

His history disclosed that as a small boy he had urinated through a knothole in a wooden fence bordering a golf course. He was apprehended from in front and behind and was severely punished, embarrassed, and humiliated. His reaction had been one of a repetition compulsion, which he had solved by securing a number of metal or wooden tubes. These he had carried with him constantly. He gave his story frankly and fully, though much embarrassed by it.

A deep trance was readily induced, and the history already given was confirmed. His attitude toward military service was found to be good, and he was actually willing to enter military service with his handicap, provided it occasioned him no significant embarrassment.

A long, detailed explanation in the form of posthypnotic suggestions was given to him about how this could be done. He was urged to secure a length of bamboo 12 inches long,\* to mark it on the outside in quarter inches, to use that in urinating. This he was to hold with his thumb and forefinger, alternately with the right and left hand as convenient, and to flex the other three fingers around the shaft of the penis. Additionally, he was instructed to try with his thumb and forefinger to sense the passage of urine through the bamboo. No actual mention was made of feeling the passage of urine through the urethra with the other fingers. He was also told that in a day or two, or a week or two, he might consider how long the bamboo needed to be and whether or not he could saw off  $\frac{1}{4}$ ,  $\frac{1}{2}$  or even 1 inch, but that he need not feel compelled to do so. Rather he should let any reduction in the length of the bamboo come about easily and comfortably, and he should be interested only in wondering on what day of the week he might reduce the length of

bamboo. Also, he was told to be most certain to have the three fingers grasping the shaft of the penis so that he could notice better the flow of urine through the bamboo. As for military service, he would be rejected at the present, but arrangements would be made to have him called up in three months' time for a special psychiatric examination. At that time he would undoubtedly be accepted.

\* A tube definitely longer than those he had been using was suggested. His acceptance of the longer tube, constituted a reality acknowledgment that the writer could do something about the tube—namely, make it longer. Equally significant is the unrecognized implication that the writer could make it shorter. Additionally, the tube was neither wood nor iron, it was bamboo. Thus, in essence, three transformation processes—longer, shorter, and material—had been initiated.

The interview was closed with two final, posthypnotic suggestions. The first was directed to a total amnesia for the entire trance experience. The other was concerned with the securing and preparation of the bamboo with no conscious understanding of the purpose.

About three months later his local draft board sent him for a special psychiatric examination to the writer, the consulting psychiatrist for that draft board. The young man was surprised and delighted. He explained that he had obeyed instructions, that he had been greatly astonished and bewildered to find himself buying the bamboo and then much embarrassed by the sudden rush of memories. At first distressed by his violation of the amnesia instructions, he soon began to develop a tremendous sense of hope and belief that he would solve his problem. He practiced urinating with the bamboo tube for about a week, then reached the conclusion that he could saw off about  $\frac{1}{16}$  inch, and was much puzzled when he actually sawed off a full inch. This pleased him greatly, and he wondered when he would saw off some more, and he realized suddenly that it would occur on a Thursday. (Why Thursday could not be explained.) On that occasion he sawed off 2 inches, and a few days later another inch. At the end of the month he had a  $\frac{1}{4}$  inch ring of bamboo left. While using it one day, he realized that the flexion of the three fingers around the shaft of the penis gave him a natural tube. Therefore, he discarded the remains of the original bamboo and took great delight in urinating freely and comfortably. He did so with both the right and left hand and even experimented by extending the little finger; then he realized that he could urinate freely without resort to any special measure. He was then taken to the lavatory and asked to demonstrate. He immediately raised the question, "Where are you going to stand? Behind me?" Thereupon he laughed and said, "This is not a board fence. That belongs in my past history. You can stand where you want. It makes no difference to me."

A week later he was called up for induction. He was amused by his past difficulties and wondered why he had not had "enough brains" to figure out his particular problem by himself. He was assured that people usually do not know how to handle such simple things, that they have difficulty because of trying too hard.

The total duration of the therapeutic trance, somnambulistic in character, was less than an hour.

The entire procedure and its outcome demonstrate the ease and effectiveness with which symptomatology can be utilized to secure a transformation of a neurotic problem. The incapacitating wooden or metal tube was transformed into bamboo, then into the cylinder formed by the middle, third, and little finger, and then into the tube constituted by the phallus.

### **Comment**

In both of these patients anxiety, precipitated by unhappy reactions of other people, existed in relation to a natural function. Therapy was accomplished by systematically utilizing this anxiety by a process of redirecting and transforming it. By thoroughly confusing and distracting Patient C, his anxiety about a wet bed was transformed into anxiety about a dry bed. Then his anxiety about his wet bed-home relationships was transformed into anxiety about relatives. The final transformation became that of his mother's anxiety about his military service.

For Patient D the transformation of anxiety progressed from: kind of tube; to sensing the passage of urine; to the shortening of the tube; to the question of the day for shortening the tube; and finally, into the unimportant question of where the writer would stand.

Thus, for both patients, the utilization of anxiety by a continuance and a transformation of it provided for a therapeutic resolution into a normal emotion permitting a normal adjustment, known to have continued for nine months while in service. Contact was then lost.

### **SYMPTOM AMELIORATION**

Not infrequently in neurotic difficulties there is a surrender of the personality to an overwhelming symptom-complex formation, which may actually be out of proportion to the maladjustment problem. In such instances therapy is difficult, since the involvement of patients in their symptomatology precludes accessibility. In such cases a technique of symptom amelioration may be of value. In the two following cases an overwhelming, all-absorbing symptom-complex existed; therapy had to be based upon an apparently complete acceptance of the symptoms, and it was achieved by ameliorating the symptoms.

### **Patient E**

A 17-year-old, feeble-minded boy made poor adjustment when sent to a training school for delinquents. Within a month he had developed a rapidly alternating flexion and extension of the right arm in the horizontal plane at the cardiac level. When he was seen some six weeks later in the hospital, a diagnosis had been made of a hysterical reaction, probably on the basis of masturbation fears and his maladjustment in the training school. Physical examination disclosed essentially a glove anesthesia extending up to the elbow of the right arm and the rapid (135 times a minute) flexion and extension of that arm.

Both the anesthesia and the muscular activity disappeared upon physiological sleep and reappeared upon awakening.

Because of his low intelligence, I.Q. 65, efforts at psychotherapy proved futile, and hypnotherapy was suggested.

Accordingly, hypnosis was employed in daily sessions for three weeks before a sustained trance could be obtained. Although he went into a trance readily, he would immediately drift into physiological sleep and would have to be awakened and a new trance induced. Finally, by the measure of hypnotizing him in the standing position and walking him back and forth, a prolonged trance could be secured. The trance state, however, had no effect upon his symptoms.

Efforts made to reduce the frequency of his arm movements failed. His only response was, "Can't stop. Can't stop." Similarly, efforts to discuss his problem or to elicit information failed. His communications were in essence, "My arm, my arm, I can't stop it."

After daily sessions for a week, during which time an intern ostentatiously made repeated counts each day of the movements per minute, a new technique was devised. This was simply a measure of suggesting that the rate would be increased from 135 to 145 per minute and that this increased rate would persist until seen again. The next day the suggestion was offered that it would decrease to the usual 135 until seen again. Again it was increased to 145 and again decreased to 135. After several such repetitions, with the count checked repeatedly by the intern and found to be approximately correct, further progress was made by suggesting alternating increments and decrements—respectively, 5 and 10 points—of the rate of the arm movement. This was continued day after day until a rate of 10 per minute was reached. Then the technique was reversed to increase the rate to 50 movements per minute. Again it was reduced to a rate of 10 per minute. Suggestion was offered that this rate would continue for a few days, then drop to 5 per minute, and then "increase" to 20 or 30 or more a day. A few days later the rate shifted from 5 per minute to scattered, isolated movements per day. The patient himself kept count of these, the daily total ranging around 25. Next the suggestion was given that this count would diminish day by day until it was around 5, and then it would "increase to as high as 25 times a week." The patient responded as suggested, and then he was asked to "guess on what day" there would be no uncontrolled movements.

Shortly he "guessed" the day when no movements would occur and demonstrated the correctness of his conjecture.

Further "guessing" on the patient's part led within a few days to his demonstration that he was free of his disability and was continuing so. During the process of diminishing the arm movement symptom, there was noted a parallel behavior of the glove anesthesia. It waxed and waned in direct relation to the arm activity. It vanished along with that symptom.

A month later he was returned to the training school and intentionally assigned to the task of kneading bread dough by hand in the institutional bakery. A year later he was still adjusting satisfactorily.

## Patient F

A mental hospital employee was referred to the writer because of sudden acute blindness which had developed on his way to work that morning. He was led into the office in a most frightened state of mind. Hesitantly and fearfully he told of having eaten his breakfast that morning, laughing and joking with his wife, and of suddenly becoming extremely disturbed by some risqué story his wife related. He had angrily left the house and decided to walk to work instead of taking the bus as was his usual custom. As he rounded a certain street corner, he suddenly became blind. He had developed a wild panic, and a friend passing along the highway in a car had picked him up and brought him to the hospital. The ophthalmologist had examined him immediately and then referred him to the writer. The man was much too frightened to give an adequate story. He did state that he and his wife had been quarreling a great deal recently and that she had been drinking at home; he had found hidden bottles of liquor. She had vigorously denied drinking.

When asked what he was thinking about as he left the house, he explained that he was much absorbed in his anger at his wife, feeling that she should not be telling off-color stories, and that he had a vague feeling of apprehension, believing that he might be heading for the divorce court.

He was asked to trace his steps mentally from his home up to the point of the sudden onset of his blindness. He blocked mentally on this. He was asked to describe that particular street corner, and his reply was that, although he had walked around it many, many times, he could not remember anything about it, that his mind was a total blank.

Since the street corner involved was well known to the writer, various leading questions were asked without eliciting any material from him. He was then asked to describe exactly how the blindness had developed. He stated that there had occurred a sudden flash of intense redness, as if he were staring directly into a hot, red sun. This redness persisted and, instead of seeing darkness or blackness, he was seeing nothing but a brilliant, blinding, saturated red color. He was oppressed by a horrible feeling that for all the rest of his life, he would never be able to see anything but an intense, glaring red. With this communication the patient became so hysterically excited that it was necessary to sedate him and put him to bed.

After the patient had been put to bed, his wife was summoned to the hospital. With much difficulty, and after many protestations of unfailing love for her husband, she finally confirmed her husband's story of her alcoholism. She refused to relate the story that had precipitated the quarrel, merely stating that it had been a risqué story about a man and a redhead girl which had really meant nothing.

She was told where her husband had developed his sudden blindness and asked what she knew about the street corner. After much hedging she recalled that there was a service station on the opposite side of the street. This she and her husband often patronized in buying gas for their car. After still further insistent questioning, she recalled a service station attendant there who had brilliant red hair. Then finally, after many reassurances, she confessed to an affair with the attendant, commonly known as "Red." On several occasions he had made unduly familiar remarks to her in her husband's presence, which had been intensely resented. After much serious thinking she declared her intention to break off the affair, if the writer would cure her husband of his blindness, and demanded professional secrecy for her confidences. Her husband's unconscious awareness was pointed out to her, and she was told that any further betrayal would rest entirely upon her own actions.

When the patient was seen the next day, he was still unable to give any additional information. Efforts were made to assure him of the temporary nature of his blindness. This reassurance he was most unwilling to accept, and he demanded arrangements to be made to send him to a school for the blind. With difficulty he was persuaded to accept therapy on a trial basis, but on the condition that nothing be done about his vision. When he finally consented, the suggestion of hypnosis was offered as an appropriate, effective therapy for his purposes. He immediately asked if he would know what happened if he were in a trance. Such knowledge, he was told, could remain only in his unconscious, if he so wished, and thus would not occasion him trouble in the waking state.

A deep trance was readily induced, but the patient refused at first to open his eyes or test his vision in any way. However, further explanation of the unconscious mind and of amnesia and posthypnotic suggestions induced him to recover his vision in the trance state. He was shown the writer's bookplate and instructed to memorize it thoroughly. This done, he was to awaken, again blind, and with no conscious knowledge of having seen the bookplate. Nevertheless, he would, upon a posthypnotic cue, describe it adequately to his own bewilderment. As soon as he understood, he was awakened and a desultory conversation was begun.

This he interrupted upon the posthypnotic signal to give a full description of the bookplate. He was tremendously puzzled by this, since he knew he had never seen it. Confirmation of his description by others served to give him a great but mystified confidence in the therapeutic situation.

Upon rehypnosis he expressed complete satisfaction with what had been done and a full willingness to cooperate in every way. Asked if this meant he would confide fully in the writer, he hesitated, then determinedly declared that it did.

Special inquiry among his fellow workers on the previous day had disclosed him to have a special interest in a red-haired female employee.

By gentle degrees the question of this interest was raised. After some hesitation he finally gave a full account. Asked what his wife would think of it, he defensively asserted that she was no better than he, and he asked that the matter be kept in confidence.

Immediately, the questioning was shifted to a description of the street corner. He described it slowly and carefully but left mention of the gas station to the last. In a fragmentary fashion he described this, finally mentioning his suspicions about his wife and the red-haired attendant.

He was asked if his suspicions began at the time of his own interest in the red-haired girl, and what did he think he wanted to do about the entire situation.

Thoughtfully, he declared that, whatever had happened, they were both equally guilty, especially since neither had endeavored to establish a community of interests.

Inquiry was then made about his wishes concerning his vision. He expressed fear of recovering it immediately. He asked if the "horrible, bright redness" could be made less glaring, with now and then brief flashes of vision which would become progressively more frequent and more prolonged until finally there was a full restoration. He was assured that everything would occur as he wished, and a whole series of appropriate suggestions was given.

He was sent home on sick leave, but returned daily for hypnosis, accompanied by his wife. These interviews were limited to a reinforcement of the therapeutic suggestions of slow, progressive visual improvement. About a week later he reported that his vision was sufficiently improved to permit a return to work.

About six months later he returned to state that he and his wife had reached an amicable agreement for a divorce. She was leaving for her home state and he had no immediate plans for the future. His interest in the red-haired girl had vanished. He continued at his work uneventfully for another two years and then sought employment elsewhere.

## **Comment**

The procedure with these two patients was essentially the same. The underlying causation was not therapeutically considered. Patient E's intellectual limitations precluded this, and Patient F had demonstrated the violence of his unwillingness to face his problem. Hence for both an amelioration of the overwhelming symptom formation was effected. By a process of alternating increments and decrements a control of E's symptom complex was effected.

For Patient F the reduction of the blinding redness, permission to remain blind and yet to have progressively more frequent and clearer flashes of vision was a parallel procedure.

As a consequence of the amelioration of their symptoms both patients were enabled to make their own personal adjustments.

## **CORRECTIVE EMOTIONAL RESPONSE**

The following case histories concern intensely emotional problems. Therapy was achieved in one case by a deliberate correction of immediate emotional responses without rejecting them and the utilization of time to palliate and to force a correction of the problem by the intensity of the emotional reaction to its definition.

For the second patient the procedure was the deliberate development, at a near-conscious level, of an immediately stronger emotion in a situation compelling an emotional response corrective, in turn, upon the actual problem.

### **Patient G**

An attractive social service student at the hospital entered the writer's office one evening without an appointment. She was clad in scanty shorts and a halter and she sprawled out in the armchair, declaring, "I want something." Reply was made, "Obviously so, or you would not be in a psychiatrist's office." Coquettishly she expressed doubt about wanting psychotherapy and was informed that an actual desire was necessary for therapeutic results.

After some silent thinking she declared that she needed and wanted psychotherapy, that she would state her problem, and then the writer could decide if he were willing to have her as a patient. She expressed the belief, however, that upon hearing her problem, she would probably be ejected from the office.

Thereupon she plunged into her story: "I have a prostitution complex—for the past three years—I want to go to bed with every man I see—most of them are willing—it doesn't make any difference what they are or who they are, drunk or sober, old or young, dirty or clean, any race, anything that can look like a man. I take them singly, in groups, any time, any place. I'm disgusting, filthy, horrible. But I've got to keep on doing it and I want to stop. Can you help me or should I go?"

She was asked if she could control her activities until the next session. Her reply was, "If you'll take me as a patient, I won't do anything tonight. But I will have to give you a new promise in the morning and another at night and keep that up every day until I'm over it."

She was told that she could have the next three days to test her sincerity, and for those three days she reported twice daily at the office to renew her promises. This promise renewal became a routine for her.

During a three-hour session on the fourth day, the patient devoted herself to an intense, verbal self-flagellation by recounting in full detail first one and then another of her experiences. With extreme difficulty she was induced to give such facts as her full name, birth date, home address, etc. Only by constant interruption of her accounts was it possible to secure the following limited additional history:

Her mother was a “shallow-minded social climber, a complete snob, who is peaches and cream to those she thinks useful and a back-biting cat to everybody else. She rules my father and me by shrill shrieking. I hate her.”

Her father was a “big businessman, a nice guy with plenty of money, means well, I love him, but he’s nothing but a dirty, stinking grease-spot under my mother’s thumb. I’d like to make a man out of him so he’d slap her down.”

Both parents taught her to “hate sex, it’s nasty they say, and they haven’t ever to my knowledge slept in the same bedroom. I’m the only child. I hate sex, and it should be beautiful.”

With that she launched into a continuance of her verbal self-flagellation for the rest of the session.

The next three-hour session was equally futile. She devoted herself, despite numerous attempts at interruption, to a bitter, morbid, repetitious account of her experiences.

At the following session, as she entered the office, she was told emphatically, “Sit down, shut up, and don’t you dare to open your mouth!”

Peremptorily she was told that the writer would thenceforth take charge of all interviews, that no more time would be wasted, that the course of therapy would be dictated completely by the writer, and that she was to express her agreement by nodding her head and keeping her mouth shut. This she did.

Thereupon, with little effort, a deep, somnambulistic trance was induced, and she was told that thenceforth she would have an amnesia for trance experiences unless otherwise indicated by the writer.

Despite the trance state, however, she was found to be no more accessible than in the waking state—with one exception. She did not speak unless so instructed, but when she did talk, it was exclusively on the subject of her affairs. No more history could be obtained.

Efforts to circumvent her compulsive narration by disorientation, Crystal-gazing, automatic writing, and depersonalization resulted only in more specific, detailed accounts.

At the next session, in a deep, somnambulistic trance, she was instructed emphatically:

We both want to know why you are so promiscuous. We both want to know the cause of your behavior. *We both know that that knowledge is in your unconscious mind.*

For the next two hours you will sit quietly here, thinking of nothing, doing nothing, just knowing that your unconscious is going to tell you and me the reason for your behavior.

*It will tell the reason clearly, understandably, but neither you nor I will understand until the right time comes, and not until then.*

You don't know how your unconscious will tell. I won't know what it tells until after you do, but I will have the reason, and at the right time, in the right way, you will know and I will know. Then you will be all right.

At the end of two hours she was told that the time had come for her unconscious to tell the reason. Before she had time to get frightened, she was handed a typewritten sheet of discarded manuscript. (See Appendix for discussion of this kind of technique.) She was then told:

Look at this—it's a typewritten page—words, syllables, letters. Don't read it—just look at it. The reason is there—all the letters of the alphabet are there, and they spell the reason. You can't see it. In a minute I'm going to lock that sheet up in my desk with the reason unread. When the times comes, you can read it, but not until then.

Now put the sheet face up on the desk, take this pencil, and in a random fashion, in a scrambled fashion, *underline those letters, syllables, words that tell the reason—quickly.”*

In a puzzled manner she rapidly made nine scattered underlinings, while the writer made a numerical notation on another sheet, of the relative positions of the underlinings.

Immediately the sheet was taken from her and locked up face down in a desk drawer.

Then she was told, "Only one thing remains to be done. That is to decide the time when the reason is to be fully known. Come back and tell me tomorrow. Now wake up."

Upon awakening, she was given an appointment for the next day and dismissed. She took her departure without giving her usual promise.

The next morning she again failed to appear to give her promise. However, she kept her late-afternoon appointment, explaining, "I almost didn't come because I have only two silly words to say. I don't even know if I'll keep any more appointments with you. Well, anyway, I'll say the two words—I'll feel better—'Three weeks.'"

The reply was made, "According to the calendar, that would be four o'clock, August the 15th." She answered, "I don't know."

Thereupon, using a posthypnotic cue, a deep trance was induced. She was asked if she had anything to say. She nodded her head. Told to say it, she uttered, "Three weeks, August 15th, four o'clock."

She was awakened and asked when she wanted another appointment. Her reply was that she would like to discuss her plans for the coming year and a possible thesis she might write.

For the next three weeks she was irregularly seen for discussion of her scholastic plans and extracurricular reading. There was no discussion of her problem nor were there any more promises.

During that three weeks she attended a party where a personable young man, newly arrived at the hospital and an advisee of the writer, attempted to seduce her. She laughed at him and gave him the choice of informing the writer of his misbehavior or having her relate it, and she succeeded in so intimidating him that he confessed.

At four P.M., August 15th, she entered the office, remarking, "It's four o'clock, August the 15th. I don't know why I'm here, but I had a strong feeling that I had to come. I wanted to and I didn't want to. There is something awfully scary about coming. I wish I didn't have to."

She was answered by, "You first came to me for therapy. Apparently you drifted away. Maybe so, maybe not. Our sessions were usually three hours long. I used hypnosis. Shall I hypnotize you, or can you finish therapy in the waking state? Just remember both your conscious and your unconscious mind are present. If you want to go to sleep, you can. But at all events, sit down in that chair, be quiet, and at the end of an hour, you name a time by saying, 'I'll be ready at ..... and give a specific time.'"

Uncomprehendingly she sat down and waited awake. At five o'clock she remarked, "I'll be ready at six-thirty," and continued to wait quietly in a puzzled fashion.

At six-thirty the desk drawer was unlocked and the sheet of paper handed to her.

She turned it over and around in a puzzled fashion, scrutinized the underlinings, suddenly paled, became rigid, gave voice to an inarticulate cry, and burst into choking, shuddering sobs, gasping repeatedly, "That's what I tried to do."

Finally, in better control of herself, she said, "The reason is here—read it."

The underlined material read:

i wa nt to f uc K f author\*

\*The actual numerical order of the underlining was:

1. to

2. i

3. nt

4. wa

5. uc

6. f

7. K

8. f

9. author, with a line joining 8 and 9.

She explained, "It was any man, every man, all the men in the world. That would include father. That would make him a man, not a grease spot under my mother's thumb. Now I know what I have been trying to do, and I don't have to any more. How horrible!"

She reacted by further intense sobbing but finally declared, "That's all in the past now. What can I do?"

The suggestion was offered that she undergo a complete physical examination to check the possibility of venereal disease. To this she agreed.

She completed her next year's training successfully and was not heard from until several years later. Then it was learned from a colleague that she was most happily married and is the mother of three children. Subsequent personal inquiry confirmed the happiness of her marriage.

### **COMMENT**

The entire management of this case was essentially that of a strong dictatorial father with a "bad" child. Her initial emotional attacks upon the writer were immediately corrected by a careful choice of words but without a nullification of her emotions.

Her contempt for her father was corrected by the acceptance of her identification of the writer as a father-surrogate and the utilization of absolute dictatorial authority over her and essentially forcibly continuing it.

The tremendously strong and compelling emotions deriving from her problem were corrected by the emotions of the waiting period, which culminated in the distressing, painful emotionality of the final session.

### **Patient H**

A young man, normally weighing 170 pounds, married a voluptuously beautiful girl, and his friends made many ribald jests about his impending loss of weight.

About nine months later he sought psychiatric advice from the writer because of two problems. One was that he no longer could tolerate his fellow workers jesting about his weight loss of over 40 pounds. More hesitantly he added that the real problem was something else entirely. In fact, it was the failure to consummate the marriage.

He explained that his wife promised each night to permit consummation, but at his first move she would develop a severe panic and would fearfully and piteously persuade him to wait until the morrow. Each night he would sleep restlessly, feeling intensely desirous and hopelessly frustrated. Recently, he had become greatly frightened by his failure to have an erection despite his increased sexual hunger.

He asked if there could be any help for either himself or his wife. He was reassured, and appointment was made for his wife. He was asked to tell his wife the reason for the consultation and to ask her to be prepared to discuss her sexual development since puberty.

They arrived promptly for an evening appointment, and he was dismissed from the room. She told her story freely, though with much embarrassment. She explained her behavior as the result of an uncontrollable, overpowering terror which she vaguely related to moral and religious teachings. Concerning her sexual history, she exhibited a notebook in which the date and hour of onset of every menstrual period had been recorded neatly.

Examination of this amazing record disclosed that for 10 years she had menstruated every 33 days, and that the onset was almost invariably around 10 or 11 A.M. There were a few periods not on the scheduled date. None of these was early. Instead, they were occasional delayed periods, recorded by actual date and with the scheduled date marked by an explanatory note such as, "Been sick in bed with bad cold." It was noted that her next period was not due for 17 days.

When asked if she wanted help in her marital problem, she first declared that she did. Immediately, however, she became tremendously frightened; sobbingly, and with much trembling she begged the writer to let her "wait until tomorrow."

She was finally quieted by the repeated assurance that she would have to make her own decision.

As the next measure she was given a long, vague, general discourse upon marital relations, interspersed more and more frequently with suggestions of fatigue, disinterestedness, and sleepiness until a fairly good trance state had been induced.

Then, accompanied by emphatic commands to ensure continuance of the trance, a whole series of suggestions was given insistently and with increasing intensity. These were to the effect that she might, even probably would, surprise herself by losing forever her fear by suddenly, unexpectedly, keeping her promise of tomorrow sooner than she thought. Also, all the way home she would be completely absorbed with a satisfying but

meaningless thought that she would make things happen too fast for even a thought of fear.

Her husband was seen separately and assured of a successful outcome for the night.

The next morning he reported ruefully that, halfway home, 17 days too early, her menstrual period began. He was relieved and comforted by the specious statement that this signified the intensity of her desire and her absolute intention to consummate the marriage. He was given another appointment for her when her period was over.

She was seen again on a Saturday evening. Again a trance was induced. This time the explanation was given her that a consummation must occur, and that the writer felt that it should occur within the next 10 days. Furthermore, she herself should decide when. She was told that it could be on that Saturday night or Sunday, *although the writer preferred Friday night*; or it could be on Monday or Tuesday night, *although Friday was the preferred night*; then again, it could be Thursday night, *but the writer definitely preferred Friday*. This listing of all the days of the week with emphasis about the writer's preference for Friday was systematically repeated until she began to show marked annoyance.

She was awakened and the same statements were made. Her facial expression was one of intense dislike at each mention of the writer's preference.

The husband was seen separately and told to make no advances, to be passive in his behavior, but to hold himself in readiness to respond, and that a successful outcome was certain.

The following Friday he reported, "She told me to tell you what happened last night. It happened so quick I never had a chance. She practically raped me. And she woke me up before midnight to do it again. Then this morning she was laughing, and when I asked her why, she told me to tell you that it wasn't Friday. I told her it was Friday and she just laughed and said you would understand that it wasn't Friday." No explanation was given to him.

The subsequent outcome was a continued, happy marital adjustment, the purchase of a home, and the birth of three wanted children at two-year intervals.

## **Comment**

The psychosomatic response of a 17-day early menstrual period in a woman so sexually rigid is a remarkable illustration of the intensity and effectiveness with which the body can provide defenses for psychological reasons.

The rationale of the 10-day period, the naming of the days of the week, and the emphasis upon the writer's preference may be recognized easily. Ten days was a sufficiently long period in which to make her decision and this length of time was, in effect, reduced to

seven days by naming them. The emphasis upon the writer's preference posed a most compelling, unpleasant, emotional problem. Since all the days of the week had been named, the passage of each day brought her closer and closer to the unacceptable day of the writer's preference. Hence, on Thursday, only that day and Friday remained. Saturday, Sunday, Monday, Tuesday, and Wednesday had all been rejected. There, consummation had to occur either on Thursday as her choice or on Friday as the writer's choice.

The procedure employed in the first interview was obviously wrong, but fortunately it was beautifully utilized by the patient to continue her neurotic behavior and to punish and to frustrate the writer for his incompetence.

The second interview was more fortunate. A dilemma she could not recognize of two alternatives was created for her—the day of her choice or of the writer's preference. The repeated emphasis upon the latter had evoked a strong, emotional response, corrective in effect upon her emotional problems. The immediate need to punish the writer and to frustrate his preference transcended her other emotional problem. The consummation effected, she could then taunt the writer with the declaration that last night was not Friday, happily secure that he would understand.

In brief, the resolution of this emotional problem, substantiated by the therapeutic results, was integral to, and contingent upon, an emotional response of corrective effect.

## **GENERAL COMMENTS**

Essentially the purpose of psychotherapy should be the helping of the patient in that fashion most adequate, available, and acceptable. In rendering the patient aid, there should be full respect for and utilization of whatever the patient presents. Emphasis should be placed more upon what the patient does in the present and will do in the future than upon a mere understanding of why some long-past event occurred. The sine qua non of psychotherapy should be the present and the future adjustment of the patient, with only that amount of attention to the past necessary to prevent a continuance or a recurrence of past maladjustments.

Why Patient H refused to permit a consummation of the marriage is of interest only to others, not to her—she is too happy with her children, her marriage, and her home to give even a passing, backward glance at the possible causation of her behavior. To assume that that original maladjustment must necessarily come forth again in some disturbing form is essentially to assume that good learnings have neither intrinsic weight nor enduring qualities but that the only persisting forces in life are the errors.

As an analogy, whatever may be the psychogenic causation and motivation of arithmetical errors in grade school, an ignorance thereof does not necessarily preclude mathematical proficiency in college. And if mathematical ineptitude does persist, who shall say that a potential concert violinist must properly understand the basic reasons for his difficulties in the extrapolation of logarithms before entering upon a musical career?

In other words, in this writer's opinion, as illustrated by the above case histories, the purposes and procedures of psychotherapy should involve the acceptance of what the patient represents and presents. These should be utilized in such a fashion that the patient is given an impetus and a momentum, making the present and the future become absorbing, constructive, and satisfying.

As for the patient's past, it is essential that the therapist understand it as fully as possible but without demanding or compelling the patient to achieve the same degree of special erudition. It is out of the therapist's understandings of the patient's past that better and more adequate ways are derived to help the patient to live in the future. In this way the patient does not become isolated as a neurosis of long duration to be dissected bit by bit, but can be recognized as a living, sentient human being with a present and a future as well as a past.

## **APPENDIX**

There are many variations of the technique used in the case of Patient G, and in the writer's experience they are all often useful, especially in expediting therapy. They are employed by impressing most carefully and emphatically upon a patient the idea that the unconscious mind can and will communicate highly important, even inaccessible, information central to a problem but not necessarily in an immediately recognizable form. Then, as a result of some concrete or tangible performance, the patient develops a profound feeling that the repressive barriers have been broken, that the resistances have been overcome, that the communication is actually understandable, and that its meaning can no longer be kept at a symbolic level.

Essentially, the procedure is a direct clinical utilization of projective test methodology, with the patient's performance committing him decisively to a direct, relatively immediate understanding.

1. The "random" selection from a shelf of a book or books, and thereby unwittingly designating a meaningful title.
2. The checking of dates on a calendar—in one instance a highly important, "forgotten" street address; in another, the age at which a strongly repressed traumatic experience occurred.
3. The spontaneous offer to "count the people in that cartoon" with an oversight of one of the children in it—secret doubts about the paternity of one of her own children.
4. The writing of a series of casual sentences with a misspelled word, a misplaced word, or varied spacing of words in one or more sentences.

5. The writing of a “silly” question-seeking instruction preparatory for marriage to George, she wrote, “Will I marry Harold?” who was known to her only as a casual acquaintance of a friend. She actually married a man named Harry.
6. Scrawling at random on paper, shading a line here and there, and subsequently “finding the lines that make a picture.”
7. Drawing a series of related or unrelated pictures, smudging or crossing out one or more partially or completely—the people on the street, with the old lady thoroughly smudged and his recognition of his mother—hostility.
8. The writing of a deliberately false, descriptive account of some casual event—15 people at that party had untidy, straight black hair and unduly long noses.
9. Writing a list of casual words and “underlining one or more which would be or should be difficult or impossible to talk about”—the list was one of various items observed while walking down the street with the one word *flowers* repetitiously included but not underlined—his repressed fears of being a latent “pansy.”
10. Tearing out an uninteresting advertisement from some magazine and bringing it to the next session—a picture of doughnuts and his sudden realization of the extent of his loss of interest in his wife.
11. Picking up and handing over something, just anything: in one instance a pencil stub—phallic inferiority; in another, a burned match—fear of beginning impotence.
12. Glancing briefly at each page in a newspaper. When this has been done, the additional instruction of, “Give a page number quickly”—the alimony story and secret fears about the marital situation.
13. “When you get up and move your chair to the other side of that table, your unconscious mind will then release a lot of important information. Perhaps it will take your unconscious even longer than five or ten minutes to do it, or perhaps it will not be until the next session”—ten years ago giving mother one-half hour early her four-hour dose of tonic and mother’s cardiac death five minutes later.
14. Writing to a dutifully loved father a letter filled with unreasonable complaints and hostility and handing it over to be read—an immediate, severe, psychogenic asthmatic attack.

# Pediatric Hypnotherapy

Milton H. Erickson

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As an introduction to what constitutes "Pediatric Hypnotherapy," the question may well be asked, What is the difference between hypnotherapy on the small-sized child, on the medium-sized child, on the large-sized child, and on that older, taller child we encounter so frequently in our offices? Therapy of any kind properly parallels the physical examination in adaptation to the patient as a reality object possessed of needs requiring recognition and definition. And any therapy used should always be in accordance with the needs of the patient, whatever they may be, and not based in any way upon arbitrary classifications.

Psychologically oriented forms of therapy properly employed need always be in relationship to the patient's capacity to receive and to understand. Pediatric hypnotherapy is no more than hypnotherapy directed to the child with full cognizance of the fact that children are small, young people. As such, they view the world and its events in a different way than does the adult, and their experiential understandings are limited and quite different from those of the adult. Therefore, not the therapy but only the manner of administering it differs.

In this connection, and of the utmost importance in the use of hypnosis, is the fact that there governs children, as growing, developing organisms, an ever-present motivation to seek for more and better understandings of all that is about them. This is one of the things that adults so often lose, and which facilitates so greatly the use of hypnosis with all patients.

Children have a driving need to learn and to discover, and every stimulus constitutes, for them, a possible opportunity to respond in some new way. Since the hypnotic trance may be defined, for purposes of conceptualization, as a state of increased awareness and responsiveness to ideas, hypnosis offers to the child a new and ready area of exploration. The limited experiential background of the child, the hunger for new experiences, and the openness to 'new learnings render the children good hypnotic subjects. They are willing to receive ideas, they enjoy responding to them—there is only the need of presenting those ideas in a manner comprehensible to them. This, as in all other forms of psychotherapy for all types of patients, is a crucial consideration.

But such presentation needs to be in accord with the dignity of the patient's experiential background and life experience—there should be no talking down to, or over the head of, the patient. There needs to be the simple presentation of an earnest, sincere idea by one person to another for the purpose of achieving a common understanding and a common

goal and purpose. The mother croons a lullaby to her nursing infant, not to give it an understanding of the words but to convey a pleasing sense of sound and rhythm in association with pleasing physical sensations for both of them and for the achievement of a common goal and purpose. The child that is cuddled properly, handled in an adequate way, placed at the breast in the right way with the proper "hypnotic touch" is not so likely to develop colic. By "hypnotic touch" is meant no more than the type of touch that serves to stimulate in the child an expectation of something pleasurable, and that is continuously stimulating to the child in a pleasing way.

It is the continuity of the experience that is of importance—it is not just a single touch or pat or caress, but a continuity of stimulation that allows the child, however short its span of attention, to give a continued response to the stimulus. So it is in hypnosis, whether with adults or children, but especially is it so with children. There is a need for a continuum of response-eliciting stimuli directed toward a common purpose.

The child at the breast needs the lullaby continued and the nipple between its lips, even after it has satisfied its hunger and is falling asleep. It needs those continuing stimuli until the physiological processes of sleep and digestion serve to replace them. Similarly in child hypnosis there is a need for a continuity of stimulation, either from without or from within, or a combination of both. Hypnosis, whether for adults or children, should derive from a willing utilization of the simple, good, and pleasing stimuli that serve in everyday life to elicit normal behavior pleasing to all concerned.

Another consideration in using hypnosis therapeutically with children is the general character of the approach to the child. No matter what the age of the child may be, there should never be any threat to the child as a functioning unit of society. Adult physical strength, intellectual strength, force of authority, and weight of prestige are all so immeasurably greater to children than their own attributes that any undue use constitutes a threat to their adequacy as individuals. And since hypnosis is dependent upon a cooperation in a common purpose, a feeling of goodness and adequacy is desirable for both participants. That sense of goodness and adequacy is not to be based upon a sense of superiority of one's own attributes, but upon a respect for the self as an individual dealing rightfully with another individual, with each contributing a full share to a joint activity of significance to both. There is a need, because of the child's lack of experiential background and understanding, to work primarily with, and not on, the child. The adult can better comprehend passive participation.

Nor can there be a linguistic condescension to the child. Comprehension of language always precedes verbal facility. There should not be a talking down to the child, but rather a utilization of language, concepts, ideas, and word pictures meaningful to children in terms of their own learnings. To speak in "baby talk" is usually an insult and a mockery, since any intelligent child knows that the adult possesses vocal facility. One does not imitate the accent of an adult, but one can use a word or phrase respectfully abstracted from the speech of the other. Thus one can speak of "dem bums", but cannot rightfully say "Toity-foist Street." So it is with infantile and childish vocalization.

Similarly, respect must be given to the child's ideational comprehension with no effort to derogate or minimize the child's capacity to understand. It is better to expect too great a comprehension than to offend by implying a deficiency. For example, the surgeon who told four-year old Kristi, "Now that didn't hurt at all, did it?" was told with bitter, scornful contempt, "You're poopid! It did, too, hurt, but I didn't mind it." She wanted understanding and recognition, not a falsification, however well-intended, of a reality comprehensible to her. For one to tell a child, "Now this won't hurt one bit" is courting disaster. Children have their own ideas and need to have them respected, but they are readily open to any modification of those ideas intelligently presented to them. Thus, to tell the child, "Now this could hurt a lot, but I think that maybe you can stop a lot of the hurt, or maybe all of it," constitutes an intelligent appraisal of reality for the child and offers an acceptable idea of a reasonable and possible responsive participation of an inviting character.

Children must be respected as thinking, feeling creatures, possessed of the capacity to formulate ideas and understandings and able to integrate them into their own total of experiential comprehension, but they must do this in accord with the actual functioning processes they themselves possess. No adult can do this for them, and any approach to the child must be made with awareness of this fact.

To illustrate how one approaches a child and utilizes hypnotic techniques, the following personal example may be cited:

Three-year-old Robert fell down the back stairs, split his lip, and knocked an upper tooth back into the maxilla. He was bleeding profusely and screaming loudly with both pain and fright. His mother and I went to his aid. A single glance at him lying on the ground, screaming, his mouth bleeding profusely and blood spattered on the pavement, confirmed the existence effort an emergency requiring prompt and adequate measures.

No effort was made to pick him up. Instead, as he paused for breath for fresh screaming, he was told quickly, simply, sympathetically, and emphatically, "That hurts awful, Robert. That hurts terrible."

Right then, without any doubt in his mind, my son knew that I knew what I was talking about. He could agree with me and he knew that I was agreeing completely with him. Therefore he could listen respectfully to me, because I had demonstrated that I understood the situation fully. *In pediatric hypnotherapy there is no more important problem than so speaking to the patient that he can agree with you and respect your intelligent grasp of the situation as judged by him in terms of his own understandings.*

Then I told Robert, "And it will keep right on hurting."

In this simple statement I named his own fear, confirmed his own judgment of the situation, and demonstrated my good intelligent grasp of the entire matter and my entire agreement with him, since right then he could foresee only a lifetime of anguish and pain for himself.

The next step for him and for me was to declare, as he took another breath, "And you really wish it would stop hurting." Again, we were in full agreement, and he was ratified and even encouraged in this wish, and it was his wish, deriving entirely from within him and constituting his own urgent need.

With the situation so defined, I could then offer a suggestion with some certainty of its acceptance. This suggestion was, "Maybe it will stop hurting in a little while, in just a minute or two."

This was a suggestion in full accord with his own needs and wishes, and because it was qualified by a "maybe it will," it was not in contradiction to his own understandings of the situation. Thus he could accept the idea and initiate his responses to it.

As he did this, a shift was made to another important matter, important to him as a suffering person, and important in the total psychological significance of the entire occurrence—a shift that in itself was important as a primary measure in changing and altering the situation.

Too often, in hypnotherapy or any utilization of hypnosis, there is a tendency to overemphasize the obvious and to reaffirm unnecessarily already accepted suggestions, instead of creating an expectancy situation, permitting the development of desired responses. Every pugilist knows the disadvantage of over-training; every salesman knows the folly of overselling. The same human hazards exist in the application of hypnotic techniques.

The next procedure with Robert was a recognition of the meaning of the injury to Robert himself—pain, loss of blood, body damage, a loss of the wholeness of his normal narcissistic self-esteem, of his sense of physical goodness so vital in human living.

Robert knew that he hurt, that he was a damaged person; he could see his blood upon the pavement, taste it in his mouth, and see it on his hands. And yet, like all other human beings, he, too, could desire narcissistic distinction in his misfortune, along with the desire even more for narcissistic comfort. Nobody wants a picayune headache, but since a headache must be endured, let it be so colossal that only the sufferer could endure it. Human pride is so curiously good and comforting! Therefore, Robert's attention was doubly directed to two vital issues of comprehensible importance to him by the simple statements, "That's an awful lot of blood on the pavement. Is it good, red, strong blood? Look carefully, Mother, and see. I think it is, but I want you to be sure."

Thus, there was an open and unafraid recognition in another way of values important to Robert. He needed to know that his misfortune was catastrophic in the eyes of others as well as his own, and he needed tangible proof thereof that he himself could appreciate. Therefore, by declaring it to be "an awful lot of blood," Robert could again recognize the intelligent and competent appraisal of this situation in accord with his own actually unformulated, but nevertheless real, needs.

Then the question about the goodness, redness, and strongness of the blood came into play psychologically in meeting the personality meaningfulness of the accident to Robert. Certainly, in a situation where one feels seriously damaged, there is an overwhelming need for a compensatory feeling of satisfying goodness. Accordingly, his mother and I examined the blood on the pavement, and we both expressed the opinion that it was good, red, strong blood, thereby reassuring him not on an emotionally comforting basis only, but upon the basis of an instructional, to him, examination of reality.

However, we qualified that favorable opinion by stating that it would be better if we were to examine the blood by looking at it against the white background of the bathroom sink. By this time Robert had ceased crying, and his pain and fright were no longer dominant factors. Instead, he was interested and absorbed in the important problem of the quality of his blood.

His mother picked him up and carried him to the bathroom, where water was poured over his face to see if the blood "mixed properly with water" and gave it a "proper pink color." Then the redness was carefully checked and reconfirmed, following which the "pinkness" was reconfirmed by washing him adequately, to Robert's intense satisfaction, since his blood was good, red, and strong and made water rightly pink.

Then came the question of whether or not his mouth was "bleeding right" and "swelling right." Close inspection, to Robert's complete satisfaction and relief, again disclosed that all developments were good and right and indicative of his essential and pleasing soundness in every way.

Next came the question of suturing his lip. Since this could easily evoke a negative response, it was broached in a negative fashion to him, thereby precluding an initial negation by him and at the same time raising a new and important issue. This was done by stating regretfully that, while he would have to have stitches taken in his lip, it was most doubtful if he could have as many stitches as he could count. In fact, it looked as if he could not even have 10 stitches, and he could count to 20. Regret was expressed that he could not have 17 stitches, like Betty Alice, or 12, like Allan, but comfort was offered in the statement that he would have more stitches than Bert, or Lance, or Carol, his siblings. Thus the entire situation became transformed into one in which he could share with his older siblings a common experience with a comforting sense of equality and even superiority.

In this way he was enabled to face the question of surgery without fear or anxiety, but with hope of high accomplishment in cooperation with the surgeon and imbued with the desire to do well the task assigned him—namely, to "be sure to count the stitches." In this manner no reassurances were needed, nor was there any need to offer further suggestions regarding freedom from pain.

Only seven stitches were required, to Robert's disappointment, but the surgeon pointed out that the suture material was of a newer and better kind than any that his siblings had

ever had, and that the scar would be an unusual "W" shape, like the letter of his Daddy's college. Thus the fewness of the stitches was well compensated.

The question may well be asked at what point hypnosis was employed. Actually, hypnosis began with the first statement to him and became apparent when he gave his full and undivided interested and pleased attention to each of the succeeding events that constituted the medical handling of his problem.

At no time was he given a false statement, nor was he forcibly reassured in a manner contradictory to his understandings. A community of understandings was first established with him, and then, one by one, items of vital interest to him in his situation were thoughtfully considered and decided, either to his satisfaction or sufficiently agreeably to merit his acceptance. His role in the entire situation was that of an interested participant, and adequate response was made to each idea suggested.

Another example that may be briefly cited is that of the belligerent two-year-old in her crib, who wished no dealings with anybody and was prepared to fight it out on that line for the rest of her life. She had a favorite toy, a rabbit. As she was approached and her jutting jaw and aggressive manner was noted, the challenge was offered, "I don't think your rabbit knows how to sleep."

"Wabbit tan too," and the battle was on.

"I don't think your rabbit can lie down with its head on the pillow, if you show it how."

"Wabbit tan too! See!"

"And put its legs and arms down nice and straight like yours?"

"Tan too! See!"

"And close its eyes and take a deep breath and go to sleep and stay asleep?"

"Wabbit sweep!" a declaration made with pleased finality, and Kristi and her rabbit continued to sleep in a satisfactory trance state.

The entire technique, in this instance, was nothing more than that of meeting the child at her own level and as an individual, presenting ideas to which she could actively respond and thus participate in achieving a common goal acceptable to her and to her adult collaborator.

This type of technique has been employed many times for the single reason that the primary task in pediatric hypnosis is the meeting of the child's needs of the moment. Those are what the child can comprehend, and once that need has been satisfied, there is the opportunity for the therapist to discharge in turn his own obligations.

To conclude, these two case reports have been presented in considerable detail to illustrate the case of the naturalistic hypnotic approach to children. There is seldom, if ever, a need for a formalized or ritualistic technique. The eidetic imagery of children, readiness, eagerness and actual need for new learnings, their desire to understand and to share in the activities of the world about them, and the opportunities offered by "pretend" and imitation games all serve to enable children to accept and to respond competently and well to hypnotic suggestions.

In brief, a good hypnotic technique is one that offers to the patients, whether child or adult, the opportunity to have their needs of the moment met adequately, the opportunity to respond to stimuli and to ideas, and also the opportunity to experience the satisfactions of new learnings and achievements.

The following two articles are suggested for additional reading: Solovey de Melechnin, Galina. Concerning some points about the nature of hypnosis, *J. Clin. and Exper. Hyp.*, IV, 2, April 1956, pp. 83-88. Conduct problems in children and hypnosis, *Diseases of the Nerv. Syst.*, XVI, 8, August 1955, pp. 3-7.

# **Utilization of Patient Behavior in the Hypnotherapy of Obesity: Three Case Reports**

Milton H. Erickson

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Requisite to effective hypnotherapy—and the same holds true for experimental hypnosis—is the adequate communication of ideas and understandings to the hypnotized person. Since the object of hypnotherapy is not the intellectual clarification of understandings but the attainment by the patient of personal goals, this cannot be achieved by a simple reliance upon the inherent values of the ideas and understandings to be presented. Rather, communications need to be presented in terms of the patient's personal and subjective needs, learnings, and experiences, whether reasonable or unreasonable, recognized or unrecognized, so that there can be an acceptance and a response and a feeling of personal fulfillment.

To illustrate this need to center the therapeutic use of hypnosis about the individual personality needs and attitudes of the patient, three instances of obesity previously unsuccessfully treated by other procedures will be cited.

## **CASE 1**

A physician's wife in her late forties entered the office and explained that she wished a single interview during which hypnosis was to be employed to correct her obesity. She added that her normal weight was 120 pounds, but that her present weight was 240, and that for many years she had weighed over 200 pounds despite repeated futile attempts to reduce under medical supervision. She stated that in recent years she had been slowly gaining to her present weight, and that she was distressed about her future because, "I enjoy eating—I could spend all the time in the world just eating." Additional history was secured, but the only thing of particular note was her somewhat anxious, unnecessarily repeated assertions that she enjoyed eating and liked to while away time by eating for purely gustatory pleasure.

Since she was insistent upon a single interview and hypnosis, an effort was made to meet her wishes. She was found to be an unusually responsive subject, developing a profound trance almost immediately. In this trance state an understanding of time distortion as a subjective experience, particularly time expansion, was systematically taught to her. She was then instructed to have her physician husband prescribe the proper diet for her and to supervise her weight loss. She was henceforth to eat each meal in a state of time distortion, with time so expanded and lengthened that, as she finished each portion of food, her sense of taste and feeling of hunger for that item would both be completely satiated, as if she had been eating for "hours on end with complete satisfaction." All of

this instruction was given repetitiously until it seemed certain she understood fully, whereupon she was aroused and dismissed.

The patient, together with her husband, was seen nine months later. Her weight had been 120 lbs. for the past month, and her husband declared that her weight loss had occurred easily and without any medical complication. Both she and her husband spoke at length about their improved personal, social, and recreational activities, and she commented that, even though she ate much less, her eating pleasures had been intensified, that her sense of taste and smell were more discerning, and that a simple sandwich could be experienced with as much subjective pleasure as a two-hour dinner.

## CASE 2

A patient weighing 180 pounds explained half-laughingly, half-sobbingly, that her normal weight was about 125 pounds, but that for over 15 years she had weighed 170 or more "most of the time."

During these years she had been under medical supervision many times for weight reduction. She had always cooperated with the physician, adhering to the recommended diets, obeying every instruction, always losing at least the prescribed poundage each week, usually more. Each time she reduced, she established a goal-weight which varied from 120 to 130 lbs. As she approached this predetermined weight, she invariably experienced much disturbing behavior of an obsessive-compulsive character.

When within 5 or 10 pounds of her goal, she would weigh herself repetitiously throughout the day, and the nearer she came, the more frequent became the weighings with increasing anxiety. When the scales showed exactly the chosen weight, and not until then, she would rush precipitously to the kitchen and "gorge frantically," usually regaining at least 10 pounds the first week. Thereupon the reduction program would cease, and there would occur a progressive, systematic restoration of the lost weight accompanied by a feeling of despair mingled with a profound determination to engage upon another weight-reduction program soon after she had completed regaining her lost weight. She had, in the past, reduced to the goal weight as many as three times within a year, but always under the direction of a different physician.

She now sought reduction to 125 pounds, stating frankly and with some amusement, "I suppose I'll do exactly the same with you, even though you are a psychiatrist, as I do with every other doctor. I'll cooperate and I'll lose and then I'll gain it back and then I'll go to someone else and repeat the same old silly behavior." Here she burst briefly into tears. Recovering her poise she continued, "Maybe if you use hypnosis that will help, but I don't think it will even if you do hypnotize me. I'll just do the same darned thing again and again, and I'm so tired of reducing and gaining. It's just a horrible obsession with me. But I don't want any psychiatry used on me."

Further explanation on the patient's part served only to emphasize more clearly what she had already related.

In accord with her wishes hypnosis was attempted, and by the end of the hour a medium trance characterized by a considerable tendency toward spontaneous post-trance amnesia was induced. She was given a second appointment, at which time her history was taken a second time. The details were essentially the same, and she reiterated her firm belief that she would again follow her pattern of losing and gaining weight, and again she sobbed briefly. She also reaffirmed her unwillingness to accept psychiatric help and restricted emphatically any help given her to the problem of her weight. She also declared her intention of terminating her treatment if any attempt were made to deal with her psychiatrically. Repetitiously she promised her full cooperation in all other regards.

A medium trance state was readily induced, and she was asked to reiterate her promise of full cooperation. She was also induced to restate repetitiously that in the past her problems had centered around "gaining, losing, gaining, losing, gaining, gaining, gaining, losing, losing, losing," and to agree that throughout the proposed course of treatment she would keep this sequence of behavior constantly in mind.

As soon as it was felt that she had accepted these peculiarly but carefully worded statements, the assertion was offered that her treatment this time, "will be the same, yet completely different, *all of your behavior will be used*, your cooperation has been promised and will be given, and all of your behavior that you have shown so many times in the past will be used, but this time used to make you happy, used in a different way."

When it was certain that the patient knew what had been said to her, even though she did not understand what was meant or implied, she was reminded of the firmness of her resolve to cooperate completely, even as she had in the past, but this time, she was told, "things" would be "done differently" and therefore successfully and to her entire happiness and satisfaction.

Thereupon, while she was still in a medium trance, it was explained that always in the past she had approached her problem of obesity by setting a goal weight, by losing and gaining weight, by a performance of obsessional weighing, and then setting a second goal of her original overweight. These same items of behavior, it was emphasized, would again be employed but in another fashion and effectively for the medical purposes desired.

The explanation was continued to the effect that instead of letting her terminate her reducing by a process of gaining, the procedure would be reversed. Therefore, she was under obligation, as a part of her cooperation, to proceed at once, and at a reasonable rate, to gain between 15 and 25 pounds. When this gain had been made, she could then begin reducing.

The patient protested vehemently that she did not want to gain but to lose weight, but it was patiently and insistently pointed out that her reducing programs had always included obsessive weighing, losing weight, gaining weight, the setting of goal weights, and full cooperation with the physicians. No more and no less was now asked. Finally the patient

agreed to abide by the instructions. She was then aroused, and the instructions were explained again. She protested vigorously but slightly less so than in the trance state, and finally she reluctantly agreed to the proposed program.

Most unwillingly she began to increase her weight. When she had gained 10 pounds she pleaded to be allowed to begin reducing. She was reminded that an increase of 15 to 25 pounds had been prescribed, and this would be insisted upon. As she approached the gain of 15 pounds, she began weighing herself in a repetitive, obsessive manner and demanded an appointment immediately when the scales showed the 15□pound increase. At that appointment it was carefully explained to her in both the trance and the waking states that the prescribed gain had been for a weight *between* 15 and 25 pounds.

Less than a week later, after much obsessive weighing and eating, which was done with great reluctance, she reported for an interview and hesitantly stated that she had gained 20 pounds, and that this figure was exactly between 15 and 25. She pleaded to be allowed to reduce. Consent was given with the admonition that the loss of weight must not exceed the average of three pounds a week.

The patient's progress was most satisfactory. She showed none of her previous obsessive weighing as she approached the weight of 125. She had almost at once calculated the date of her goal weight when she had first begun to reduce, but she had been admonished that weight reduction was on a weekly average. Hence, she could only set the week but not the day of achieving the goal weight.

She was seen only at intervals of three to six weeks. She was always adequately praised for her cooperation in both the trance and waking states, and each time the hope was expressed that no intervening problem would develop to alter the expected week of final achievement.

She forgot her appointment for the final week, but made one for the next week. At that time she weighed 123 pounds instead of 125. She explained that she had failed to weigh herself regularly and hence did not know exactly when she had reached 125 pounds. She declared her intention to remain approximately that weight.

In the nine months that have passed since then the patient has succeeded comfortably in this resolve. In addition she has developed recreational and vocational interests, particularly golf and a book review club, and she has for the first time in her life participated in social and community affairs.

### **CASE 3**

A physician's wife in her middle thirties sought aid for her obesity in an amused, half-hearted manner. This had begun in her junior year in high school, at which time she weighed 110 pounds, and each succeeding year of life had been marked by a progressive increase to the current weight of 270 pounds.

During the past 13 years she had sought help from one physician after another, but each time failed to secure results. Her explanation was, "Oh, I always cooperate with the diet they put me on. I always eat that and everything else I can lay my hands on. I always overeat, and I suppose I always will. As a forlorn hope, I'm trying you to see if hypnosis will work. I know it won't, but my husband will feel better if I do try it. But I warn you not to expect too much because if I know me, and I think I do, I'll overeat as usual."

Hypnosis was attempted. She developed a medium to deep trance readily, but it was difficult to maintain that depth of trance. She would repeatedly arouse, laugh, and explain that she was curious why the writer would be willing to waste his time on her in view of her "unfavorable prognosis" of her own behavior. The explanation was offered to her that neither time nor effort would be wasted since it was intended to utilize her own behavior to effect therapeutic results. Her reply was, "But how can there be therapeutic results when you and I both know that I'll eat any diet you recommend and everything else even if I have to make extra shopping trips? I've had too many years of overeating to give it up, and I'm here only because my husband wants me to come. I've always tried to cooperate, but it's no use. I know the exact caloric value of any serving of food, but all my knowledge does not keep me from overeating. Even my teenage daughter's embarrassment about my obesity doesn't keep me from overeating. But I'll play along with you, at least for a while, but nothing will work."

Again she was assured that her own behavior would be employed to produce effective results, and she was asked to redevelop a trance state so that hypnosis could be employed. She declared that she would only awaken herself from the trance state if this were done. Even as she completed her statement, she developed a medium to deep trance but almost immediately aroused herself by laughing.

She was then asked to develop and to maintain a light trance and to listen carefully to what was said to her, to understand completely what was said, to go into a deeper trance whenever she wished, or to lighten her trance if she felt so impelled, but at all events to listen to the entire explanation about to be offered her without interrupting it by arousing from the trance. She agreed to cooperate on this basis.

Slowly, systematically, she was instructed:

1. Your weight is 270 lbs.
2. You know the caloric values of any food serving.
3. You always have and always will overeat.
4. Your own behavior has always defeated you in the past.
5. Your own behavior will be used this time to effect therapeutic results. This you do not understand.
6. You will cooperate as you always do, and you will also overeat. (The patient first shook her head vigorously at this, then sighed and slowly nodded her head affirmatively.)

When it was felt that she understood these instructions adequately, she was given the further instructions:

1. You now weigh 270 pounds, not 150 or 140, but 270 pounds. You not only will overeat but you need to eat excessively in order to support that poundage.
2. Now bear this in mind and cooperate fully: During this week overeat, *doing so carefully and willingly*, and overeat enough to support 260 pounds. That is all you need to do, overeat sufficiently to support 260 pounds. Now I am going to arouse you and dismiss you with no further discussion or even comments. You are to return at this same hour one week from today.

She was seen again a week later. Her opening remark was, "Well, for the first time in my life I enjoyed overeating, and I checked on my husband's office scales today, because I don't trust our bathroom scales. I weighed 260 pounds too, a few ounces less in fact, but I call it 260 pounds."

A trance was induced again, light in character, and she was again similarly instructed, but this time to overeat sufficiently to support 255 pounds and to report in another week's time. On that occasion a new goal was established at 250 pounds.

On the next visit she hesitantly explained that she and her husband were going on their annual two weeks' visit at her parental home, and that "I always gain on my mother's cooking, and I hesitate to go this year, but I see no way out of it."

In the trance state she was asked what weight she ought to overeat sufficiently to support on this two-week holiday. She answered, "Well, we'll really be gone 16 days, so I think I ought to eat enough to weigh a good fat 238."

She was emphatically told that she was *to overeat sufficiently to support 238 pounds and also sufficiently to gain 3, 4, or even 5 pounds.*

She returned from the trip jubilant, weighing 242 pounds, and stated happily, "I did just as you said. I gained four pounds. This is a silly game we are playing, but I don't care. It works. I like to overeat and I'm so grateful that I don't overeat as much as I used to."

A variation was introduced into the procedure by insisting that she maintain her weight unchanged on two occasions for a two-week period. Both times she reacted with impatience, declaring "That's too long a time to overeat that much."

In six months' time she has reached the weight of 190 lbs., is enthusiastic about continuing, and is in the process of window-shopping for "something that will look good on a chubby 130 or 140."

## **SUMMARY**

The medical problem for each of these patients was the same, a matter of weight reduction, and each had failed in numerous previous attempts. By employing hypnosis a communication of special ideas and understandings ordinarily not possible of presentation was achieved in relation to personality needs and subjective attitudes toward weight reduction. Each was enabled to undertake the problem of weight loss in accord with long-established patterns of behavior but utilized in a new fashion. Thus, one patient's pleasure in eating was intensified at the expense of quantity, a change of sequence of behavioral reactions led to success for the second, and a certain willfulness of desire to defeat the self was employed to frustrate the self doubly and thus to achieve the desired goal.

# Hypnosis and Examination Panics

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, 1965, 7, 356-358.

Over a period of years I have been consulted by many physicians, lawyers, Ph.D. candidates, college students, and high school students who were concerned about the "examination jitters." The vast majority were those who panicked either during the examination or immediately before it, and either failed miserably or made regrettably poor grades. Among the physicians and lawyers have been some persons who have failed the state board or bar examination as many as five times in succession and some who have failed the national specialty certification examinations twice. One particular physician had, following high school days, invariably failed every final examination, but because of his otherwise remarkably excellent record, he had always been given special extra examinations. He always passed these extra examinations with high grades, but only with extreme effort and extended time limits.

The procedure employed with these various applicants for help was essentially constant in character. First a trance was induced that might range in depth from light to somnambulistic. The subjects were then told, in essence:

You wish to have help in passing your examination. You have sought hypnosis and you have developed the trance state that I know to be sufficient to meet your needs. You will continue in that trance state until I tell you otherwise.

Now, here is the help you wish. Listen carefully and understandingly. You may not want to agree with me, but you must remember that your own ideas have led only to failures. Hence, though what I say may not seem exactly right, abide by it fully. In so doing you will achieve your goal of passing the examination. That is your goal and you are to achieve it, and I shall give you the instructions by which to do it. I cannot give you the information that you have acquired in past study, and I want you to have it available for the examination in the way I specify.

First of all you are to pass this examination, not trying in the unsuccessful ways you have in the past but in the way I shall now define. *You want to pass this examination. I want you to pass it. But listen closely: You are to pass it with the lowest passing grade—not an A or a B. I know you would like a high grade, but you need a passing grade—that's all, and that is what you are to get. To this you must agree absolutely, and you do, do you not? [An affirmation was always given.]*

Next, after leaving this office I want you to feel carefree, at ease, even forgetful of the fact that you are to write an examination. But no matter how forgetful of that fact you become, you will remember to appear on time at the place of examination. At first you may not even remember why you are there, but it will dawn on your mind in time, and comfortably so.

Upon taking your place, you are to read through all the questions. Not one of them will make sense, but read them all. [The purpose of this was to give the subject an unwitting appraisal of the number of questions and the amount of time each would require.]

Then get ready to write, and read the first question again. It will seem to make a little sense and a little information will trickle into your conscious mind. By the time you have written it down, there will be another trickle keeping you writing until suddenly the trickle dries up. Then move on to the next question, and the same thing will happen. When the time is up, you will have answered all of the questions comfortably, easily, just recording the trickle of information that develops for each question.

When finished, turn in your examination paper and leave feeling comfortable, at ease, at peace with yourself.

## **THE RESULTS**

The results have been uniformly good. This was true even for a law student who telephoned long distance to explain that he had repeatedly failed his bar examination, that he was to be reexamined the next day, that he had been hypnotized previously with no satisfactory results, that he had just been referred to the author, and that he wanted immediate last-minute help.

Subsequently he telephoned to report that he had been disappointed in the trance induced over the telephone, that nevertheless he had slept well that night, had reported in a carefree mood for the examination, had written it with no subsequent memory of what the questions were, and had remained mentally comfortable until he was notified several weeks later that he had passed the examination. He then developed a feeling of almost painful urgency to telephone the news to the author. As he offered this information over the telephone, he lost his feeling of urgency and was again mentally at peace.

The above account, with minor variations, is not at all unusual. However, of particular significance has been the effect of insisting upon a low grade, literally the "lowest passing grade." A considerable number of these students have insistently queried the author for his reasons, pointing out that instead of low passing grades, they had received the highest possible grade they felt they were capable of earning. Indeed, A's were common, B's less so, and C's only occasional. There was no instance of a grade of D being received even though, for some of the students, their daily class work was

sufficiently good that a final examination grade of D would have led to a passing grade of C. The plausible explanation offered to them has been:

When you strive for an A, you become tense, overeager, uncertain, and doubtful, and hence you cannot function at your best. When you, obedient to the instructions I gave you, were writing to secure only a C or a D, you were comfortably confident and certain that you could do this with ease. Therefore, you wrote in a state of mental ease and confidence, free of doubt and uncertainty, and you weren't concerned about holding yourself down to a D performance or struggling with doubtful hope for an A. Hence, you were in that mental and emotional frame of thought and feeling that would ensure your optimum performance.

Long experience in psychotherapy has disclosed the wisdom of avoiding perfectionistic drives and wishes on the part of patients and of motivating them for the comfortable achievement of lesser goals. This then ensures not only the lesser goal but makes more possible the easy output of effort that can lead to a greater goal. Of even more importance is that the greater accomplishment then becomes more satisfactorily the patient's own rather than a matter of obedience to the therapist.

This method of handling examination panics has been employed with nearly 100 persons. Physicians, lawyers, candidates for a doctoral degree in medicine, psychology, religion, and education have predominated. The next larger group consisted of college seniors majoring in various fields, but especially in psychology. College juniors and sophomores were fewer in number than were college freshmen, and high school juniors and seniors made up the rest of the students so treated, except for a considerable number of job applicants undergoing a written examination for a promotion. Only one dentist has been handled in this regard.

There have been a few failures, all of whom returned to explain that they, not the author, were at fault, that they had found themselves mistrusting the help offered, and did not use it, with a consequent failure. Now they desired another "treatment" so that henceforth there would be no failures. This was done only upon their agreement to report future results, which they did with pleasure. All of these first-time failures occurred with subjects who developed only light trances and who could not seem to learn deep trances. The deeper the trance, the better pleased was the examinee with the examination results.

It must be recognized, however, that all of these applicants for assistance were highly motivated, which undoubtedly contributed to the success. Also, in the author's opinion some really did not need help.

Subsequently, the physicians and the lawyers in particular sent their wives to the author for training in hypnosis for childbirth.

# **Experiential Knowledge of Hypnotic Phenomena Employed for Hypnotherapy**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, April, 1966, 8, 299-309.

## ***INTRODUCTION***

In the use of hypnosis for the therapeutic handling of psychogenic problems, there is often too ready a dependence upon hypnosis itself and the immediate use of some well-known structured form of hypnotic approach. For example, the author has seen many instances where hypnotherapy was attempted by a routine use of regression by various therapists with disappointing results, and sometimes with an antagonizing of the patient toward hypnosis. Although hypnotic regression, dissociation, abreaction, and revivification may be useful in general, each patient's problem needs individual scrutiny and the structuring of the therapeutic approach to meet the individuality of the problem.

To illustrate this need, the following account is given in detail to portray the character of a problem that had to be met, the purposes that had to be served, the procedures that had to be considered and utilized in therapy, and the methods that had to be employed in devising a successful therapeutic handling of the problem.

The question of therapeutic procedure will be discussed first to present certain vital aspects of the therapeutic situation as a background for a general understanding of the total problem.

One of the considerations was that therapy would have to be successful on the first completed effort. If there were a failure, there could be no opportunity for any second effort by a revision of therapeutic measures or any measure of "second guessing." One and only one opportunity existed for a successful outcome. Both the patient and the author were aware of this fact, a matter so much in evidence that no mention of it was needed.

The problem was one of long duration and it had many times been confirmed and accepted by respected authoritative persons. Additionally, the patient had been aided and abetted in circumventing his problem most successfully many times. He was now confronted inescapably with the need to confront his problem in a situation vital to his whole future with no possibility of any circumvention as had always been done successfully in the past.

He approached the author with a request for help by means of hypnosis but with no adequate understanding that hypnosis could help him only by making more available to him his own potentials for self-help. Nor was he in any frame of mind to be given such understanding. He "knew" beyond all doubt that he was helpless, and he simply surrendered himself to the author with complete dependence upon what the author could do. Hence, any therapeutic procedure would have to be patterned to permit an inclusion of this mistaken understanding by the patient but doing so without invalidating therapy.

The idea of circumvention had become a fixed idea, it was always by the same method, and it had always proved to be the "right and only" method. Now he was barred from circumvention, *hence he had to depend entirely upon the author.*

Since this was the patient's fixed belief, hypnotherapy would have to include circumvention which would not be so recognized by him at the time, since in his own mind he was rigidly convinced that circumvention was impossible. Therefore the structuring of the therapeutic procedure would have to be around something in which the patient fully believed but also fully believed to be impossible of utilization.

The patient himself unwittingly gave the author a rather full statement of how this circumvention could be achieved but which the author did not recognize at the time. Nor did the author recognize, at least consciously and probably not unconsciously, the meaningfulness of the patient's informative statement until after structuring and restructuring the complete plan, and to the author's chagrin he realized he had not listened sufficiently carefully to the patient's own significant statement so vital to the final plan of therapeutic procedure.

Finally, in developing any therapeutic plan that must succeed upon the first effort, the author realized that he would have to do much speculative work and would have to follow the trail of many of his own thoughts on the matter that would turn out to be useless. In this presentation the useless work done will not be reported. The fruitful work only will be reported—and in brief form since the kind, not the extent of the work, is all that is important.

## **THE PROBLEM**

A patient, a professional man seeking certification in a medical specialty, sought the author's aid. His story was that since high school days oral examinations had been nightmarish ordeals. Invariably he developed a multitude of psychosomatic symptoms ranging from mild to severely disabling. He had always been an excellent student, and none of his teachers and instructors, upon seeing the state of his physical collapse when attempting to meet the needs of an oral examination, had ever doubted the genuineness of his reactions.

With a feeling of shame and humiliation when confronted with the possibility of an oral examination, he usually secured a physician's statement affirming his inability to comply and recommending, as a medical necessity, that he be given a written examination. Such

medical statements usually stated that there would be no objection to making the written examination much more rigorous and searching than the oral examination would ordinarily be. Invariably he received an excellent grade, since he was a most brilliant and dedicated student.

This special disability had haunted him throughout high school, college and medical school. On several occasions only his earnestness, brilliance, unassuming and modest behavior, and the actual breadth of his knowledge induced some of his instructors to make special allowance for his handicap, or to "humor" him, since a few resented the situation.

State board examinations were trying ordeals for him when both written and oral examinations were required. Only the unusual excellence of the written part of the examination and the documentation of his past experiences induced the two state boards of medical examiners which required an oral examination to accord him special consideration. The reason for examinations by several state boards was his desire to inform himself about the practice of medicine in various parts of the country.

In the actual practice of medicine this patient was well respected and his competence was readily recognized. He experienced no personal problems, and his home and marital adjustments were excellent. He had consulted several psychotherapists, all of whom had regarded his problem as a circumscribed manifestation that did not warrant therapy.

He finally decided to secure certification in a certain specialty. The examining board was considerate about substituting an additional written examination for the customary oral examination part. He received his certification without difficulty. Some years later he decided upon additional certification in an allied field and undertook extensive training for that purpose.

He applied for admission to the examination conducted by the specialty board in that field. He received a letter of acceptance accompanied by a letter from the president of the board of examiners and signed by him. This letter stated that all examinees, in accord with a newly established policy of examination, were required without exception to take an oral examination lasting a minimum of four hours. This would be conducted by the president of the board and two other examiners. The patient recognized the president's name at once as that of a classmate he had had in high school, college, and medical school. That man was fully aware of the patient's oral examination problem; moreover, he had carried throughout the years an unreasoning, intense, and bitter hatred for the patient. With the passage of years occasional encounters at medical meetings had disclosed no abatement of that man's hatred, for which the patient knew no basis and for which no provocation was needed to elicit some unpleasant manifestation.

The patient consulted a colleague who also intended to take the examination at the same time. This colleague had received a letter of acceptance containing the same information, but it was signed by the secretary of the board. He wrote to two other friends with whom

he had taken specific postgraduate courses and who were also taking the examination. Their letters were similar in content to his but were signed by the board secretary.

The patient then said simply, "There you have it. The term of office for that man is four years. I need to be certified this year. I know for an absolute certainty that I cannot measure up to an oral examination. I have no doubts about knowing my stuff. I could pass any written examination with flying colors. But I also know with absolute certainty that I cannot take an oral examination, much less one conducted by a man who hates me bitterly for no reason that I know of and who knows my weakness. I regard my situation as hopeless unless hypnosis can do something for me. That is why I have come to you, and I place myself unreservedly in your hands. I am your patient if you will accept me. If you do, you will have my full cooperation in anything that you wish to do or anything that you may wish me to do." This placing of all responsibility upon the author was immediately apparent, as well as his fixed limited understanding of his situation.

### **INITIAL PROCEDURES AND APPRAISAL OF PROBLEM**

He was assured that he was accepted as a patient and he was asked to give in full detail every item of symptomatology he had ever developed in connection with oral examinations. He was asked to execute this task as a simple recounting rather than as a vivification of his symptoms as he recited them.

The patient thoughtfully, slowly, and in a most orderly and systematic fashion detailed his symptoms fully. They were many and included intense fear, uncontrollable tremors, excessive perspiration, nausea and vomiting, palpitation, bladder and bowel incontinence, severe vertigo, and a final physical collapse resembling shock. He added, with a reflective smile, that there seemed to be no direct correlation between the severity of his symptoms and the importance or unimportance of the examination. The only requisite was that the oral examination must be definitely recognized as being an examination. A recitation offered no difficulty. He explained further that even in taking examinations for an automobile driver's license, he was forced to the measure of taking a pen and a pad of paper with him. When asked a question, he would simply write the answer on the paper pad and then "read it aloud." This behavior had occasioned some lifted eyebrows, but it was a measure by which he "could avoid the oral examination situation." Even such questions as his age and the number of years he had been driving an automobile had first to be written and then "read" to the examining clerk.

The patient was then told that he would not be given any therapeutic or otherwise helpful hypnotic suggestions until he had been hypnotized a sufficient number of times to give him an adequate experiential background for therapy. To accomplish this he might be used as an experimental subject in a current project. To this he readily agreed.

He proved to be an excellent somnambulistic subject, but several hours were spent merely eliciting the various hypnotic phenomena repeatedly. He was then used as an experimental subject in special work in which the author was interested with intentional additions for him requiring wide use of deep trance phenomena. The reason for such use

of him in this experimental work was to secure some measure of his competence for prolonged hypnotic work of any type.

In the meantime the problem of how to help him was being given consideration.

His initial account and all subsequent inquiries indicated that his problem was of a limited, circumscribed character. After much thought it was reasoned that therapy would need to be similarly circumscribed. That the patient would have to take additional oral examinations other than the one impending was considered to be most unlikely. Hence, there would be no need to devise a therapeutic design to meet future contingencies.

Another consideration was that any measure that met the patient's needs would also have to include elements that were definitely not therapeutic but might even serve to enhance his own pattern of circumscribed neurotic structure by a utilization of it. This would be occasioned by the fact that a vital part of the situation to be met was of an unalterable character—namely, the man who hated him and who would be examining him. Any therapeutic or helpful plan would have to include this fact and be structured accordingly. Furthermore, there could be no clouding or falsification of this significant aspect of the situation to be met.

The patient, in the time spent with him, had shown himself to be of good strong character, readily able to face all ordinary challenges of life. His war record had been excellent in combat service. Apparently his Achilles heel was only the matter of oral examinations, compounded in this instance by an examiner's intense hatred.

That a simple direct or even indirect therapeutic approach be made was ruled out by several important factors. Foremost was the fact that he came for help in relationship to a specific impending examination, not for therapy. Also, there were his fixed and rigid "certainties" about his condition. These could not be immediately changed; help by the author as the patient understood matters was only to permit success in the examination. Other psychotherapists had assured him he did not need therapy. Also, the usual therapeutic methodologies would take too much time, much more time than was available for him. Then, too, ordinary psychotherapy by whatever school of thought could quite conceivably fail.

Therefore, some plan of procedure had to be devised whereby the patient's needs as he understood them had to be met. It could not include direct or even indirect suggestion, since such suggestions would be in contradiction to the patient's fixed understandings. To attempt some direct procedure such as regression—direct, or indirect by dissociation—offered no promise of success. Nor could there be risked a failure of any sort with hypnosis, since failure would lessen greatly or actually destroy his remaining hope of achieving success.

Since the patient was so rigidly convinced that he had no means whatsoever of his own with which to meet his problem, it was finally decided to devise a "therapeutic" (as he would or might construe whatever the author did) procedure that would give to him

various new ways and means of dealing successfully with the impending examination. That it would actually be therapeutic in the usual sense of the word was not of importance. What was important was that the patient would be given entirely new ways of reacting and responding of a sort that would preclude the development of his long-established pattern of behavior. Further thought suggested that the rigid, limited, circumscribed character of his problem be employed to structure the final procedure. To do so might enable him to enter the examination room with his medical knowledge readily available, this to be presented adequately as needed by wholly new and different methods of reacting and responding. All of this would be so structured that it could be achieved within a highly restricted circumscribed frame of reference.

Having reached these conclusions, a systematic plan of therapeutic work was devised. Previous hypnotic work which served primarily to enable the patient to develop a trance satisfactorily was repeated in large part and fitted into the following plan described in detail.

### **THE THERAPEUTIC PROCEDURE**

A deep somnambulistic hypnotic trance was induced on repeated occasions in the patient, and each time he was asked to experience fully, in a fashion entirely unrelated to his problem, all of the various phenomena of the deep trance. Some of this work fitted into a current experimental project, but the patient had no knowledge of what the experimental work was. Most of the work done with him was merely to ensure adequate experiential learning by the patient. Thus, he learned to develop positive and negative visual and auditory hallucinations, superficial and deep anesthesia, regression, revivification, dissociation, selective amnesia, partial or total amnesia, hypermnesia, posthypnotic suggestion, depersonalization, automatism, and time distortion. The patient was given to understand that many of these learnings would be of no service to him, and he was allowed to think that the author was meeting the needs of personal experimental work. In no way was he allowed to realize that this additional work might serve a definite purpose for him—namely, that of preventing him from attaching any of his anxiety and fears to any of those learnings or from distorting those learnings in any way by an overeagerness to benefit from them. Also, the knowledge that the author was already engaged in an hypnotic experiment of which he knew nothing furthered this needed distraction of the patient from the author's work with him. It may be added that if the author had not already been engaged in some experimental work, he would have immediately devised some that would have required the recording of data, this fact of recording being unobtrusively disclosed to the patient without revealing the data. This measure is often most effective in circumventing the hindrance caused by too intense an interest by the patient in his own therapy.

When the author was fully satisfied that the patient was adequately trained, the plan of therapy that had been devised was put into action. This plan was based upon (1) the ability to hallucinate visually, (2) the ability to dissociate from the self and to dissociate the self from objects, (3) the ability to maintain a coherent train of thought while verbally expressing another or while attending auditorially to the utterances of another person, (4)

the ability to execute posthypnotic suggestions, (5) the ability to develop amnesia, (6) the ability to behave like an automaton, (7) the ability to distort and to transform realities, and (8) the ability to present an appearance of alert, attentive consciousness, however deep a trance state might develop. Since all instructions given to the patient were permissive in character, the patient was entirely at liberty to utilize these various learnings as best befitted him in the impending situation.

## **THE RESULTS**

In essence, the patient utilized all of the instructions given to him, not always in the order or manner intended by the author but rather in accord with his own understandings of what he was to do. What actually happened is best related in the patient's own words.

"As soon as I got back home, I realized I had to see you again. So I called for an appointment. I had a feeling it was urgent and that you also wanted to see me right away. I literally didn't remember anything until my wife met me at the airport. I read the good news on her face and then I remembered that I had telephoned the good news to both of you. I was in a complete mental daze while going there. I knew I was completely clear-headed and at ease during the examination. I knew I didn't miss a single question. I remembered that they told me my diploma would arrive in about three weeks. Then I telephoned you and my wife. But I forgot all this. Then I must have come home in a daze. I don't remember even checking out of my hotel or catching my plane. I knew where I was. I was just without any memories of what had occurred while I was away from home when my wife met me at the airport. When she said how glad she was I had passed, I could remember notifying her and you. That's all, though. So I told her that I had to go to the office right away on something urgent, and as soon as I got there, I telephoned you and called a cab. Will you put me in a trance and help me to remember?"

The author replied, "The important thing is that you passed your examination. It really is not necessary to induce a trance for a systematic orderly account of what happened. *You can remember now while completely alert and wakeful.*"

In an astonished tone of voice the patient began, "That's right. I was in a daze all the way there. I acted like a robot. I said and did all the right things. I had my notice with me telling me where and at what hour to report. I was there about 20 minutes early. Sat like a robot. Walked in the examination room when the girl called me. My 'friend' showed all his teeth in his smile. They needed cleaning. He said, 'Glad to see you, Jack. Sorry we can't make any special arrangements for you.' But all the time he was speaking, I was looking at his face. It looked as young as when we were in high school. Then I saw it getting older and older, changing like the face of Dorian Grey in the movie. But I just said, 'It's all O.K. with me. I'm ready to go anytime.' Then he said, 'Just take a seat in that chair there.' I looked at it and wondered what a nice chair like that was doing there, but I sat down facing the three of them.

"Then he fired the first question. I heard every word of it, but I kept watching the way his mouth moved. It looked so interesting in such a peculiar way. Then when I told him the

answer I knew he wanted but didn't think I knew, you should have seen the look on his face. I knew that he knew my answer was right. But he looked as if he just couldn't believe something about me. I couldn't figure out what it was. Then he asked me a great long question. I tipped my head a bit to hear him better and looked past him, and he disappeared. Just his voice was there. Heard every word but as I heard the words, pages from textbooks appeared before my eyes. I could see the page numbers, and certain paragraphs were in large print. I looked at them carefully while I listened to the words, and when the words stopped, I just summarized what was in those paragraphs. I thought I gave a pretty good summary, but just then my 'friend' came back looking mad. Before I could figure out why, he picked up a sheet of paper and began reading a page-long typewritten question. As he began reading to me, a large sheet of white paper appeared before me, and every word he read showed up in big black print, and I kept reading right along with him about a word or two behind him. When he finished, I just looked that sheet of paper over carefully a few seconds and explained that there were three different possible interpretations. So I told him what they were. You should have seen the agony on his face. That man was in pain." Here the patient interrupted himself to say, "Now I know what really happened. I was in some kind of hypnotic state, and you must have taught me how to use it in the examination situation. It's obvious that I was hallucinating and that I was behaving automatically some of the time. There's probably some things I did that I don't know the technical terms for."

He was assured that his interpretation was entirely correct, but that the author wanted him to continue with his account.

The patient resumed, "Well, then the next man introduced himself and I realized that my 'friend' hadn't done the proper thing. This man looked like an awful nice fellow, and he spoke as if he really needed some help on a problem that was troubling him, so I told him exactly what he needed to know."

Here the patient interrupted himself again, "That's exactly what happened with each of the other two examiners. They each looked like a person you would like to know, and when either of them asked me a question, they looked like they needed help, and so I listened carefully and then I told them what they needed to know. Oh, yes, at the end of an hour and a half they nodded to each other and then to my 'friend.' He looked madder than ever. Then those two stood up and both shook hands with me and congratulated me. Then my 'friend' stepped over and shook my hand and congratulated me and I wondered why, and why he didn't get a rug for his baldness and have the hair on his ears clipped. That was it."

To this the author replied, "Not entirely. Tell me a bit more about what you did in relation to your so-called friend."

"In complete detail? I remember everything and can do it, or will a summary be sufficient?"

He was told that a summary would be satisfactory.

“Well, there was that question where I could see myself standing behind him looking over his shoulder and reading what he was reading and then reading the answer. Then once he seemed to be trying to sing a silly song, so I recited some medical prose. Then he seemed to be beating time while I was talking to him, and I would purposely rephrase what I was saying to get him off beat.

“Oh, yes! There are two especially interesting things, one that puzzled me and both that I enjoyed. Well, several that I enjoyed. The puzzler was where ‘friend Henry’ looked to be about a block away so I could barely see him. Couldn’t recognize him, but I could hear his voice right in front of me. I tried to figure out whether he had moved away from me or if I had moved away from him, but how could his voice be right in front of me? So I replied to him and never did figure that one out till now. But the best ones were when Henry asked about some specific condition or some syndrome and I actually felt myself in white uniform on the ward examining a patient. Each time the patient was Henry and he was in terrible condition—looked awful—and I explained the condition very carefully so that the interns with me could understand fully. I was just one of the fellows taking postgraduate work making rounds with the interns and really enjoying myself.

“In fact, not once did I know what I was there in that examination room for. I just was interested in how I saw things, and I did and said all the right things. Did you teach me how to do all those things in those hypnotic sessions I had with you? And did you make me have amnesia so I just wouldn’t worry and fret and get into a horrible stew?”

He was told that such was the case and that he had been taught various other things, all for the purpose of permitting an adequate examination performance with no neurotic distress. He was also told that he was at liberty to ask more questions of the author and also free to remember or to forget his examination experience. However, it was stressed that he retain any measure of learning that might be useful to him and that he could feel comfortably certain that he need never use his hypnotic learnings except appropriately and in times of special need.

The patient has been seen repeatedly many times since then in a casual way. He has referred patients to the author, and he would, if asked, do hypnotic work with the author. He is not interested in employing hypnosis himself, but he has stated that his approach to patients and their problems has been changed for the better. This he explained as, “Perhaps I am unconsciously using hypnotic techniques.”

## **DISCUSSION**

It is at once apparent that an unrecognizable (to him) circumvention of the examination situation had been effected. There had been also a bizarre distortion of it, fully as bizarre as his own neurotic behavior that disabled him. This distortion of the examination situation had been amusing, puzzling, even bewildering, but in no way distressful, nor did it interfere with the examination procedure. Posthypnotic suggestion had served to enable him to present an appearance of ordinary wakefulness, alertness, and responsiveness.

Well-learned forms of the various types of hypnotic behavior were posthypnotically employed by him in his own private personal manner of meeting the requirements of the examination.

Paradoxically, such an elaborate procedure was not evolved for the patient's sake. A general explanation can be found in the question, "Why do neurotic and psychotic patients so frequently develop such elaborate psychological structures to give expression to their illness?" Undoubtedly because the expression they do give is so inadequate. As for the patient, why did he have such elaborate and so many and such intense symptoms? Nausea and vomiting alone were sufficient. Certainly bladder and bowel incontinence were more than adequate to prevent an oral examination. Then why were there all the other symptoms? Did they serve some other purposes or relate to unrecognized significances? As in the case with other patients, the author simply does not know. Nor does he know of anybody who has ever really understood the variety and purposes of any one patient's multiple symptoms despite the tendency of many psychiatrists to hypothecate, to their own satisfaction, towering structures of explanation often as elaborate and bizarre as the patient's symptomatology.

As for the therapy evolved for this patient, it was he who developed it, not the author. The patient was taught simply how to experience various hypnotic phenomena. Thus he learned how to develop a negative hallucination for the author, for a part of the author such as his hand, his head, or his torso. He was taught to alter visual stimuli by experiencing them as coming from near at hand or from a remote distance. He was taught to hallucinate printed pages and printed words and various other objects, as well as movements by the author or by objects in the office. He learned to change and to distort visual stimuli. He could see the author smiling and experience it as frowning, and vice versa. He learned to see tears streaming down the face in a picture on the author's desk, he saw that face burst into a smile, and then he saw that face in the picture talking and he hallucinated the apparently spoken words. He saw a black-and-white picture in bright colors. He experienced visually a small oblong ashtray as square, as a circle, as tall, as flat, as transparent, as opaque, as of many different colors, as twisted into various shapes, as floating in midair, as moving back and forth or up and down rapidly, slowly, in various rhythms. In each of these teachings care was taken to make sure he understood the nature or kind of experience he was to learn; but, unless absolutely necessary, never the degree or extent of the suggested experience. Thus it was he who decided that a negative hallucination for a part of the author's body should be of the hand, the foot, the head, or the torso. The shapes in the twisting of the ashtray were determined entirely by him, and no effort was made to inquire what those shapes were. The words hallucinated as spoken by the face in the picture remained unknown to the author. The *kind* of task was the author's responsibility in this hypnotic teaching of the subject. The content was the patient's. *All of the teachings that he had been given or that would be given to him by the author, he was told, he was to use profitably and well in any needful situation.*

In relation to the auditory field one precaution was emphasized—namely, that he would hear clearly and easily every verbal stimulus and that he would listen most understandingly to all utterances. If he wished, he might have the speaker standing up,

sitting down, or leaning on a chair, but always he was to hear clearly and understand thoroughly.

Each of the various hypnotic phenomena was developed in this same detailed fashion until the author was convinced of the patient's competence. Great care was taken to ensure his appearance as a person alert, attentive, interested, understanding, responsive, and fully wide awake regardless of what hypnotic phenomena he was experiencing.

Posthypnotic suggestion and amnesia, while taught with the same meticulous care, were used directly by the author to ensure certain things. These were that the patient make the trip to the city where the examination was held with a generalized amnesia, but with a responsive alertness to meet every expected or unexpected development concerning the trip itself. Thus he made the trip and appeared in proper time for the examination but with an amnesia for, and a total unconcern about, the purpose of the trip. In his own words, "I just went comfortably. I read a novel that I had long wanted to read and I took it with me." His telephone calls to the author and to his wife were both the outcome of posthypnotic suggestion. He was told that he might forget telephoning his wife, but that he could "read" that fact upon seeing her and that this might make him realize the importance of promptly seeing the author, who knew the hour of his return flight. The amnesia on the way there was to prevent any building up of tension, and on the way back it served to let him rest without sensing unduly his fatigue or building up an elated tension over his probable success.

The final interview with the author was to give the patient a full recollection of all that occurred, all or any part of which he was at liberty to remember or to forget. Since then he has forgotten much that occurred, but of noteworthy significance is the fact that he can speak of his past oral examination experiences casually and that he took his next examination for a renewal of his driver's license quite unconcernedly. As for his "friend Henry," the patient now speaks of him as a rather absurdly emotional man.

## **BACKGROUND OF EXPERIMENTATION**

Since 1935 the author has many times induced hypnotic trances in normal college students to discover if they could take an examination successfully in a college course while in a posthypnotic trance state. The results were always equal to, or better than, what might have been expected in relation to their class grades. Unless special understandings had been given to the students, they always developed persistent spontaneous amnesia for having taken the examination, which had to be removed by the author. In some instances this amnesia was allowed to persist for as long a period as a year.

These experiences led the author to induce in professional persons the development of posthypnotic trance states during which they might give to students or colleagues (even psychiatrists) a prepared or impromptu lecture, present patients at a staff conference, discharge a day's duties on the ward, or spend a social evening or day with friends without the trance state being detected. They always succeeded, and similarly developed spontaneous amnesia which had to be removed by the author.

A third-year resident in psychiatry, who was an experimental subject of the author's but who was unaware of this special work, asked to be taught autohypnosis. Without inducing a hypnotic trance, the author casually and conversationally outlined various methods of autohypnosis, intending to give more adequate instruction later. About a month afterward, before any further instruction had been given, the author received a telephone call from the resident, who declared, "I must see you. It's four o'clock in the afternoon, and there's something I do not understand. May I come to your office?"

Upon arriving at the office, the resident stated very simply, "This morning I dressed to go to town [Detroit] for some shopping with a friend. I looked at the clock on the dresser and it was a few minutes of eight. I saw that I had just time to meet Dr. ——, have breakfast, and then catch the bus to town. I took a second look at the clock, and it read four o'clock. Then I noticed that the sun was shining through the west window, and then I turned and looked at the rest of the room. There was my bed all made up, with a lot of packages on it. I looked at some of the wrappings. They were from stores in Detroit. I opened a couple of them. They were things I had promised myself to buy months ago, but had completely forgotten about. That's when I knew I ought to see you, and here I am. Put me in a trance and see if my unconscious knows anything at all about this, because I don't."

The author gave a cue used in experiments with this subject, and a somnambulistic trance ensued. The subject, with open eyes, smiled and waited expectantly. The author then asked, "Do you know what happened?" The reply was, "I do now, but I don't when I'm awake." The author asked, "What do you want me to do?" "Ask me about everything, then wake me up and tell me." The author answered, "Would it be all right if I just awakened you and let you remember everything sequentially?" "I think that would be better, so wake me up so I can start."

The subject aroused from the trance state, appeared astonished, and said, "I'm sure you must know everything, but I'm just beginning to remember. Today I was off duty, and I had arranged to go to Detroit by bus with Dr. ——, who was also off duty, after we had breakfast together. But just after I looked at the clock I went into an autohypnotic trance. I had been thinking about autohypnosis since the day you discussed it with me. I had been impressed by your statements that, in developing autohypnosis, you cannot tell your unconscious mind all the things it should do and how it should do them, because that would be making it a conscious task. And it's also a useless task because your unconscious mind already knows what you know a lot better than you do. So I knew that I would have to go into autohypnosis unexpectedly. Now I have just remembered that this morning my unconscious mind simply took over, and there I was in an autohypnotic trance. Now I'll tell you what happened, because I am remembering things one by one just as they happened."

Then there followed a long, sequential detailed narrative of the day's events, with interspersed comments. The account included conversations with Dr. —— (also a psychiatrist) and with other friends, an accidental meeting with two former high-school classmates who had not been seen for more than eight years, eating lunch with Dr. ——

and the two friends at a favorite restaurant, shopping in various stores, purchasing four items long wished for but always previously forgotten, returning on the bus with Dr. —— putting the packages on the bed, and then turning to look at the clock as a self-determined cue for awaking.

This account was then related by both the resident and the author to various members of the hospital psychiatric staff. A few of them indignantly declared, with all the weight of their lack of knowledge, that a person in a hypnotic trance would necessarily act "like a zombi." This was disputed with equal indignation by Dr. ——.

A few weeks later, at a staff conference, the same resident presented several patients, discussed the clinical records, and answered questions adequately, even those asked by some unexpected visitors at the staff conference. The fact that the resident was in an autohypnotic trance throughout the conference was recognized only by the author, although it was strongly suspected by another staff member (not Dr. ——). He later demanded confirmation of his suspicions from the author. This being given, he emphatically discredited to his colleagues the "zombi" misunderstandings which had been previously expressed. To substantiate his statements, he called upon the resident, who was found to have a total and seemingly unbreakable amnesia for that particular staff conference, even when confronted by the typewritten record.

The fact was then established that behavior in an autohypnotic state may be difficult to differentiate from ordinary waking behavior. The author was then called upon to "restore" the resident's "loss of memory." A few cues given to the resident served to effect a recovery of the amnestic material along with a full awareness of the previous conscious unawareness. The resident then disclosed that such an occurrence had been secretly intended but for a much later staff conference.

# **Burden of Responsibility in Effective Psychotherapy**

Milton H. Erickson

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The following case material is presented because it offers so concisely and clearly a modus operandi in hypnotherapy with a type of patients who have had long experience in failing to derive desired benefits from extensive, traditionally oriented therapy. The three persons reported upon are typical of dozens of others that this author has seen over the years, and the results obtained have been remarkably good despite the fact that the patients were seen on only one occasion for an hour or two.

In each instance hypnosis was used for the specific purpose of placing the burden of responsibility for therapeutic results upon the patient himself after he himself had reached a definite conclusion that therapy would not help and that a last resort would be a hypnotic "miracle." In this author's understanding of psychotherapy, if a patient wants to believe in a "hypnotic miracle" so strongly that he will undertake the responsibility of making a recovery by virtue of his own actual behavior and continue that recovery, he is at liberty to do so under whatever guise he chooses, but neither the author nor the reader is obliged to regard the success of the therapy as a hypnotic miracle. The hypnosis was used solely as a modality by means of which to secure their cooperation in accepting the therapy they wanted. In other words, they were induced by hypnosis to acknowledge and act upon their own personal responsibility for successfully accepting the previously futilely sought and offered but actually rejected therapy.

## **CASES 1 AND 2**

A telephone call was received in the office from a man who stated that he wanted an appointment. He refused to give any reason except that it was for a proper medical reason he preferred to explain in person.

At the interview the man stated that he was suffering from Buerger's disease, that he was a diabetic, and that he had cardiac disease and high blood pressure—"Too much for a man with a family the size of mine and only 50 years old." He went on, "That isn't all. I've been psychoanalyzed for eight months for five hours a week. During that time my insulin dosage has had to be increased, I've gained 40 pounds, my blood pressure has gone up 35 points, and from 1½ packs of cigarettes I have gone up to 4½ packs a day. I am still the psychoanalyst's patient, I have an appointment with him for Monday, but he is paid up to date. He says he is slowly uncovering the psychodynamics of my self-destructive behavior. I myself think that I'm digging my grave with power tools."

Then with utter gravity he asked, "Would it be unethical for you, knowing that I am another physician's patient, to give me the benefit of two hours of hypnotherapy this afternoon? My analyst disapproves of hypnosis, but he certainly hasn't done me any good."

The simple reply was made that, from my point of view, the question of professional ethics did not enter into the situation at all, that every patient, including mine, has the right to seek from any duly trained and licensed physician whatever proper help he desires, that medical ethics should properly be centered about the patient's welfare rather than a physician's desire to keep a patient.

He was then told to close his eyes and repeat his story from beginning to end, to do this slowly, carefully, to drop out the question of ethics and in its place to specify what he wanted from the author. This he was to do slowly, thoughtfully, appraisingly, and as he did so, the mere sound of his own voice would serve to induce in him a satisfactory trance in which he could continue to talk to the author, listen to the author, answer questions, *do anything asked of him by the author and that he would find himself under a most powerful compulsion to do exactly that which was indicated.*

The man was taken aback at these unexpected instructions, but leaned back in his chair, closed his eyes, and slowly began his recitation with pertinent additions. Shortly his voice began to trail off, indicating that he was developing a trance, and he had to be told several times to speak more loudly and clearly.

No mention was made of the question of ethics, but with a wealth of detail *he outlined the therapy which he thought to be indicated.* He was asked to repeat this several times, and each time he did so more positively, emphatically, and inclusively.

After four such repetitions the author pointed out that he, as a physician, had offered no advice or therapeutic or corrective suggestions, that every item in that regard had come from the patient himself, *and that he would find himself under the powerful compulsion arising from within him to do everything that he thought was indicated.* To this was added that he could remember any selected parts of his trance state, but regardless of what he remembered or did not remember *he would be under a most powerful compulsion to do all that he himself thought to be indicated.*

He was aroused, a casual conversation initiated, and he left.

A year later, in excellent physical shape, he brought in an old childhood friend of his and stated very briefly, "I eat right, I sleep good, my weight is normal, my habits regular, my diabetes is under good control, my Buerger's disease has not progressed, my blood pressure is normal, I never went back to my analyst, my business is better than ever, I'm a new man and my whole family thanks you. Now this man is my boyhood pal, he's got emphysema, a very bad heart, look at his swollen ankles, and he smokes like a chimney. He's been under a doctor's care for years." (This man was smoking one cigarette and had another out of the package ready to light.)

"Treat him the way you did me, because I told him you talked to me in a way that just takes complete hold of you."

He left the office with the new patient remaining.

Essentially the same procedure was carried out, checking against the first patient's file as this was done, and almost precisely the same words were used that were applicable.

At the close of the interview the man left, leaving his cigarettes behind him.

Six months later a long distance call was received from the first patient, stating, "Well, the news is bad but you should feel good. Joe died last night in his sleep from a coronary attack. After he left your office, he never smoked another cigarette, his emphysema was much better, and he enjoyed life instead of worrying all the time about running out of cigarettes and about the cigarettes making his condition worse."

### CASE 3

A telephone call was received early in the morning. A man's voice said, "I've just realized that my condition is an emergency. How soon can I come in?" He was told that a cancellation had just been received and he could be seen in one hour's time. At the specified time a 32-year-old man walked in, smoking a cigarette, and stated hastily, "I'm a chronic smoker. I need help. I've been in psychotherapy twice a week for two years. I want to quit smoking. I can't. Look! I've got six packs in my pockets right now so I can't run out of them. My analyst says I am making progress, but I was only carrying two packs a day when I first went to him. Then slowly I increased my reserve and emergency supplies until it is up to six packs a day. I'm afraid to leave home without at least six packs in my pocket. I read about you. I want you to hypnotize me out of smoking."

He was assured that *this could not be done*, but that the author would like to have him retell his story slowly, carefully, with his eyes closed, and to give it in good detail, letting his unconscious mind (he was a college graduate) take over all dominance, and that, as he related his story, he was to specify in full and comprehensive detail exactly what it was he wished in relation to cigarettes, but that during his narrative he would find himself going unaccountably into a deep and deeper trance without any interruption of his story.

The procedure and results were almost exactly comparable to the two preceding cases.

Two years later another telephone call was received from the same man asking for a half-hour appointment at noon and volunteering to pay an hour's fee. He again declared it to be an emergency.

Exactly at noon he came striding into the office and remarked. "You won't recognize me. You only saw me for an hour two years ago. I am Mr. X, and I had had two years of analysis for excessive smoking with only an increase in my smoking. I can't remember

what went on when I saw you, but I do know that I haven't smoked a cigarette since then. It's embarrassing, too, because I can't even light one for my girl. I've tried many times, but I can't.

"But I went back to that analyst, and he took all the credit for my stopping smoking. I didn't tell him about you. I thought I needed to see him about what he called a character defect in me. Here I am with a college education, and the longest I've worked at a job has been three months. I can always get a job, but I'm 34 now, and four years of psychoanalysis has wound up with my last job lasting only five weeks. But I'm 34 now, and I've got the promise of another job with a future to it. Now I want you to do something about whatever is wrong with me because I've quit the analyst. I've had better jobs than the one coming up, but there is nothing to hold me to it. It will be the same old story. Now, hypnotize me and do what I should have had you do two years ago, whatever that was."

His former case record was looked up to refresh the author's memory. As precisely as possible the technique of the previous occasion was followed, and he was again dismissed.

Two years later he was still at the "new job" but had been promoted to a managerial position which he has held for over a year. A chance meeting with him disclosed this fact and also that he is married and a father and that his wife voluntarily gave up smoking.

## **SUMMARY**

Three of a long series of similar cases are reported here to illustrate the use of hypnosis as a technique of deliberately shifting from the therapist to the patient the entire burden of both defining the psychotherapy desired and the responsibility for accepting it. Often this is the most difficult part of psychotherapy. In all the patients this author has handled successfully in this manner, all had a history of a steady, persistent search for therapy, but a failure to take the responsibility of accepting it. Additionally, all such patients with whom the author has had a known success were of a superior intelligence level.

In traditional ritualistic and conventional psychotherapies much, often futile, effort is made to induce patients to assume adequately the responsibility for their own behavior and for future effort. This is done without regard for the patients' consciously thinking and firmly believing as an absolute truth the futility of any effort on their own part. But utilizing hypnosis as a technique of deliberately and intentionally shifting to the patients their own burden of responsibility for therapeutic results and having them emphatically and repetitiously affirm and confirm in their own thought formulations and their own expressed verbalizations of their own desires, needs and intentions at the level of their own unconscious mentation, forces the therapeutic goals to become the patient's own goals, not those merely offered by the therapist he is visiting.

That this procedure always is successful is not true. There are many patients who want therapy but do not accept it until adequately motivated. There are other patients whose

goal is no more than the continuous seeking of therapy but not the accepting of it. With this type of patient hypnotherapy fails as completely as do other forms of therapy.

# **Use of Symptoms as an Integral Part of Hypnotherapy**

Milton H. Erickson

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In dealing with any type of patient clinically there is a most important consideration that should be kept constantly in mind. This is that the patient's needs as a human personality should be an ever-present question for the therapist to ensure recognition at each manifestation. Merely to make a correct diagnosis of the illness and to know the correct method of treatment is not enough. Fully as important is that the patient be receptive of the therapy and cooperative in regard to it. Without the patient's full cooperativeness therapeutic results are delayed, distorted, limited, or even prevented. Too often the therapist regards patients as necessarily logical, understanding, in full possession of their faculties—in brief, as reasonable and informed human beings. Yet it is a matter of common knowledge often overlooked, disregarded, or rejected that patients can be silly, forgetful, absurd, unreasonable, illogical, incapable of acting with common sense, and very often governed and directed in their behavior by emotions and by unknown, unrecognizable, and perhaps undiscoverable unconscious needs and forces which are far from reasonable, logical, or sensible. To attempt therapy upon a patient only apparently sensible, reasonable, and intelligent when that patient may actually be governed by unconscious forces and emotions neither overtly shown nor even known, to overlook the unconscious mind for possible significant information, can lead easily to failure or to unsatisfactory results. Nor should seemingly intelligent, rational, and cooperative behavior ever be allowed to mislead the therapist into an oversight of the fact that the patient is still human and hence easily the victim of fears and foibles, of all those unknown experiential learnings that have been relegated to his unconscious mind and that he may never become aware of or ever show just what the self may be like under the outward placid surface. Nor should therapists have so little regard for their patients that they fail to make allowance for human weaknesses and irrationality. Too often it is not the strengths of the person that are vital in the therapeutic situation. Rather, the dominant forces that control the entire situation may derive from weaknesses, illogical behavior, unreasonableness, and obviously false and misleading attitudes of various sorts.

Therapists wishing to help their patients should never scorn, condemn, or reject any part of a patient's conduct simply because it is obstructive, unreasonable, or even irrational. The patient's behavior is a part of the problem brought into the office; it constitutes the personal environment within which the therapy must take effect; it may constitute the dominant force in the total patient-doctor relationship. Since whatever patients bring into the office is in some way both a part of them and a part of their problem, the patient should be viewed with a sympathetic eye appraising the totality which confronts the therapist. In so doing therapists should not limit themselves to an appraisal of what is good and reasonable as offering possible foundations for therapeutic procedures.

Sometimes—in fact, many more times than is realized—therapy can be firmly established on a sound basis only by the utilization of silly, absurd, irrational, and contradictory manifestations. One's professional dignity is not involved, but one's professional competence is.

To illustrate from clinical experience, case history material will be cited, some from a nonhypnotic therapeutic situation, some from situations involving the use of hypnosis.

### **CASE REPORT 1**

George had been a patient in a mental hospital for five years. His identity had never been established. He was simply a stranger around the age of 25 who had been picked up by the police for irrational behavior and committed to the state mental hospital. During those five years he had said, "My name is George," "Good morning," and "Good night," but these were his only rational utterances. He uttered otherwise a continuous word-salad completely meaningless as far as could be determined. It was made up of sounds, syllables, words, and incomplete phrases. For the first three years he sat on a bench at the front door of the ward and eagerly leaped up and poured forth his word-salad most urgently to everyone who entered the ward. Otherwise, he merely sat quietly, mumbling his word-salad to himself. Innumerable patient efforts had been made by psychiatrists, psychologists, nurses, social service workers, other personnel, and even fellow patients to secure intelligible remarks from him, all in vain. George talked only one way, the word-salad way. After approximately three years he continued to greet persons who entered the ward with an outburst of meaningless words, but in between times he sat silently on the bench, appearing mildly depressed but somewhat angrily uttering a few minutes of word-salad when approached and questioned.

The author joined the hospital staff in the sixth year of George's stay. The available information about his ward behavior was secured. It was learned also that patients or ward personnel could sit on the bench beside him without eliciting his word-salad so long as they did not speak to him. With this total of information a therapeutic plan was devised. A secretary recorded in shorthand the word-salads with which he so urgently greeted those who entered the ward. These transcribed recordings were studied, but no meaning could be discovered. These word-salads were carefully paraphrased, using words that were least likely to be found in George's productions, and an extensive study was made of these until the author could improvise a word-salad similar in pattern to George's, but utilizing a different vocabulary.

Then all entrances to the ward were made through a side door some distance down the corridor from George. The author then began the practice of sitting silently on the bench beside George daily for increasing lengths of time until the span of an hour was reached. Then, at the next sitting, the author, addressing the empty air, identified himself verbally. George made no response.

The next day the identification was addressed directly to George. He spat out an angry stretch of word salad to which the author replied, in tones of courtesy and responsiveness,

with an equal amount of his own carefully contrived word-salad. George appeared puzzled and, when the author finished, George uttered another contribution with an inquiring intonation. As if replying the author verbalized still further word-salad. After a half-dozen interchanges, George lapsed into silence, and the author promptly went about other matters.

The next morning appropriate greetings were exchanged employing proper names by both. Then George launched into a long word-salad speech to which the author courteously replied in kind. There followed then brief interchanges of long and short utterances of word-salad until George fell silent and the author went to other duties.

This continued for some time. Then George, after returning the morning greeting, made meaningless utterances without pause for four hours. It taxed the author greatly to miss lunch and to make a full reply in kind. George listened attentively and made a two-hour reply, to which a weary two-hour response was made. (George was noted to watch the clock throughout the day.)

The next morning George returned the usual greeting properly but added about two sentences of nonsense. The author replied with a similar length of nonsense. George replied, "Talk sense, Doctor." "Certainly, I'll be glad to. What is your last name?" "O'Donovan, and it's about time somebody who knows how to talk asked. Over five years in this lousy joint" . . . (to which was added a sentence or two of word-salad). The author replied, "I'm glad to get your name, George. Five years is too long a time" . . . (and about two sentences of word-salad were added).

The rest of the account is as might be expected. A complete history sprinkled with bits of word-salad was obtained by inquiries judiciously salted with word-salad. His clinical course—never completely free of word-salad, which was eventually reduced to occasional unintelligible mumbles—was excellent. Within a year he had left the hospital, was gainfully employed, and at increasingly longer intervals returned to the hospital to report his continued and improving adjustment. Nevertheless, he invariably initiated his report or terminated it with a bit of word-salad, always expecting the same from the author. Yet he could, as he frequently did on these visits, comment wryly, "Nothing like a little nonsense in life, is there, Doctor?" to which he obviously expected and received a sensible expression of agreement to which was added a brief utterance of nonsense. After he had been out of the hospital continuously for three years of fully satisfactory adjustment, contact was lost with him except for a cheerful postcard from another city. This bore a brief but satisfactory summary of his adjustments in a distant city. It was signed properly, but following his name was a jumble of syllables. There was no return address. He was ending the relationship on his terms of adequate understanding.

During the course of his psychotherapy he was found hypnotizable, developing a medium to deep trance in about 15 minutes. However, his trance behavior was entirely comparable to his waking behavior, and it offered no therapeutic advantages, although repeated tests were made. Every therapeutic interview was characterized by the judicious use of an appropriate amount of word-salad.

The above case represents a rather extreme example of meeting a patient at the level of his decidedly serious problem. The author was at first rather censoriously criticized by others, but when it became apparent that inexplicable imperative needs of the patient were being met, there was no further adverse comment.

The next report is decidedly different. Although no psychosis was involved, there existed such an irrational rigidity of emotional conviction that the patient appeared to be inaccessible.

## **CASE REPORT 2**

A man in his early forties approached a dentist friend of the author, explaining his situation at great length, perspiring freely as he did so and manifesting much fear and trepidation. His account was that he had recently read a news story about the use of hypnosis in dentistry. This reminded him of his college days, when he had many times acted as a hypnotic subject for experimental purposes in the psychology laboratory. In these experiences he easily and invariably achieved the somnambulistic state with profound amnesias still persisting for his trance experiences as such, but with a still present fair memory of the experimental accounts subsequently shown to him.

For some reason not recalled by him but referred to as "some horribly painful experience connected with dentistry in some way" he had not visited a dentist for over 20 years despite the fact that he was well aware that he was seriously in need of dental care. His direct explanation was, "I just can't bring myself to see a dentist. Dentistry is a painful thing. It has to be painful. There are no ifs, ands, or buts about it. Dentistry has to be connected with pain. Even with anesthetic there is pain after it wears off. No matter what you do in dentistry, there is someplace that becomes terribly sensitive." There was more of this almost irrational obsessional thinking, but the foregoing is an adequate example.

The news story about hypnodontia made him hopeful that in some way his terror of dentistry could be overcome. Hence he made telephone calls about hypnodontia until he located the author's friend.

That dentist agreed to see him and in a preliminary session gave the patient a careful explanation of hypnoanesthesia. The man developed an excellent somnambulistic trance and easily developed glove anesthesia and then a profound anesthesia of the fingers as tested by overflexing forcibly the terminal phalanx. The dentist then attempted to produce mandibular anesthesia. This failed completely, arousing the dentist's intense interest in the problem apparently confronting him. An entire evening was spent the next day by the dentist endeavoring by one technique or another to produce dental anesthesia. The patient could develop surgical anesthesia anywhere except in relation to his mouth. Instead of anesthesia a seeming hyperesthesia developed.

Another dentist well-experienced in hypnosis was called in to work with the patient hypnotically. The two dentists spent an intensive afternoon and evening with a profoundly somnambulistic hypnotic subject who was surgically anesthetic and able to withstand any painful stimulus they were willing to administer to his body. The patient had his eyes open throughout the trance, and he was most interested in his hypnoanesthesia.

However, a touch on the patient's lip, chin, or the angle of his jaw would result in a flood of perspiration, a flushing of the skin, and complaints that the slightest touch seemed to be extremely painful, and the patient would break down hypnotically established neck and body rigidity in order to wince and to withdraw from such touches.

Other dentists were questioned for suggestions and advice to no avail, and the patient was finally sent to the author together with a typed account of the findings of the two dentists and with a typed example of the patient's verbalizations about dental pain.

The interview with the patient and the induction of a deep trance permitted an easy confirmation of the report by the dentists.

Scrutiny of the typed account of his obsessive-like utterances about pain and dentistry, and close listening when he verbalized afresh his convictions about dentistry and pain, suggested a possible likely course of action. Since the dentists had expressed their interest in any experimental work the author might do, the patient was dismissed with an instruction to make an appointment with the first dentist. When the appointment was made, the dentist telephoned his friend and the author.

At the proper time the patient appeared and at the author's request took a seat in the dental chair with his face flushed and perspiring and in a general state of utter fear. In spite of that he developed a deep somnambulistic trance in rapport with the two dentists as well as the author.

The intended approach to dental anesthesia and its rationale had been previously discussed with the dentists, and it was agreed the entire procedure should be done with no preliminary preparation of the patient.

When all was in readiness, the patient, still in a deep somnambulistic trance, tremulous, and with his face flushed and perspiring, was asked to listen closely to a reading of a typed account of his statements about dentistry and pain, which included the statements quoted above. He listened with utter intensity, and as the last statement was read, he was told seriously and impressively, "You are entirely right, absolutely right, and you summarize it most adequately in one of your statements. Let me read it again, 'No matter what you do in dentistry there is always some place that becomes terribly sensitive.' You are completely correct. As you sit there in the dental chair, the dentist will be to your right. Hence, you may now, at once, safely extend your left hand and arm, there to let it stay suspended as if frozen rigidly in place. And you may turn your face and see it there, and as you do so you will note that your left hand, so completely out of reach of

everything, safe from any touch, from the slightest breath of air, is becoming so terribly, so awfully, so horribly hypersensitive, so unbelievably hypersensitive that in another minute all of the sensitivity of your entire body will drain into that hand. And since the dentist in working with you will not touch your hand where all the hypersensitivity is, he can easily do all the dental work you need. Now make an unforgettable mental note of just where that hypersensitive left hand is, and turn your head and let the dentist go to work.”

The patient turned his head, fearfully voiced a plea that the dentist be careful of his left hand, and, comforted by the dentist’s reassurance, opened his mouth in complete readiness.

The facial flush and the perspiration had vanished. It was noted that his left hand was flushed and perspiring. The dentist then took charge completely and, by means of posthypnotic suggestions, convinced the patient that each time he sat in the dental chair, he would develop left-handed hyperesthesia so that his dental work could be done. At no time was any oral anesthesia ever suggested.

The rationale of this approach is rather clear and simple. The patient was rigidly fixated on the idea that a painful hypersensitivity must inevitably accompany dentistry. Attempts at oral anesthesia fixated his attention on oral sensations. Acceptance of his neurotic belief and employing it to create hypnotically an area of extreme hypersensitivity met his need to be able to experience pain without having to do so. Thus all pain expectation was centered in his hand, resulting in an anesthesia of the rest of his body, including his mouth.

On the occasion of the termination of the last dental visit, the dentist tested the patient for pain sensitivity elsewhere in his body and found that a general surgical anesthesia existed.

This second case represents the hypnotic utilization, with an augmentation of it, of the actual barrier to the patient’s capacity to develop the needful manifestation that he wished. It is true that the logic of the entire procedure is decidedly specious, but it must be borne in mind that the patient’s total attitudinal set was equally specious. Cold hard logic, presentation of scientific facts, any sensible reasonable approach would have been useless. Utilizing the patient’s own neurotic irrationality to affirm and confirm a simple extension of his neurotic fixation relieved him of all unrecognized unconscious needs to defend his neuroticism against all assaults. A systematic analysis of exactly what kind of thinking the patient brought into the office led readily to the solution of his problem. This same sort of situation existed in the third case to be cited immediately.

### **CASE REPORT 3**

A thrice-divorced young woman sought psychiatric help “for just one problem, that’s all, and I will tell you the problem right away, but I don’t want any treatment for anything else. That you must promise me.”

The gist of her story was that at age 18 she had impulsively married a handsome and, as she discovered later, dissolute man of 25 very much against parental wishes. The wedding night she discovered that he was a secret alcoholic, and the attempted consummation of the marriage in his state of intoxication was a hideous travesty to her. He blamed her entirely, berated her unmercifully, described her rudely as "having a refrigerated derriere," left her alone, and spent the night with a prostitute. Nevertheless, she continued to live with him hopefully despite his continued use of the description that he had bestowed on her the first night. After some months of wretched effort to prove to him that she was a woman of normal sexuality, she secured a divorce, secretly fearing that he was correct in his appraisal of her lack of sexuality.

A year later, in an overcompensatory effort to avoid the kind of trouble she had encountered in her first marriage, she married a highly effeminate man whose latent homosexuality disclosed itself on their wedding night by his horrified aversion to her body. His reason for marrying her, since she did have some wealth in her own name, was to secure "proper social standing in the community." He was completely outraged and incensed by her "indecent haste" to consummate the marriage and administered a rather rigidly prim reprimand. He spent the night, as she learned later, with a male friend who helped him bemoan his unfortunate plight. Her reaction was one of complete self-blame, no understanding of her husband's actual sexuality, and she succeeded in convincing herself that he had applied the same derogatory description of her as had her first husband. The marriage continued for nearly a year, chiefly by virtue of the fact that he spent most of his nights at his mother's apartment. An actual attempt at consummation after about four months proved to be only a revolting experience for him and a conviction, because of her entire lack of response to him, that she was absolutely lacking in sexual feelings.

After they finally got a divorce, she secured employment and gave up any hope of a normal life. After about two years, while living a very sheltered, retiring life, she met by chance a man five years her senior who was successfully engaged in an exciting, but to soberer minds, a somewhat questionable, promotional activity in real estate. His charm, his easily likeable personality, his knowledge of the world, his attentiveness and courtesy led her to make a third venture into matrimony.

They were married in the morning and then went to an expensive suite in a hotel in a nearby town, where he spent the day with her presenting innumerable plausible reasons in an effort to persuade her to turn over to him all of her property for him "to develop," thus to secure larger returns.

As he presented his arguments with increasing persuasiveness but with no display of emotional interest in her, a recollection of the beginnings of her first marriage raised sickening doubts in her mind. Her husband, becoming impatient with her slowness to accept his arguments, suddenly noted the horrified, doubting expression on her face. Infuriated, he threw her on the bed and had violent intercourse with her while he denounced her for her lack of response, ridiculed her, told her how he had spent the

previous night with a responsive prostitute; he finally walked out on her "to find someone who didn't have what my first husband said I had." A divorce was promptly secured by her.

Now she was interested in a young man who met the approval of her lawyer, her banker, her parents, her minister, and her friends. She desperately wanted to marry him, yet was equally desperate in her desire not to cause him any unhappiness. Her purpose in seeking psychiatric aid was to have her "deficiency corrected." With extreme embarrassment, in plain simple Anglo-Saxon so that there could be no possibility of any misunderstanding by the author, she made matters painfully clear. She wanted, no more, no less, the chill she felt continuously, no matter what she wore, no matter how warm the seat she sat on, to be removed from her buttocks. This wretchedly cold feeling had been present, painfully present, since the first evening of her third marriage. The prompt dissolution of that marriage had not lessened the feeling of a subjectively recognizable coldness that had developed following the third husband's devastating criticism of her. This had plagued her continuously, and she found herself to be too embarrassed to seek medical aid. Recently, in night school courses she was taking, she had read about hypnosis, hypnotic phenomena, and hypnotherapy. Seeing the author's name given as a reference, she had come to Arizona for immediate, direct, and specific therapy.

Her desire for therapy was almost irrational in its intensity. She was convinced of the circumscribed character of her problem and could not even listen to any attempted exposition of the general character of her difficulties. She was rigidly certain that once the "coldness" was removed, all would be well. She asserted an absolute willingness to cooperate in any way to achieve her goal of a slightly elevated temperature in place of the gluteal coldness. In the desperation of her desire for help it was not possible for her to see the humorous effect of her use of vulgar language to ensure the author's exact understanding of her problem in terms of the exact words that had been used to describe it to her originally.

After a laborious three-hour effort to secure her interest in the author's views, it became apparent that therapy would have to be accomplished, if possible at all, in full accord with her persistent demands.

Much speculative thought was given to the content of her limited understandings to devise some kind of therapeutic approach. Since she wanted hypnosis desperately, she became an easy somnambulistic subject, as is sometimes the case with this type of patient. Indeed, she was one of the most receptive and amenable subjects the author has encountered, and she agreed readily to accept and act upon any hypnotic suggestion given her. The specious explanation given her was that, since she wanted her problem corrected by hypnosis, it was requisite that she be thoroughly trained in all hypnotic phenomena so that every possible necessary hypnotic element requisite for her cure would be experientially known to her. Actually, the real purpose was to develop in her a receptiveness, a responsiveness, a feeling of complete acceptance, and a willingness to execute adequately any suggestion offered her.

The next step was to ask her to make a systematic study by filling her bathtub with water of increasingly higher temperature until the water was hot enough to produce goose bumps on her legs, which were the only part of her to be immersed in the bathtub. After much labor she succeeded in achieving this. She was then presented with a laboriously detailed explanation of how an overloading of the thermal receptors by excessive warmth would overflow into the cold receptors of the skin, thereby resulting in gooseflesh. The success of this venture, in the author's opinion, played a large part in the successful therapy. It supplied her with indisputable visual proof that heat can produce the concomitants of coldness and that this could be done in a definitely limited area of the body. From that point on there existed for her no doubts or fears of the author's understandings or competence.

Therapy was then continued by inducing a deep trance and by carefully worded suggestions, making her feel privately—a feeling just to be enjoyed within herself—an exaggerated, utterly intense, and inordinate pride in having the secret knowledge shared only with me that at least a part of her body could experience heat by a subjective cold response. Thus, by repetitious suggestion it was emphatically impressed upon her that this must always and forever be regarded as her own private pleasurable joy. The reason for this secrecy was to intensify her feeling and to preclude any disparagement by anyone in whom she might confide.

Then, bit by bit, suggestions were cautiously given her that, just as her calves had developed cold receptor responses to heat, so could the cold receptors of her thighs, of her buttocks, and her abdomen. Her acceptance of these ideas was ensured by a sudden shift to a discussion of the “thrills and tingles of complete happiness and ecstatic joy that race so delightfully up and down the spine of the little girl who receives the new dolly so desperately wanted and never really expected.”

This complex idea was impressed upon her with much repetition and with careful changes in the key words of “thrills” and “tingles” by making the phrase “thrills and chills and tingles” and then in a random fashion omitting one and then another of the three words. Also, since she came from a northern state and had a reasonably happy childhood, the “tingling delights of sledding down hill on a tinglingly cold day,” “the rapturous joys of a cold, cold dish of ice cream on a hot summer’s day,” and similar plays on words associated with pleasures safely remote in her history, were woven into a whole series of suggestions.

This was repeated for a number of sessions, always impressing upon her the need for an unconscious retention of the ideas, the need to incorporate them, and everything else she had been taught in therapy, into the warp and woof of her very existence, and yet to keep the knowledge of all this safely secret forever from her conscious mind, just knowing in some vague and satisfying way that she possessed within her a knowledge and an understanding of a personal value, beauty, and happiness.

Very rapidly there occurred a marked change in her general behavior. The tension, the urgency, the overall anxiety disappeared; she went for long scenic drives, and she began speaking of visiting Phoenix again.

Then one day she entered the office hesitantly, diffidently, blushing deeply and keeping her eyes downcast. After about 15 minutes, almost in the voice of a small child, she asked, "Can I tell you a secret, a very important secret that's all mine., my special secret that belongs all to me?" The reply given her was, "I think that if you think it over very carefully, you will find that you probably can tell your psychiatrist because he will understand."

After another seven minutes she said softly, "I've got to tell it in a special way that I know you will understand. It's what I said when I first came to you, only it's all different now." Then, in completely vulgar terms, with many blushes, she stated in essence, "I like being a frozen-posteriored creature."

To the author that signified that she needed no further therapy, and the years that have passed, her successful fourth marriage, her completion of college during the first years of this marriage, and her subsequent entrance happily into the pleasures of motherhood have all confirmed the success of therapy.

And what was her problem? An impulsive marriage in the best of good faith, but a wretchedly mistaken marriage as she immediately discovered; a second mistaken marriage to correct the trauma of the first, promptly discovered to be another mistake that was slowly corrected only so far as the marital state was concerned, but with only an intensification of her traumas; a third desperate marriage entered in good faith to correct, if possible, the injuries of the past, which only resulted in further injury. Then came the acute realization of her therapeutic needs when a genuinely good marriage presented itself.

And what was her therapy? An unhappy succession of events had progressively emphasized the trauma centering about a vital need in her life, her fulfillment as a woman. These events had degraded her in her own eyes and had led her unconsciously to summarize her total unhappiness in a circumscribed way. Then she sought circumscribed therapy, only circumscribed therapy. This was presented to her in such a fashion that, even as she had circumscribed everything, she was in a position to enlarge properly her whole problem. Her thinking about her problem had been emotionally repressed, largely at an unconscious level. Her therapy permitted her to do the same type of thinking but to include in it not only the events leading to her problem but the emotional values dating all the way back to her childhood. Then, once she had achieved her goals, at the level of unconscious motivation she felt compelled to verbalize her original presenting complaint but with a totally different meaning and perspective. By doing this she freed herself from any dependency upon the therapist and then could go her way, finding her own proper goals in life.

## **CONCLUDING COMMENT**

These three different case histories are presented to illustrate the importance in therapy of doing what appears to be most important to the patient, that which constitutes an expression of the distorted thoughts and emotions of the patient. The therapist's task should not be a proselytizing of the patient with his own beliefs and understandings. No patient can really understand the understandings of his therapist nor does he need them. What is needed is the development of a therapeutic situation permitting the patient to use his own thinking, his own understandings, his own emotions in the way that best fits him in his scheme of life.

Each of the patients reported on has no real understanding of what their therapist thinks, knows, believes, likes, or dislikes. They know primarily that in some peculiar way they began to unsnarl their lives in a fashion as inexplicable as was the fashion in which they had once snarled their thinking and their emotions.

# Hypnosis in Obstetrics: Utilizing Experiential Learnings

Milton H. Erickson

Unpublished manuscript, circa 1950s.

To present in 20 minutes the subject of hypnosis in obstetrics is a rather difficult task. However, I shall assume that my major obligation is to present to you certain general considerations and then to rely upon your own interests and desires for more detailed information which will lead you into further exploration of this topic.

I shall begin by defining hypnosis, as one needs to understand it in a clinical sense. It is a state of consciousness—not unconsciousness or sleep—a state of consciousness or awareness in which there is a marked receptiveness to ideas and understandings and an increased willingness to respond either positively or negatively to those ideas.

It derives from processes and functionings within the patient. The operator is merely someone who can offer intelligent advice and instruction to the patient and thus elicit from the patient the behavioral responses best fitted to the situation.

*Hypnosis is not some mystical procedure, but rather a systematic utilization of experiential learnings—that is, the extensive learnings acquired through the process of living itself.* For example, mention may be made of hypnotic anesthesia, or hypnotic amnesia, but these are no more than learnings of everyday living utilized in an orderly, controlled, and directed fashion. For example, nearly everyone has had the experience of losing a painful headache during a suspense movie without medication of any sort. Similarly, everyone has developed an anesthesia for the sensation of shoes on the feet, glasses on the face, and a collar around the neck.

Comparably we all know how effectively the news of the sudden, unexpected death of a loved one can instantly destroy a ravenous appetite or even completely arrest the physiological processes of digestion already under way.

All of us have a tremendous number of these generally unrecognized psychological and somatic learnings and conditionings, and it is the intelligent use of these that constitutes an effectual use of hypnosis.

In obstetrics, as in no other field of medicine, the patient occupies a dominant role for months as an individual undergoing an extensive progressive alteration, not only somatically but psychologically, in all personal, social, economic and temporal relationships. Hence, there comes into play throughout pregnancy, as well as delivery, a multitude of forces deriving from the personality as a whole and from the special attitudes, beliefs, understandings, learnings, and conditionings acquired during the patient's lifetime.

The history of obstetrics is marked by a continual striving to introduce into the delivery room various procedures intended to facilitate delivery and to render it a pleasing experience both to the patient and to the physician. Medications of many varieties, surgical procedures, and mechanical aids have all been introduced from time to time, with various acclaims, but the obstetrician's search for improved methodologies still continues with an awareness that the search should embrace every avenue of understanding and not be restricted to a further development of just one field of understanding.

It is for this reason that there is a growing interest in the use of hypnosis in obstetrics. The slow progressive development of psychosomatic medicine since the 1920s, and the many experimental and clinical studies demonstrating effectively the extensive interrelationships between the mental functioning of the individual and his physiological processes, have now served to make many people aware that a business worry or a hysterical fear can manifest itself in a stomach ulcer, colitis, chronic backache, or migrainous headaches—just to cite common examples.

Against this general background of the general understandings derived from psychosomatic medicine, hypnosis is gaining increasing acceptance in obstetrics as a significant scientific methodology. And it is gaining that acceptance not because it is a mystical art or a dramatic procedure of thrusting needles through tissues and suggesting, "arms as rigid as iron bars." Instead, it is gaining acceptance because of its valuable ability to enlist as fully as possible the patient's own capabilities and potentialities at both psychological and physiological levels of functioning.

It matters not whether the use of hypnosis in obstetrics is called psychosomatic obstetrics, or systematic education of the mother in childbirth as a normal physiological process, or the *Grantley Dick Read Method of Childbirth Without Fear*, or progressive psychosomatic relaxation, or simply hypnosis in obstetrics. The essential consideration is the enlistment of the expectant mother as an adequately responsive participant in a normal physiological process of great personal and social significance.

Now the questions arise:

1. At what time, or when, does one use hypnosis in obstetrics?
2. Who can be hypnotized?
3. What are the dangers?
4. What type of case warrants its use?
5. How is it done?
6. Where can a knowledge of hypnotic techniques be obtained?
7. What specifically can hypnosis accomplish, both generally and in individual cases?
8. And finally, just what excuse is there for using hypnosis when there are many other methods?

To take up the last question first, whenever there is a wealth of remedies for any one condition, their inadequacy is thereby signified. For example, each week a new tranquilizer comes on the market, guaranteed to cure everything, until replaced by next week's preparation with the same claims.

But more seriously, the real need for introducing hypnosis into the obstetrical field is the opportunity it offers to secure from the patient full, earnest, happy, and confident cooperation with the physician during pregnancy, delivery, and the postpartum period. Anything that can effect good cooperation between patient and physician in achieving an important goal is worthy of consideration.

Perhaps the next question should concern the dangers of hypnosis.

In over 30 years of experimental and clinical work with hypnosis I have not been able to discover any harmful effects, nor have colleagues with extensive experience in the use of hypnosis reported any to me—despite repeated inquiries. I do know that people of little and even no experience with hypnosis will gladly tell all manner of tales about the harmfulness of hypnosis, sometimes even believing the tales themselves. And I do know that stupid or uninformed people sometimes use hypnosis in the wrong way, but any harm that results comes not from the hypnosis, but from the mistaken or misdirected behavior associated with hypnosis.

As for the next question—who can be hypnotized—the answer is simply that any normal person and some abnormal persons can be hypnotized, provided there is adequate motivation. In pregnancy there is usually a great deal of motivation to achieve a delivery and a postpartum recovery of a most pleasing sort, hence the motivation among informed obstetrical patients is high.

As for the question of where one can learn medical hypnosis, I can state emphatically, in agreement with the AMA recommendations, that it can best be learned and should only be learned under medical, or dental, or psychological auspices. There are instructors who are reputable and competent clinicians as well as teachers; they can meet the needs of physicians interested in hypnosis as a professional methodology. Instruction by quacks, stage hypnotists, charlatans who brag about being the world's fastest hypnotists, and the numerous variously named American Institutes of Accredited Hypnotists, are all to be avoided in the same way a physician would avoid taking instruction in physical examination from a chiropractor. Medical teaching properly should always be on a high ethical and professional level, and the stage hypnotist or the charlatan with no degree or with a diploma-mill degree does not qualify.

As for the appropriate time at which to use hypnosis in obstetrics, the answer is that some obstetricians prefer the last trimester, some the first trimester, but actually it should be a matter of clinical choice and judgment. If employed only for the delivery and postpartum period, the third trimester is adequate time.

However, it is only reasonable to employ hypnosis to meet the problems of nausea and vomiting and weight gain during pregnancy, since the patient's full cooperation in all regards is desired, and hypnosis is a method of securing that full cooperation and participation.

As for the type of case warranting the use of hypnosis, the answer is simply any case in which you wish full, free, and easy cooperation to the patient's fullest capacity. Such cases range from the mother who is happily anticipating her child to the anxious, tense, hysterically fearful woman who dreads the entire experience and who consequently needs special care and attention.

As for the final question—what specifically can hypnosis do in general and in the individual case? —the comprehensive reply can be offered that it enables a woman to undergo her pregnancy, her delivery, and the postpartum period in that fashion most nearly in accord with her needs and her psychological and physiological capabilities.

It is not in any way a replacement for other obstetrical procedures, but it is a scientific adjunct that serves greatly to reduce the need for some other medical procedures. For example, while in some cases hypnosis may produce complete anesthesia, in others it serves primarily to reduce extensively the amount of medication or chemoanesthesia required. But primarily hypnosis serves to permit the patient to cooperate much more adequately with her physician and to participate more satisfactorily.

Whether the patient is in a light trance, a medium trance, or a deep trance, the following general effects can be achieved.

1. The patient can be taught physical relaxation, adjustment to progressive changes in physical sensations and alterations, and a feeling of comfort and well-being, so desirable in pregnancy.
2. Weight changes, nausea and vomiting, and fear and anxiety states are much more adequately handled.
3. An attitude of cooperation and understanding can be developed, with greater trust and confidence in the physician and his or her competence.
4. The patient can be taught, in accord with her actual capacities to learn, an anesthesia or an analgesia or an amnesia for the discomfort of labor, and thus she can enter the delivery room and participate at a full level of awareness, and do so enjoyably, in the actual experience of childbirth.
5. The patient's behavior during the postpartum period can be directed toward the promotion of sleep, physical comfort, freedom from anxiety, and feelings of physical comfort and well-being.
6. The patient's breast behavior and her attitudes and anxieties in this regard can be handled more adequately.

To summarize, obstetrics is a branch of medicine that centers around a patient-physician relationship extending over a period of many months and involving a physiological process of profound psychological significance and paramount in importance to the

patient. Hypnosis, facilitating as it does a receptiveness and a responsiveness to ideas, is of value in every aspect wherein instruction, advice, counsel, guidance, direction, reassurance, comfort, and all those manifold values of interpersonal relationships are so significant.

# **A Therapeutic Double Bind Utilizing Resistance**

Milton H. Erickson

Unpublished manuscript, 1952.

A 12-year-old boy, 5 feet 10 inches tall and weighing 170 pounds, was brought almost forcibly into the office by his irate and despairing parents. He was described as sullen, rebellious, stubborn, hardheaded, uncooperative, self-willed, lazy, and a chronic bed-wetter. They explained that he had had a wet bed every day of his life and that they had reached the absolute limit of their patience in attempting every known method of curing him other than taking him to a psychiatrist. They now wished to turn the, forbidding task over to the writer, and they would be willing to limit their participation to a simple morning inspection of his bed. They were promptly instructed to relegate this task entirely to the household maid.

Systematic questioning disclosed the following information: The father was an inch taller and 10 pounds heavier than his son. The father's interests were restricted to his business and to philosophical reading. The mother was a demanding woman, interested in drama and club work. She was an inch shorter than her son, but equaled his weight. The boy's interests were negligible. He had no interest in athletics nor in such groups as the Boy Scouts, nor did he seem to have any friends. He enjoyed comic books and "eating." He usually spent the weekends "forgetting" to do either his schoolwork or his assigned chores at home. He was not interested in schoolwork, was content with poor grades, and expressed the hope that he would not have to go to high school. He spent his summers swimming—a skill at which he was most proficient.

As the first measure of therapy, the parents were instructed to relinquish completely all interest in the therapy of their son for a period of at least six months—to make no inquiry or show interest in any way. To this they readily agreed.

## ***TRANCE INDUCTION UTILIZING RESISTANCE***

The boy was then invited into the office. He expressed an unwillingness for an interview and offered the statement that he was "tired enough to go to sleep" and that he would rather go home. Reply was made that he could defeat the purpose of the office interview by deliberately going to sleep and not listening to what the writer had to say. He accepted this as a challenge and proved to be an excellent hypnotic subject to the rather simple testing of suggestion—"Just go to sleep, just don't listen to me; you can sleep restfully and comfortably, even if I do talk"—and similar such suggestions until a deep trance was secured.

He was then instructed that he did not need to bother to listen, but that he could understand everything that was said to him; however, he would nonetheless sleep

restfully and comfortably. Thus it became possible to meet both his personal needs and those of the therapeutic situation. An explanation was then offered that because of his parents it would be necessary to see him repeatedly, but that the writer would try to make it as infrequent as possible.

Therapy was then begun by stating that his parents had demanded that the writer correct the bed-wetting problem, but that the parents were regarded as somewhat unreasonable in this matter. The conclusions were elaborated in the following fashion, while he continued in a deep trance:

Your parents want you to have a permanently dry bed right away, and that is simply unreasonable. In the first place, you have been too darned busy to bother to learn to have a dry bed. You have a great big beautiful frame, with great big powerful muscles to handle it. Your chassis is one that took a lot of energy to build and it is almost as big as your father's and you are only 12 years old. It took an awful lot of energy to build a body as big and strong as that one you've got, and you didn't have any energy left over for such unimportant things as a dry bed or mowing grass or being a teacher's pet. But you will soon be full-grown, bigger than your father, and you haven't got far to go to beat him. Then you'll have all that energy and horsepower you have been putting into growing to spread around to the other things you want, like a permanently dry bed. In fact, you are so close to being finished with building that great big powerful body that you've probably already got extra energy to spare.

But let's get it straight. I don't think it's reasonable to expect you to have a permanently dry bed this month—it's only the first part of January. I don't even expect you to have just one dry bed this week. That's too darned soon. It's not reasonable. But what puzzles me is whether you will have a dry bed next week on Wednesday or on Thursday. I don't know and you don't know and we'll have to wait to find out, and that is a long wait because today is only Monday of this week and you really won't know until Friday of next week whether you will have a dry bed on Wednesday or Thursday of next week.

The double-bind suggestions were variously worded and repeated in the above verbose casual manner, thus to ensure the patient's acceptance of them and to avoid any resistance on his part.

The suggestions were continued: "You can come in next Friday and let me know whether it was Wednesday or Thursday, and you will just have to wait and see."

On the specified Friday he entered the office to report happily that he had had a dry bed on both Wednesday and Thursday.

The discouraging remark was made to him, "Let's be reasonable about this. You just can't expect to have that happen again too soon. It just isn't reasonable to expect you to begin to have a permanently dry bed this month, even if January is a long month."

The patient looked first troubled and then rebellious at these comments, as he settled back resentfully in his chair and looked away from the writer. Comment was offered that he probably felt tired enough to sleep, and a new trance was promptly induced by the original technique.

On this occasion posthypnotic suggestions were carefully given to ensure ready trance development with the minimum of time expenditure. Also, instruction was given for him to have a general amnesia for all office events but a ready understanding and recall of everything necessary in the office. Therapeutic suggestions were continued:

It really was interesting to wait and see whether it was Wednesday or Thursday, but you were sure surprised when Thursday came along with another dry bed. A nice surprise, too, but it can't always happen yet—it's too darned soon.

Of course, I don't know when your next batch of dry beds will come along, this month or early in February, but it's too soon for your permanently dry bed in January, and February is a short month. So, what puzzles me is will your permanently dry bed begin on St. Patrick's Day or on April 1<sup>st</sup>, which is April Fool's Day, or on any day between March 17<sup>th</sup> and April 1<sup>st</sup>. But let's get it straight. Whatever day your permanently dry bed begins is strictly your business. It is none of my business. That just belongs to you as your own private business, and even though I would like to know if it's St. Patrick's Day or April Fool's Day, or any day in between, it is still strictly none of my business and even though I want to know, don't tell me. That's something that just belongs to you.

The above double-bind suggestions were reiterated in various ways to ensure his acceptance of the idea that only the date was in doubt, not the actuality of the permanently dry bed.

Thereafter the patient was seen at irregular intervals. Double-bind suggestions were variously employed to reinforce the general ideas already given and to emphasize the purported rationale of the argument originally presented to the patient. There was no direct seeking of information, nor were direct therapeutic suggestions given. After the first two sessions the interviews tended to be casual, friendly boy-man conversations, rather than doctor-patient interviews. Occasionally a trance state was induced for some "extra sleep just to spread that extra energy around."

The weeks of March and April passed with neither comment nor inquiry, but a carefully worded telephone inquiry of the household maid late in April disclosed that there had been a continuously dry bed for some weeks. Early in May the patient, during a casual conversation, commented that one of his friends was a bed-wetter and that he would like to help this friend, and would the writer be willing to see that boy professionally? This indirect communication was the one and only reference made to the original problem. The patient is still a personal friend, has become a most successful college student, and from time to time refers bed-wetters for therapy.

# **Utilizing the Patient's Own Personality and Ideas: “Doing It His Own Way”**

Milton H. Erickson

Unpublished manuscript, 1954.

A newly married 22-year-old man entered the office with the specific request that he be hypnotized and his practice of irresponsible, reckless driving be corrected. He added, however, that he doubted that he could be hypnotized and that he even had doubts about the need to alter his driving. His reason for the latter belief was his long experience in stunt driving, in which he had learned to wreck cars deliberately and to emerge unscathed. The only current justification for changing his driving behavior was the fact that he always took his wife with him, but even so, his car was in good condition, and his confidence in his ability to meet any driving hazard was unlimited. He denied any other reason for his visit and was explicit in his demand that the writer limit himself to the stated purpose.

## **TRANCE INDUCTION AND POSTHYPNOTIC SUGGESTION**

The patient developed a fairly deep trance, affirmed his need to change his driving behavior, explained that he averaged around 90 miles an hour on the straightaway, and often reached speeds of 70 to 90 miles on mountain roads. When he was asked what he wished the writer to do, he explained that the writer could do nothing at all, that he himself would have to quit speeding, and that he would have to do it his own way, and only in his own way. He explained further that nothing that the writer could do or say would help, but that he did want help in some way from the writer.

Accordingly, he was asked how soon he wished to drive sensibly and in accord with the legal limits. His reply was that it was now early April and that by the first of May he should be driving properly. He was then asked to explain what he thought he would have to do. He merely repeated his previous statement that he would have to quit in his own way.

This statement was seized upon and repeated to him in various wordings as a posthypnotic suggestion, but without altering the meaning. This was done repetitiously in a most insistent, compelling manner. This acceptance of a patient's declaration and turning it back upon him in the form of posthypnotic suggestions is often a most effective therapeutic procedure. It gives the patient a feeling of being committed to his own intentions and wishes, and intensifies his ability to act accordingly, without a feeling that he is being forced to accept proffered help. For a patient as independent-minded as this young man, it was of crucial importance to *utilize his own ideas* rather than attempt to impose those of the therapist.

He was awakened with the suggestion that nothing sufficiently important for conscious recollection had been said. Upon awakening he commented that he probably was too difficult to hypnotize, that his own request for help appeared rather useless, and that obviously it was up to him to do it his own way. Regretfully he took his departure.

Two weeks later he appeared at the office to report that he was "still driving like a fool" and taking his wife with him on all his trips. He added that, somehow, he would have to quit in his own way. Again he left reluctantly.

Two weeks later he reported again, this time jubilant, declaring that he had handled things in his own way. His story was that the previous week, on his day off, he had overhauled his car completely with the aid of a friend. When this task was finished, he announced to his wife that he was taking a ride over a certain mountain road she had frequently asked him to travel. However, he refused to take her or his friend. Ten miles down the road he came to a long stretch of reasonably straight road. Immediately he decided to have a final fling at speeding and rejoiced at such an opportunity to do it without making his wife frightened. He reached the speed of 90 miles an hour, but before he came to the end of the open stretch, he discovered that he was losing control of the car. Before he could formulate any ideas, he realized that he would have to abandon the car. He succeeded in leaping out of it, suffering only minor bruises in so doing, just before it hurtled down the mountainside.

The long walk back home was spent in repetitious thinking of, "You've done it your own way." He explained what he had done to his wife, and later purchased another car that he began driving safely and within legal limits. Three months later he dropped into the office casually to comment that he was still driving safely. To this he added it had been rather expensive for him to do it in his own way and that he had merely wasted his time and money seeing the writer, except that possibly the writer had given him some psychological impetus.

# **Introduction to the Study and Application of Hypnosis for Pain Control**

Milton H. Erickson

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## **INTRODUCTION**

Hypnosis is essentially a communication of ideas and understandings to a patient in such a fashion that he will be most receptive to the presented ideas and thereby motivated to explore his own body potentials for the control of his psychological and physiological responses and behavior. The average person is unaware of the extent of his capacities of accomplishment which have been learned through the experiential conditionings of this body behavior through his life experiences. To the average person in his thinking, pain is an immediate subjective experience, all-encompassing of his attention, distressing, and to the best of his belief and understanding, an experience uncontrollable by the person himself. Yet as a result of experiential events of his past life, there has been built up within his body—although all unrecognized—certain psychological, physiological, and neurological learnings, associations, and conditionings that render it possible for pain to be controlled and even abolished. One need only think of extremely crucial situations of tension and anxiety to realize that the severest of pain vanishes when the focusing of the sufferer's awareness is compelled by other stimuli of a more immediate, intense, or life-threatening nature. From common experience one can think of a mother suffering extremely severe pain and all-absorbed in her pain experience. Yet she forgets it without effort or intention when she sees her infant dangerously threatened or seriously hurt. One can think of men seriously wounded in combat who do not discover their injury until later.

There are numerous such comparable examples common to medical experience. Such abolition of pain occurs in daily life in situations where pain is taken out of awareness by more compelling stimuli of another character. The simplest example of all is the toothache forgotten on the way to the dentist's office, or the headache lost in the suspenseful drama portrayed at the cinema. By such experiences as these in the course of a lifetime, be they major or minor, the body learns a wealth of unconscious psychological, emotional, neurological, and physiological associations and conditionings. These unconscious learnings, repeatedly reinforced by additional life experiences, constitute the source of the potentials that can be employed through hypnosis to control pain intentionally without resorting to drugs.

## **CONSIDERATIONS CONCERNING PAIN**

While pain is a subjective experience with certain objective manifestations and accompaniments, it is not necessarily a conscious experience only. It occurs without conscious awareness in states of sleep, in narcosis, and even under certain types of chemoanesthesia as evidenced by objective accompaniments and as has been demonstrated by experimental hypnotic exploration of past experiences of patients. But because pain is primarily a conscious, subjective experience, with all manner of unpleasant, threatening, even vitally dangerous emotional and psychological significances and meanings, an approach to the problem it represents can be made frequently by hypnosis—sometimes easily, sometimes with great difficulty, and the extent of the pain is not necessarily a factor. In order to make use of hypnosis to deal with pain, one needs to look upon pain in a most analytical fashion. Pain is not a simple, uncomplicated noxious stimulus. It has certain temporal, emotional, psychological, and somatic significance. It is a compelling motivating force in life's experience. It is a basic reason for seeking medical aid.

Pain is a complex, a construct, composed of past remembered pain, of present pain experience, and of anticipated pain of the future. Thus, immediate pain is augmented by past pain and is enhanced by the future possibilities of pain. The immediate stimuli are only a central third of the entire experience. Nothing so much intensifies pain as the fear that it will be present on the morrow. It is likewise increased by the realization that the same or similar pain was experienced in the past, and this and the immediate pain render the future even more threatening. Conversely, the realization that the present pain is a single event which will come definitely to a pleasant ending serves greatly to diminish pain. Because pain is a complex, a construct, it is more readily vulnerable to hypnosis as a modality of dealing successfully with it than it would be were it simply an experience of the present.

Pain as an experience is also rendered more susceptible to hypnosis because it varies in its nature and intensity, and hence, through life experiences, it acquires secondary meanings resulting in varying interpretations of the pain. Thus the patient may regard his pain in temporal terms, such as transient, recurrent, persistent, acute, or chronic. These special qualities each offer varying possibilities of hypnotic approaches.

Pain also has certain emotional attributes. It may be irritating, all-compelling of attention, troublesome, incapacitating, threatening, intractable, or vitally dangerous. Each of these aspects leads to certain psychological frames of mind with varying ideas and associations, each offering special opportunities for hypnotic intervention.

One must also bear in mind certain other very special considerations. Long continued pain in an area of the body may result in a habit of interpreting all sensations in that area as pain in themselves. The original pain may be long since gone, but the recurrence of that pain experience has been conducive to a habit formation that may in turn lead to actual somatic disorders painful in character.

Of a somewhat similar character are iatrogenic disorders and disease arising from a physician's poorly concealed concern and distress over his patient. Iatrogenic illness has a most tremendous significance because in emphasizing that if there can be psychosomatic disease of iatrogenic origin, it should not be overlooked that, conversely, iatrogenic health is fully as possible and of far greater importance to the patient. And since iatrogenic pain can be produced by fear, tensions, and anxiety, so can freedom from it be produced by the iatrogenic health that may be suggested hypnotically.

Pain as a protective somatic mechanism should not be disregarded as such. It motivates the patient to protect the painful areas, to avoid noxious stimuli, and to seek aid. But because of the subjective character of the pain, there develop psychological and emotional reactions to the pain experience that eventually result in psychosomatic disturbances from unduly prolonged protective mechanisms. These psychological and emotional reactions are amenable to modification and treatment through hypnosis in such psychosomatic disturbances.

To understand pain further, one must think of it as neuro-psycho-physiological complex characterized by various understandings of tremendous significance to the sufferer. One need only to ask the patient to describe his pain A hear it variously described as dull, heavy, dragging, sharp, cutting, twisting, burning, nagging, stabbing, lancinating, biting, cold, hard, grinding, throbbing, gnawing, and a wealth of other such adjectival terms.

These various descriptive interpretations of the pain experience are of marked importance in the hypnotic approach to the patient. The patient who interprets his subjective pain experience in terms of various qualities of differing sensations is thereby offering a multitude of opportunities to the hypnotherapist to deal with the pain. To consider a total approach is possible, but more feasible is the utilization of hypnosis in relation first to minor aspects of the total pain complex and then to increasingly more severely distressing qualities. Thus, minor successes will lay a foundation for major successes in relation to the more distressing attributes of the neuro-psycho-physiological complex of pain, and the understanding and cooperation of the patient for hypnotic intervention are more readily elicited. Additionally, any hypnotic alteration of any single interpretive quality of the pain sensation serves to effect an alteration of the total pain complex.

Another important consideration in the matter of the understanding of the pain complex is the recognition of the experiential significances of various attributes or qualities of subjective sensation, and their differing relationships in such matters as remembered pain, past pain, immediate pain, enduring pain, transient pain, recurrent pain, enduring persistent pain, intractable pain, unbearable pain, threatening pain, etc. In applying these considerations to various of the subjective elements of the pain complex, hypnotic intervention is greatly accelerated. Such analysis offers greater opportunity for hypnotic intervention at a more understanding and comprehensive level. It becomes easier to communicate ideas and understandings through hypnosis and to elicit the receptiveness and responsiveness so vital in securing good response to hypnotic intervention. It is also important to recognize adequately the unrecognized force of the human emotional need to demand the immediate abolition of pain, both by the patient himself and by those in

attendance on him. In hypnotic intervention there is a need to be aware of this and not to allow it to dominate a scientific hypnotic approach to the problem of pain.

## **HYPNOTIC PROCEDURES IN PAIN CONTROL**

The hypnotic procedures in handling pain are numerous in character. The first of these, most commonly practiced but frequently not genuinely applicable is the use of *direct hypnotic suggestion for total abolition of pain*. With a certain limited number of patients, this is a most effective procedure. But too often it fails, serving to discourage the patient and to prevent further use of hypnosis in his treatment. Also, its effects, while they may be good, are sometimes too limited in duration, and this may limit the effectiveness of the *permissive indirect hypnotic abolition of pain*. This is often much more effective, and although essentially similar in character to direct suggestion, it is worded and offered in a fashion much more conducive of patient receptiveness and responsiveness.

A third procedure for hypnotic control of pain is the utilization of *amnesia*. In everyday life we see the forgetting of pain whenever more threatening or absorbing experiences secure the attention of the sufferer. An example is the instance already cited of the mother enduring extreme pain, seeing her infant seriously injured, and forgetting her own pain in the anxious fears about her child. Then of quite opposite psychological character is the forgetting of painful arthritis, headache, or toothache while watching an all-absorbing suspenseful drama on a cinema screen.

But amnesia in relationship to pain can be applied hypnotically in a great variety of ways. Thus one may employ partial, selective, or complete amnesias in relationship to selected subjective qualities and attributes of sensation in the pain complex as described by the patient as well as to the total pain experience.

A fourth hypnotic procedure is the employment of *hypnotic analgesia*, which may be partial, complete, or selective. Thus, one may add to the patient's pain experience a certain feeling of numbness without a loss of tactile or pressure sensations. The entire pain experience then becomes modified and different and gives the patient a sense of relief and satisfaction, even if the analgesia is not complete. The sensory modifications introduced into the patient's subjective experience by such sensations as numbness, an increase of warmth and heaviness, relaxation, etc., serve to intensify the hypnotic analgesia to an increasingly more complete degree.

*Hypnotic anesthesia* is a fifth method in treating pain. This is often difficult and may sometimes be accomplished directly, but is more often best accomplished indirectly by the building of psychological and emotional situations that are contradictory to the experience of the pain and which serve to establish an anesthetic reaction to be continued by posthypnotic suggestion.

A sixth hypnotic procedure useful in handling pain concerns the matter of suggestion to effect the *hypnotic replacement or substitution of sensations*. For example, one cancer patient suffering intolerable, intractable pain responded most remarkably to the

suggestion of an intolerable, incredibly annoying itch on the sole of her foot. Her body weakness occasioned by the carcinomatosis and hence inability to scratch the itch rendered this psychogenic pruritis all-absorbing of her attention. Then hypnotically, there were systematically induced feelings of warmth, of coolness, of heaviness and of numbness for various parts of her body where she suffered pain. And the final measure was the suggestion of an endurable but highly unpleasant and annoying minor burning-itching sensation at the site of her mastectomy. This procedure of replacement substitution sufficed for the last six months of the patient's life. The itch of the sole of her foot gradually disappeared, but the annoying burning-itching at the site of her mastectomy persisted.

*Hypnotic displacement of pain* is a seventh procedure. This is the employment of a suggested displacement of the pain from one area of the body to another. This can be well illustrated by the instance of a man dying from prostatic metastatic carcinomatosis and suffering with intractable pain, particularly abdominal pain, in both the states of drug narcosis and deep hypnosis. He was medically trained and understood the concept of referred and displaced pain. In the hypnotic trance he readily accepted the idea that, while the intractable pain in his abdomen was the pain that would actually destroy him, he could readily understand that equal pain in his left hand could be entirely endurable, since in that location it would not have its threatening significances. He accepted the idea of referral of his abdominal pain to his left hand, and thus remained free of body pain and became accustomed to the severe pain in his left hand, which he projected carefully. This hand pain did not interfere in any way with his full contact with his family during the remaining three months of his life. It was disclosed that the displaced pain to the left hand often gradually diminished, but the pain would become increased upon inadvertent inquiry.

This possibility of displacement of pain also permits a displacement of various attributes of the pain that cannot otherwise be controlled. By this measure these otherwise uncontrollable attributes become greatly diminished. Thus the total complex of pain becomes greatly modified and made more amenable to hypnotic intervention.

*Hypnotic dissociation* can be employed for pain control, and the usual, most effective methods are those of *time and body disorientation*. The patient with pain intractable to both drugs and hypnosis can be hypnotically reoriented in time to the earlier stages of his illness, when the pain was of minor consideration. And the disorientation of that time characteristic of the pain can be allowed to remain as a posthypnotic continuation through the waking state. Thus the patient still has his intractable pain, but it has been rendered into a minor consideration, as it had been in its original stages.

One may sometimes successfully reorient the patient with intractable pain to a previous time predating his illness and, by posthypnotic suggestion, effect a restoring of the normal sensations existing before his illness. However, although intractable pain often prevents this as a total result, pleasant feelings predating his illness may be projected into the present to nullify some of the subjective qualities of his pain complex. Sometimes this effects a major reduction in pain.

In the matter of *body disorientation* the patient is hypnotically dissociated and induced to experience himself as apart from his body. Thus one woman with the onset of unendurable pain, in response to posthypnotic suggestions, would develop a trance state and experience herself as being in another room while her suffering body remained in her sickbed. This patient explained to the author when he made a bedside call, "Just before you arrived, I developed another horrible attack of pain. So I went into a trance, got into my wheelchair, came out into the living room to watch a television program, and left my suffering body in the bedroom." And she pleasantly and happily told about the fantasized television program she was watching. Another such patient remarked to her surgeon, "You know very well, Doctor, that I always faint when you start changing my dressings because I can't endure the pain, so if you don't mind, I will go into a hypnotic trance and take my head and feet and go into the solarium and leave my body here for you to work on." The patient further explained, "I took a position in the solarium where I could see him [the surgeon] bending over my body, but I could not see what he was doing. Then I looked out the window, and when I looked back he was gone, so I took my head and feet and went back and joined my body and felt very comfortable." This particular patient had been trained in hypnosis by the author many years previously, had subsequently learned autohypnosis, and thereafter induced her own autohypnotic trance by the phrase, "You know very well, Doctor." This was a phrase that she could employ verbally or mentally at any time and immediately go into a trance for the psychological-emotional experience of being elsewhere, away from her painful body, there to enjoy herself and remain until it was safe to return to her body. In this trance state, which she protected very well from the awareness of others, she would visit with her relatives, but experience them as with her in this new setting while not betraying that personal orientation.

A ninth hypnotic procedure in controlling body pain, which is very similar to replacement or substitution of sensations, is *hypnotic reinterpretation of pain experience*. By this is meant reinterpreting for the patient in hypnosis of a dragging, gnawing, heavy pain as a feeling of weakness, of profound inertia, and then as relaxation with the warmth and comfort that accompanies muscular relaxation. Stabbing, lancinating, and biting pains may sometimes be reinterpreted as sudden startle reactions, disturbing in character but momentary and not painful. Throbbing, nagging, grinding pain has been successfully reinterpreted as the unpleasant but not distressing experience of the rolling sensations of a boat during the storm, or even as the throbbing that one so often experiences from a minor cut on the fingertip and of a no greater distressing character. Full awareness of how the patient experiences pain is requisite for an adequate hypnotic reinterpretation of his pain sensation.

*Hypnotic time distortion*, first described by Cooper and then later developed by Cooper and Erickson (1959) is often a most useful hypnotic measure in pain control. An excellent example is that of the patient with intractable attacks of lancinating pain which occurred approximately every 20 to 30 minutes, night and day, and which lasted from five to 10 minutes. Between the attacks the patient's frame of mind was essentially one of fearful dread of the next attack. By employing hypnosis and teaching him time distortion, it was possible to employ, as is usually the case in every pain patient, a combination of several

of the measures being described here. In the trance state the patient was taught to develop an amnesia for all past attacks of pain. He was then taught time distortion so that he could experience the five- to 10-minute pain episodes in 10 to 20 seconds. He was given posthypnotic suggestions to the effect that each attack would come as a complete surprise to him, that when the attack occurred, he would develop a trance state of 10 to 20 seconds' duration, experience all of the pain attack, and then come out of the trance with no awareness that he had been in a trance or that he had experienced pain. Thus the patient, in talking to his family, would suddenly and obviously go into the trance state with a scream of pain, and perhaps 10 seconds later come out of the trance state, look confused for a moment, and then continue his interrupted sentence.

An eleventh hypnotic procedure is that of offering *hypnotic suggestions effecting a diminution of pain*, but not a removal, when it has become apparent that the patient is not going to be fully responsive. This diminution is usually brought about best by suggesting to the hypnotized patient that his pain is going to diminish imperceptibly hour after hour without his awareness that it is diminished until perhaps several days have passed. He will then become aware of a definite diminution either of all pain or of special pain qualities. By suggesting that the diminution occur imperceptibly the patient cannot refuse the suggestion. His state of emotional hopefulness, despite his emotional despair, leads him to anticipate that in a few days there may be some diminution, particularly that there may be even a marked diminution of certain of the special attributes of his pain experience. This in itself serves as an autosuggestion to the patient. In certain instances, however, he is told that the diminution will be to a very minor degree. One can emphasize this by utilizing the ploy that a one percent diminution of his pain would not be noticeable, nor would a 2 percent, nor a 3 percent, nor a 4 percent, nor a 5 percent diminution, but that such an amount would nevertheless be a diminution. One can continue the ploy by stating that a 5 percent diminution the first day and an additional 2 percent the next day still would not be perceptible. And if on the third day there occurred a 3 percent diminution, this, too, would be imperceptible. But it would total a 10 percent diminution of the original pain. This same series of suggestions can be continued to a reduction of pain to 80 percent of its original intensity, then to 70 percent, 50 percent, 40 percent, and sometimes even down to 10 percent. In this way the patient may be led progressively into an ever-greater control of his pain.

However, in all hypnotic procedures for the control of pain one bears in mind the greater feasibility and acceptability to the patient of indirect as compared with direct hypnotic suggestions, and the need to approach the problem by indirect and permissive measures and by the employment of a combination of various of the methodological procedures described above.

## SUMMARY

Pain is a subjective experience, and it is perhaps the most significant factor in causing people to seek medical aid. Treatment of pain as usually viewed by both physician and patient is primarily a matter of elimination or abolition of the sensation. Yet pain in itself may be serving certain useful purposes to the individual. It constitutes a warning, a

persistent warning of the need for help. It brings about physical restriction of activity, thus frequently benefiting the sufferer. It instigates physiological changes of a healing character in the body. Hence, pain is not just an undesirable sensation to be abolished, but rather an experience to be so handled that the sufferer benefits. This may be done in a variety of ways, but there is a tendency to overlook the wealth of psycho-neuro-physiological significances pain has for the patient. Pain is a complex, a construct composed of a great diversity of subjective interpretative and experiential values for the patient. Pain, during life's experience, serves to establish body leanings, associations, and conditionings that constitute a source of body potentials permitting the use of hypnosis for the study and control of pain. Hypnotic procedures, singly or in combination, for major or minor effects in the control of pain described for their application are:

- Direct Hypnotic Suggestion for Total Abolition of Pain
- Permissive Indirect Hypnotic Abolition of Pain
- Amnesia
- Hypnotic Analgesia
- Hypnotic Anesthesia
- Hypnotic Replacement or Substitution of Sensations
- Hypnotic Displacement of Pain
- Hypnotic Dissociation
- Reinterpretation of Pain Experience
- Hypnotic Suggestions Effecting a Diminution of Pain.

# **Therapy of a Psychosomatic Headache**

Milton H. Erickson

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## **INTRODUCTION**

Too often, trite observations are made to disparage experimental findings. For example, a professor of internal medicine, after reading a psychiatric report upon a single patient, remarked that one case proves nothing. Reply was made that a single instance of an untried medication administered to only one patient with lethal results proved much more than could possibly be desired. The nature and character of a single finding can often be more informative and valuable than a voluminous aggregate of data whose meaning is dependent upon statistical manipulation. This is particularly true in the field of human personality where, although each individual is unique in all of his experiential life, single instances often illustrate clearly and vividly aspects and facets of general configurations, trends, and patterns. Rather than proof of specific ideas, an illustration or portrayal of possibilities is often the proper goal of experimental work.

In a comparable fashion another type of assumption places limitations unwarrantedly upon experimental findings. For example, many psychotherapists regard it as almost axiomatic that therapy is contingent upon making the unconscious conscious. When thought is given to the unmeasurable role that the unconscious plays in the total experiential life of a person from infancy on, whether awake or asleep, there can be little expectation of doing more than making some small parts of it conscious. Furthermore, the unconscious as such, not as transformed into the conscious, constitutes an essential part of psychological functioning. Hence, it seems more reasonable to assume that a legitimate goal in therapy lies in promoting an integrated functioning, both singly and together, and in complementary and supplementary relationships, as occurs daily in well-adjusted living in contrast to the inadequate, disordered, and contradictory manifestations in neurotic behavior.

## **THE PATIENT**

To illustrate the above considerations, the following case history is reported.

A professionally trained female employee of a state hospital was referred to the writer for therapy after extensive medical study. Her complaint was one of severe headaches, for which numerous medical studies had found no physical basis, and severe personality disturbances manifested in quarrelsomeness and uncooperativeness. At the time she was seen, she had been given notice of her discharge to take effect either immediately or, if she sought therapy from the writer, in six weeks' time.

Under these adverse circumstances, the patient sought out the writer, explained the situation bitterly, and declared that she was confronted with "the choice of wiring home for transportation money or being messed around with by a damn hypnotist." (The fact that the writer was wholly innocent of any part of her situation was totally disregarded by her.) She added ungraciously, "So here I am. What do you want? Go ahead."

An effort was made to secure her history, but she was uncommunicative and remained so throughout the course of therapy. The only material obtained was the following fragments:

For the past four years, beginning when she parted ties with her childhood home, she had been suffering from intense, unlocalized headaches. These sometimes occurred twice a week and were accompanied by nausea, vomiting, and physical incapacitation from two to four hours' duration. Also they were always associated with intense, inexplicable emotional disturbances characterized by extreme quarrelsomeness, bitterness, and violent verbal attacks on everyone about her. Usually these emotional disturbances presaged the headaches, and upon recovery from that symptom she would remain seclusive, subdued, and somewhat socially adjusted for a day or two until the next attack.

Every attempt to secure more adequate information from her failed. She resented any questions or even casual conversation about herself. Also, she was embittered by the fact that she had been given notice of her impending discharge and only then had been referred for psychotherapy, "as if to make up for firing me."

This behavior of hers had caused her to lose one position after another as well as all of her friends and even the possibility of making new friends. Hence, she felt most lonely and wretched about her situation.

### **THERAPEUTIC PROCEDURE**

She was unfriendly and uncooperative at the first interview and so was told only that hypnosis might possibly be of value but that it would first be necessary to see her during one of her headache seizures. A few days later word was received that she was confined to bed with a sudden headache. She was found to be pale and drawn in appearance. She flinched whenever she moved her head or body, and was dazed, slow, and unresponsive in her general behavior.

A few hours later she was found recovered from her headache, spasmodic and excitable in her movements. She spoke in a high-pitched tone of voice, scolded and excoriated everybody, and seemed to take a sadistic delight in making cutting, painful remarks. She was most unwilling to discuss her condition, denounced the hypnotist, and demanded to be left alone. The next day her characteristic depressive reaction set in, and she was silent, seclusive, but would occasionally make self-condemnatory remarks.

A few days later, in a pleasant, affable mood, she approached the hypnotist spontaneously for hypnotic therapy. However, she dismissed all attempts at questioning, declaring politely but emphatically that her only problem was her headaches and that all therapy should be directed entirely to that one symptom. If this were done, she explained, her other difficulties would vanish, since they all derived from the headaches and her reactions to them.

Finally it became necessary to accept her on her own terms, with the mental reservation to resort to experimental measures.

Repeated attempts at hypnosis produced only light trances, but these were capitalized upon to secure her cooperation as a demonstration subject for a teaching clinic. By this measure it was possible to induce a profound trance in which she was given adequate training and instruction to permit the induction of profound trances in the future.

During the course of the next four weeks a total of 15 profound trances were induced. These trances were utilized to give repeatedly, emphatically, and insistently the following suggestions, until, more or less under duress, she accepted them and agreed to obey them:

1. Should a headache develop unexpectedly, or should she develop the irritability that experience had taught her presaged a headache, she was to go to bed at once and sleep soundly for at least half an hour. This, she was told repeatedly, would serve to abort either of the manifestations.
2. Following this half-hour of sleep she was then to spend at least an hour, preferably more, in mentally reviling, denouncing, condemning, and criticizing anybody and everybody she wished, giving free rein to her fantasies as she did so. This was to be done at first in obedience to the instructions given her, but sooner or later she was to carry out these instructions solely because of her own sadistic desires.
3. She was further told that, after she had secured adequate emotional satisfaction from these fantasized aggressions, she was to sleep soundly and restfully another half-hour. Then she might awaken and go about her work freely and comfortably with no need to "hate herself." This would be possible, it was explained, because obedience to the foregoing instructions would result in a hypnotic sleep that would persist until she finally awakened to go about her work in a rested, comfortable fashion. Of all this she would know only that she had gone to bed, fallen asleep, and had finally awakened feeling comfortable and rested in every way.

During the first three weeks the subject obeyed these instructions a half-dozen times by excusing herself from her work, returning to her room, and falling asleep. She would remain in this sleep from two to three hours and then rouse up and seem refreshed and comfortable. Several check-ups during periods when she was sleeping disclosed her to be in a trance state, but not in good rapport with the writer.

During the fourth week a new procedure was introduced. This was also in the form of a posthypnotic suggestion to the effect that on a certain day, at a specified hour, she was to develop a severe headache. As this developed, she was to fight against it and to persist in working until she could no longer stand it. Then she was to go hastily to her room and obey the first series of suggestions.

These instructions were carried out fully. At 1 P.M. on that day, three hours after her headache had begun, she returned to work, socially adjusted in a satisfactory fashion. Her only complaint was a comment on her ravenous hunger, since she had missed her lunch. On previous occasions such an event had often been seized upon to justify her irritability. Thus, she had been given experimental proof of the effectiveness of hypnotic suggestion and of the possibility of a good therapeutic response.

About a week later, in another trance state, she was given posthypnotic instructions to develop at a given time the emotional disturbance that often presaged a headache. As this developed, she was to resist it, to control her tongue except for a few disagreeable remarks, and finally to develop an overwhelming desire to return to her room, to which she would finally yield. There she was to follow the routine suggested previously.

All instructions were obeyed, and after nearly three hours of sleep she returned to her work in a pleasant frame of mind.

These two special trance sessions were purposely included in the course of therapeutic or instructive trances as a measure of forcing the subject to act responsively upon the earlier trance instructions. Subsequent trance states in which the suggestions cited above were given were augmented in force by reference to the experiential values of the posthypnotically induced headache and emotional disturbances and the benefits of following instructions.

In addition, every effort was made to impress upon her the future effectiveness of the general procedure and the desirability of yielding at once to the posthypnotic suggestions.

The last trance session was devoted to a general review of the instructions given to her, the posthypnotic disturbances suggested to her, her learned ability to meet the whole general problem, and the future applicability of the procedure in the event of further headaches and emotional disturbances.

Repeatedly during trance sessions efforts were made to learn the content of her thinking during the periods of mental aggression, but she proved uncommunicative. It was, she declared, "too terrible" to relate.

Questioning in the waking state disclosed her to have a complete amnesia for all except the superficial facts that she had been hypnotized repeatedly and that there had been a number of occasions on which she felt a headache developing, and that this had been warded off by a compulsive need to sleep. Every effort to secure additional data from her

failed. She did attribute her change in behavior to the hypnosis, but was not curious about what had been done.

## **THE RESULTS**

After leaving the hospital, she was not seen for three months. At the next meeting with her she related that she had only two threatened headaches, but had promptly warded them off with a little sleep, and that they had been the happiest three months of her life.

Immediately she began to thank the writer effusively, declaring that her freedom from headaches was unquestionably the result of his hypnotic work. Efforts to secure her reasons for this conclusion elicited only more expressions of certainty, conviction, and gratitude, but with no evidence of any true understanding or knowledge of what had occurred therapeutically.

She was interrupted in her thanks and the suggestion was given insistently that adequate expression of gratitude could come only from continued satisfactory adjustment in the future. With this remark the interview was closed.

More than 15 years have elapsed, and the therapeutic outcome has been good. She secured a position in another part of the country and has been promoted progressively until she is now a department head. Each Christmas a greeting card expressing briefly her gratitude is received. Occasionally a business letter is received, asking for references concerning somebody the writer knows, or recommending to him somebody needing therapy or a job placement.

One additional fact is that acquaintance has been made with several persons who have worked for her. They have been found to entertain the highest regard, personal liking, and respect for her and to be most enthusiastic about her charming personality.

In response to a specific letter of inquiry she stated that she had on the average three headaches a year, but that these responded readily to brief rest. She expressed the belief that these headaches were "different" from her former headaches, and she attributed them to reading without her glasses.

She is now in her early forties, unmarried, wholly content, absorbed in her work and the creature comforts of her tastefully decorated apartment. She was described by a competent psychiatrist who knew her well, but nothing of the above history, as "one of those delightful people you like to number among your friends. She looks upon men as charming companions but nothing more. She's most enthusiastic about her work and inspires everyone who works under her. After the day is over she likes her home, or the theater, or concerts, or has some of us in for a social evening. She is content and happy. You must have enjoyed knowing her."

## **COMMENT**

A definitive discussion, even of a single aspect of this case history, is impossible since it is restricted entirely to overt symptoms. The only things known are what the therapist tried to do, but not the experiential significances thereof to the patient, and the subsequent, definitely successful therapeutic results.

At most it can be said that an experimental procedure was employed which in some manner permitted the patient's unconscious, distorted and disorganized in its functioning, to achieve a satisfactory role in the total experiential life of the patient, and to do so without becoming a part of the conscious. That such an outcome was possible with one patient suggests strongly that a comparable procedure could be adapted satisfactorily to the therapeutic needs of other patients.

# **Migraine Headache in a Resistant Patient**

Milton H. Erickson

Unpublished manuscript, 1936.

An admonition from William Alanson White, M.D., then Superintendent of St. Elizabeth's Hospital, was given to this writer early in his psychiatric career, and a year or so later he was again given the same admonition by Adolf Meyer, M.D. Both strongly advised the writer never to refuse to consult with a patient. A single interview graciously granted during which the patient's story was listened to attentively, while not especially remunerative, had often permitted them to encounter many unusual instances of psychopathology and to achieve, in many cases, astonishingly effective results. These results had sometimes proved to be far better than the doctors had considered possible at the time of the interview, even if long-term therapy could have been instituted. They likened such instances to the processes of behavior wherein "love at first sight" has drastically and positively altered the lives of various individuals. One such historical example was the schoolteacher who thought it wrong for an adult man making his living as a tailor (Andrew Johnson) to be so uneducated. The events that unfolded began with teaching and led to love, marriage, a law degree, a judgeship, and eventually the presidency of the United States.

Adolf Meyer particularly stressed the utility of hypnosis in eliciting the potentialities of these transient patients and urged this writer to see such patients for both the educational values of the experience and the possibility of effecting unexpected results. Throughout the passing years the writer has conducted many "one-shot" interviews and sometimes as much as 20 years later has received an appreciative letter or a personal visit confirming the therapeutic impact of the brief encounter.

One such case is as follows: In 1936 the author lectured to his first class of medical students at the Wayne State University College of Medicine. During one of the last two lectures of the year the subject of hypnosis was discussed. One of the students hostilely and aggressively interrupted the lecture to denounce hypnosis as a hoax and challenged the author to hypnotize him. He proceeded to berate the author; one of his classmates who was well known to the author rushed up and quietly explained that no notice should be given to the student's misconduct. He was a known sufferer of migraine headaches, which developed unexpectedly; the headaches were always preceded by an outburst, as had just occurred; this behavior was merely the prodromes of a migraine headache, which would last for one to three days; and finally, such outbursts would occur in the most unexpected of situations—on the street, in the classroom, at parties, football games, etc. After the outburst the student would slowly become flushed of face and neck, followed shortly by projectile vomiting, and culminating in a violent, incapacitating headache of perhaps several days' duration. He had been examined by many competent physicians and had almost been refused admission to the medical school. So far no medication or

treatment had been found for his malady. (Several of the rest of the class members confirmed this account of the student's history.)

Within 10 minutes the student apologized for his conduct, declared that he was in the process of developing a migraine headache for which nothing could be done, in that about 15 or 20 minutes he would begin vomiting; after that happened, could he and a friend be excused so that he could be taken home. He also explained that his emotional outburst was a part of the aura. He was still getting angrier within himself, but he wanted to stay at the lecture as long as possible, since past experience had taught him how to judge his condition. Consent was given, but a challenge was issued that he might try hypnosis, since nothing else had worked. He bristled at this suggestion, but suddenly said, "Well, I've got nothing to lose but my breakfast, so go ahead with your silly hypnosis."

He was asked to take a seat in front of the class, facing the author and with his back to the audience. Slowly it was explained that he was to rotate his chair (it was a four-legged chair) bit by bit until he had made a complete turn of 360 degrees. His hostile manner and attitude suggested the inadvisability of attempting any routine traditional technique. Additionally, such a technique as moving his chair in a circle as he sat in it would be utterly incomprehensible to him as well as a difficult task. Yet, by so doing, he would be caught in the situation of actually participating with the author in a joint undertaking. Thus, he would validate by his own actions the idea that he was going into a trance.

As he gradually rotated his chair, the author explained to the class that the subject would do this task slowly, that each little movement would become slower and more difficult, that there was no hurry, no rush, that the subject could take his time and ought to, that each time he moved his chair a little, he would feel increasing fatigue and sleepiness, that the chair would seem to get more and more difficult to move, that his efforts would increasingly become less and less effective, and that shortly his eyes would close, he would take a deep breath, he would give up trying to move the chair, and simply relax by going into a deep trance.

All of the above was said as if it were no more than an explanation to the rest of the class. Thus, the subject would hear these suggestions as an explanation to the class but not as commands personally addressed to him. He would develop no counter-set to the suggestions and would thus tend to respond to them more readily, since he was already cooperating by slowly rotating his chair. Another important factor was the impending threat of a disabling migraine headache and the undoubtedly strong desire to escape from it in some way, even if that "way" appeared silly to him. Indeed, the entire situation favored the development of a trance state—the long history of migraine, the prodromes of hostility, aggressiveness, and belligerency, his own feeling of helplessness, his unwillingness to experience the projectile vomiting, and his dread of the utterly painful incapacitation that awaited him.

By the time he was facing the audience, he had developed a deep trance. He was peremptorily told that the author was now in charge of him and that all instructions were

to be carried out. To this he nodded his head affirmatively. He was instructed to awaken, to speak derogatorily about hypnosis and the author, and to declare that such nonsense as hypnosis made him sick to his stomach. He should then *try* to prove that statement by going to the window, opening it, and *trying* to vomit projectilely, *but that he would fail completely.*

He was aroused, appearing surprised to find himself facing his classmates, made several unpleasant remarks as instructed, and then opened a window overlooking a vacant lot. He apparently did his best to vomit but failed, stating, "By this time I should have lost the lining of my stomach, but I'm beginning to feel better. I always vomit when I am about to have a migraine and I sure had all the warning signs this morning. But if I can't vomit, perhaps I won't have it [the migraine]."

This utterance was seized upon by the author to expand the idea that maladies, whether psychogenic or organic, followed definite patterns of some sort, particularly in the field of psychogenic disorders; that a disruption of this pattern could be a most therapeutic measure; and that it often mattered little how small the disruption was, if introduced early enough. After some discussion of this for the class (and as disguised suggestions to him) he was challengingly asked if he thought there was such a thing as hypnosis, and did he dare to volunteer to be a subject.

His reply was most informative: "I just told you it was silly nonsense, but I'm beginning to believe in it and I almost feel that you could hypnotize me. But what I don't understand is that something has happened to my headache. I knew this morning when I woke up that I was going to have one, and when I came into this classroom I was in my usual, helpless, ugly mood. But now I feel fine."

The answer given was, "It's all very simple, and as I explain you will go into a trance, a deep trance, remember everything, and then awaken, knowing that you never need to have another migraine headache. So rouse up!" He awakened from the trance that developed as the above remarks were made and had a total recovery of all events.

# Hypnosis in Painful Terminal Illness

Milton H. Erickson

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The use of psychological measures in the treatment of human illness, whether organic or psychological or a combination of both, is as old as human history. In fact, the psychological aspect of medicine constitutes the art of medicine and transforms the physician from a skillful mechanic or technician into a needed human source of faith, hope, assistance, and, most importantly, of motivation for the patient toward physical and mental health and well-being.

With this integral relationship between psychology and medicine it is not surprising that hypnosis as a psychological measure should be considered, seriously and rightly, in the treatment of painful terminal illness, particularly the last stages of malignant disease. However, as a preliminary statement, it must be emphasized that hypnosis is not an absolute answer and that it cannot replace other medical procedures. Rather, it is no more than one of the adjuvants or synergistic measures that can be employed to meet the patient's needs.

To present this topic to you, it might be well first to define both hypnosis and the rationale of its use. Essentially, hypnosis is a state of intensified attention and receptiveness and an increased responsiveness to an idea or to a set of ideas. There is nothing magical or mystical about it; it is attentiveness to, absorption in, and responsiveness to an idea or a whole group of ideas. We see this sort of thing repeatedly in everyday living where hypnosis is not involved—the automobile driver who forgets everything he should keep in mind because he is fascinated by the white line in the middle of the highway or by the scenery along the roadside, or the man unwisely and so intensely interested in a woman that he literally forgets everything that common sense has taught him.

In medicine as well as in dentistry this normal everyday capacity for intensely directed attention can be employed to concentrate and redirect a patient's attentiveness and responsiveness to selected stimuli. This constitutes the use of hypnosis in painful terminal disease.

In treating such patients, the question is not one of treating the illness itself, since the patient is both dying and suffering painfully. The primary problem is how to treat the patient so that his human needs may be met as much as possible. Thus, it becomes a

complex problem of what the physical body has to have and what the patient as a personality needs, since cultural and individual psychological patterns are of as much and perhaps greater importance than the physiological experience of pain.

Before this audience there is no need to offer suggestions concerning the proper medically oriented procedures to employ in meeting the physical needs of the body. However, a statement should be made about meeting the physical needs of the body: Such treatment is just as important as the treatment of the psychological needs of the patient as a personality and should never be discredited. In fact, it is a prerequisite for any psychological treatment. Therefore, the question becomes: What is the adequate but at the same time the minimal treatment of the body? That it be minimal though adequate is essential, because in painful terminal disease sedatives, analgesics, and narcotics are employed that may deprive the patients of the privilege of knowing that they are alive and of enjoying what pleasures yet remain; also, they deprive relatives of adequate contacts with the patient. Hence, medication should be administered only in those quantities that meet the physical requirements without obstructing or defeating those psychological needs vital to the total life situation and which also require satisfactions even more than the physical.

To illustrate this point and to clarify the foregoing discussion, three case reports will be cited:

## **REPORT 1**

The first patient was a 37-year-old woman of grade-school education, mother of four children, dying of advanced metastatic carcinomatous disease originating in the uterus. For the three weeks preceding hypnosis she had been kept in a narcotic semistupor, since this was the only way to control her pain, to enable her to sleep, and to enable her to eat without extensive nausea and vomiting. The woman understood her condition and resented helplessly her inability to spend the remaining weeks of her life in contact with her family. The family physician finally decided to have hypnosis employed.

The situation was explained to the woman, and narcotics were omitted on the day she was to be hypnotized so that this could be done without excessive drug interference.

Approximately four continuous hours were spent with the woman, systematically teaching her how to go into a trance despite her attacks of pain, how to develop a numbness of her body, how to absorb herself in a state of profound fatigue so that she could have physiological sleep despite pain, and how to enjoy her food without gastric distress. No elaborate explanations were necessary, since her educational limitations and the desperateness of her situation motivated a ready acceptance of suggestions without questioning doubts. Additionally, she was trained hypnotically to respond to her husband, her oldest daughter, and to her family physician, so that hypnosis could be readily reinforced in the event of any new development.

This one time was the only occasion on which the patient was seen by the writer. Her motivation was so great that the one hypnotic training session was sufficient.

The previous medication, it was found, could actually be discontinued, except for one heavy hypodermic administration late Thursday evening. This gave her additional relief, and it allowed her to be in full contact with her family in a rested state on the weekends. Also she shared in the family evening activities during the week.

Six weeks after her first trance, while laughing and talking to her daughter, she suddenly lapsed into a coma and died two days later without recovering consciousness. Those six weeks had been decidedly happy and pain-free for her.

## **REPORT 2**

This 35-year-old woman, the mother of four small children and the wife of a professional man, was seen five weeks before her death from lung cancer. For a month before hypnosis, she had been almost continuously in a narcotic stupor, since the pain she experienced was unbearable to her. She asked that hypnosis be employed and voluntarily went without medication that entire day in her own self-determined effort to ready herself for hypnosis.

She was seen at 6:00 P.M., bathed in perspiration, suffering acutely from constant pain and greatly exhausted. Nevertheless, approximately four hours of continuous effort were required before a light trance could be induced. This light stage of hypnosis was immediately utilized to induce her to permit three things to be accomplished, all of which she had consistently refused to allow in the very intensity of her desire to be hypnotized. The first of these was the hypodermic administration of 1/8 grain of morphine sulfate, a most inadequate dosage for her physical needs, but one considered adequate for the immediate situation. The next was the serving to her of a pint of rich soup, and the third was the successful insistence upon an hour's restful physiological sleep. By 6:00 A.M. the patient, who finally proved to be an excellent somnambulistic subject, had been taught successfully everything considered to be essential to meet the needs of her situation.

The procedure followed was probably unnecessarily comprehensive, but the situation did not warrant any approach less inclusive. The first step was to teach her positive and negative hallucinations in the modalities of vision, hearing, taste, and smell. Then she was taught positive and negative hallucinations in the areas of touch, deep sensation, and kinesthesia, and in relation to this latter type of sensation, she was taught body disorientation and dissociation. When these learnings were sufficiently well acquired, the patient was given suggestions for glove and stocking anesthesias, and these were extended over her entire body. Thereupon it became possible to teach her rapidly combined partial analgesias and anesthesias for both superficial and deep sensations of all types. To this was added a combination of both body disorientation and body dissociation, so that these latter could supplement the former.

The patient was not seen again, either professionally or socially, but her husband telephoned or gave reports in person daily concerning the patient's condition.

She died suddenly five weeks later, in the midst of a happy social conversation with a neighbor and a relative.

During that five-week period she had been instructed to feel free to accept whatever medication she needed. Now and then she would suffer pain, but this was almost always controlled by aspirin. Sometimes a second dose of aspirin with codeine was needed, and on half a dozen occasions 1/8 grain of morphine was needed. Otherwise, except for her gradual progressive physical deterioration, the patient continued decidedly comfortable and cheerfully adjusted to the end.

### **REPORT 3**

The third patient was a professionally trained man of advanced years, who understood fully the nature of his carcinomatous illness. Because of his educational background it was both necessary and advantageous to develop the hypnotic suggestions with care in order to secure both his intellectual and his emotional cooperation. While resigned to his fate, he resented greatly the narcotic stupors he developed when given sufficient medication to control his pain. It was his earnest desire to spend his remaining days in the fullest possible contact with his family, but this he found difficult because of the severely agonizing recurrent pains he suffered. As a solution, he requested hypnosis, and he himself discontinued medication for 12 hours in order to avoid a possible narcotic interference with a trance development.

At the first hypnotic session all suggestions were directed to the induction of a state of profound physical fatigue, of overwhelming sleepiness, and of a need to enter physiological sleep and to rest sufficiently to permit the induction of a hypnotic trance. A light trance was induced that almost immediately lapsed into a physiological sleep of about 30 minutes' duration. He aroused from this definitely rested and most firmly convinced of the efficacy of hypnosis.

A second and, this time, medium trance was then induced. Systematically a series of suggestions was given in which a direct use was made of the patient's actual symptomatology. The rationale for this was to validate the hypnotic suggestions through utilization of the experiential validity of his symptoms.

Thus the patient was told that his body would feel tremendously heavy, that it would feel like a dull, leaden weight, so heavy that it would feel as if sodden with sleep and incapable of sensing anything else except heavy tiredness. These suggestions, repetitiously given and in varying phraseology to ensure comprehensive acceptance, were intended to utilize the patient's feeling of distressing weakness, previously unacceptable to him and to combine it with the complaint of "constant, heavy, dull, throbbing ache." In addition, suggestions were given that, again and again as he experienced the "dull, heavy tiredness" of his body, it would periodically go to sleep, while his mind remained awake.

Thus his distressing feeling of weakness and his dull, throbbing ache were utilized to secure a redirection and a reorientation of his attentiveness and responsiveness to his somatic sensations and to secure a new and acceptable perception of them. Also, by suggesting a sleeping of the body and wakefulness of the mind, a state of dissociation was induced. The next step was to reorient and redirect his attentiveness and responsiveness to the sharp, brief, constantly recurring, agonizing pains from which he suffered, usually less than 10 minutes apart. These pains, while brief, less than one minute in duration as timed by a watch, were experienced by the patient subjectively as "endless" and as essentially "continuous" in character.

The procedure followed included several steps.

First of all, he was oriented in relationship to subjective time values by asking him, at the expiration of a sharp pain, to fix his attention rigidly on the movement of the minute hand of a clock and to await the next sharp pain. The slightly more than seven minutes of waiting in anticipatory dread seemed hours long to the patient, and it was with definite relief from his feeling of wretched expectation that he suffered the next sharp pain. Thus anticipation and pain, as separate experiences, were differentiated for him. Also, he acquired in this way an understanding of time distortion (Cooper & Erickson, 1959), particularly that aspect of time distortion related to the lengthening or expansion of subjective time experience.

Next a careful explanation was given to him that freedom from the experience of pain could be accomplished in several ways—by anesthesia and by analgesia, both of which he understood, and by amnesia, which he did not understand. The explanation was offered that in amnesia for pain one could experience pain throughout its duration, but that one would immediately forget it and thus would not look back upon the experience with a feeling of horror and distress, nor look forward to another similar pain experience with anticipatory dread fear. In other words, each recurrent sharp pain could be and would become a totally unexpected and completely transient experience. Because it would be neither anticipated nor remembered, it would seem experientially to have no temporal duration. Hence, it would be experienced only as a momentary flash of sensation of such short duration that there would be no opportunity to recognize its character. In this fashion the patient was taught another aspect of time distortion—namely, a shortening, contraction, or condensation of subjective time. Thus, in addition to the possible hypnotic anesthesia, analgesia, or amnesia for the pains, there was also the hypnotic reduction of their subjective temporal duration which, in itself, would serve to diminish greatly the pain experience for the patient.

When these matters had been made clear to him, he was urged most insistently to employ all of the mechanisms that had been suggested—alteration of body sensations, body disorientation, dissociation, anesthesia, analgesia, amnesia, and subjective time condensation. In this way, it was argued, he could quite conceivably free himself from pain more readily than by employing a single psychological process. In addition, the suggestion was also offered emphatically that he employ subjective time expansion to lengthen experientially all periods of physical comfort, rest, or freedom from pain.

By this variety of differently directed suggestions, repetitiously given and in different phrasings to ensure adequate comprehension and acceptance, the patient's sharp recurring pains were abolished in large part insofar as observation of his objective behavior and his own subjective reports were concerned. However, it was noted that periodically he would lapse into a brief unresponsive stupor-like state of 10 to 50 seconds' duration, an item of behavior suggestive of a massive obscuring reaction to pain. It was noted that these were less frequent and shorter in duration than the original sharp pains had been. It was also observed that the patient appeared to have no realization whatsoever of his periodic lapses of awareness.

No systematic inquiry could be conducted into the actual efficacy of the suggestions. The patient simply reported that hypnosis had freed him almost completely of his pains, that he felt heavy, weak, and dull physically, and that not over twice a day did any pain "break through."

His general behavior with his family and friends validated his report. Some weeks after the beginning of hypnotic therapy the patient lapsed suddenly into coma and died without recovering consciousness.

### **SUMMARY AND GENERAL COMMENTS**

A presentation has been offered of the utilization of hypnosis in terminal painful disease. Three case reports, not entirely typical, have been presented in order to illustrate more adequately the actual possibilities of therapeutic benefits.

An effort has been made to describe the therapeutic methodologies employed, but this effort is not fully possible. Hypnotherapeutic benefits, especially in such cases as reported here, are markedly contingent upon a varied and repetitious presentation of ideas and understandings to ensure an adequate acceptance and responsiveness by the patient. Also, the very nature of the situation precludes a determination of what elements in the therapeutic procedure are effective in the individual case.

These three case reports indicate definitely that hypnosis can be of value in treating painful terminal illness. However, it is not to be regarded as an absolute answer to all the medical problems involved. Rather it is one of the possible approaches in the handling of the patient's problems that possesses special and highly significant values at both psychological and physiological levels.

While hypnosis can sometimes be used alone as a means of pain control in carcinomatous disease, more often it is properly used as an adjuvant. In that capacity it can serve to diminish significantly the actual drug dosage and to effect a much greater relief both mentally and physically. In all probability the more comprehensive psychologically the hypnotic approach, the greater is the possibility of therapeutic results.

## **References**

Cooper, L., and Erickson. M. (1959). *Time distortion in hypnosis*. Baltimore: Williams and Wilkins.

# **Interspersal Hypnotic Technique for Symptom Correction and Pain Control**

Milton H. Erickson

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Innumerable times this author has been asked to commit to print in detail the hypnotic technique he has employed to alleviate intolerable pain or to correct various other problems. The verbal replies made to these many requests have never seemed to be adequate since they were invariably prefaced by the earnest assertion that the technique in itself serves no other purpose than that of securing and fixating the attention of patients, creating then a receptive and responsive mental state, and thereby enabling them to benefit from unrealized or only partially realized potentials for behavior of various types. With this achieved by the hypnotic technique, there is then the opportunity to proffer suggestions and instructions serving to aid and to direct patients in achieving the desired goal or goals. In other words, the hypnotic technique serves only to induce a favorable setting in which to instruct patients in a more advantageous use of their own potentials of behavior.

Since the hypnotic technique is primarily a means to an end, while therapy derives from the guidance of the patient's behavioral capacities, it follows that, within limits, the same hypnotic technique can be utilized for patients with widely diverse problems. To illustrate, two instances will be cited in which the same technique was employed, once for a patient with a distressing neurotic problem and once for a patient suffering from intolerable pain from terminal malignant disease. The technique is one that the author has employed on the illiterate subject and upon the college graduate, in experimental situations and for clinical purposes. Often it has been used to secure, to fixate, and to hold the attention of difficult patients and to distract them from creating difficulties that would impede therapy. It is a technique employing ideas that are clear and comprehensible, but which by their patent irrelevance to the patient-physician relationship and situation distract the patient. Thereby the patients are prevented from intruding unhelpfully into a situation which they cannot understand and for which they are seeking help. At the same time a readiness to understand and to respond is created within the patient.

Thus, a favorable setting is evolved for the elicitation of needful and helpful behavioral potentialities not previously used, not fully used, or perhaps misused by the patient.

The first instance to be cited will be given without any account of the hypnotic technique employed. Instead, there will be given the helpful instructions, suggestions, and guiding ideas which enabled the patient to achieve his therapeutic goal and which were interspersed among the ideas constituting the hypnotic technique. These therapeutic ideas will not be cited as repetitiously as they were verbalized to the patient for the reason that

they are more easily comprehended in cold print than when uttered as a part of a stream of utterances. Yet, these few repeated suggestions in the hypnotic situation served to meet the patient's needs adequately.

The patient was a 62-year-old retired farmer with only an eighth-grade education, but decidedly intelligent and well read. He actually possessed a delightful, charming, outgoing personality, but he was most unhappy, filled with resentment, bitterness, hostility, suspicion, and despair. Approximately two years previously, for some unknown or forgotten reason (regarded by the author as unimportant and as having no bearing upon the problem of therapy), he had developed a urinary frequency that was most distressing to him. Approximately every half-hour he felt a compelling urge to urinate, an urge that was painful, that he could not control, and that would result in a wetting of his trousers if he did not yield to it. This urge was constantly present day and night. It interfered with his sleep, his eating, and his social adjustments, and compelled him to keep within close reach of a lavatory and to carry a briefcase containing several pairs of trousers for use when he was "caught short." He explained that he had brought, into the office a briefcase containing three pairs of trousers, and he stated that he had visited a lavatory before leaving for the author's office, another on the way, and that he had visited the office lavatory before entering the office, and that he expected to interrupt the interview with the author by at least one other such visit.

He related that he had consulted more than 100 physicians and well-known clinics. He had been cystoscoped more than 40 times, had had innumerable X-ray pictures taken and countless tests, some of which were electroencephalograms and electrocardiograms. Always he was assured that his bladder was normal; many times he was offered the suggestion to return after a month or two for further study; and "too many times" he was told that "it's all in your head," that he had no problem at all, that he "should get busy doing something instead of being retired, and to stop pestering doctors and being an old crock." All of this had made him feel like committing suicide.

He had described his problem to a number of writers of syndicated medical columns in newspapers, several of whom offered him in his stamped self-addressed envelope a pontifical platitudinous dissertation innovative upon his problem, stressing it as one of obscure organic origin. In all of his searching not once had it been suggested that he seek psychiatric aid.

On his own initiative, after reading two of the misleading, misinforming, and essentially fraudulent books on "do-it-yourself hypnosis," he did seek the aid of stage hypnotists—in all, three in number. Each offered him the usual blandishments, reassurances, and promises common to that type of shady medical practice, and each failed completely in repeated attempts at inducing a hypnotic trance. Each charged an exorbitant fee (as judged by a standard medical fee, and especially in relation to the lack of benefit received).

As a result of all this mistreatment, the medical no better than that of the charlatans and actually less forgivable, he had become bitter, disillusioned, resentful, and openly hostile,

and he was seriously considering suicide. A gas station attendant suggested that he see a psychiatrist and recommended the author on the basis of a Sunday newspaper article. This accounted for his visit to the author.

Having completed his narrative, he leaned back in his chair, folded his arms, and challengingly said, "Now psychiatrize and hypnotize me and cure this—bladder of mine."

During the narration of the patient's story the author had listened with every appearance of rapt attention except for a minor idling with his hands, thereby shifting the position of objects on his desk. This idling included a turning of the face of the desk clock away from the patient. As he listened to the patient's bitter account of his experiences, the author was busy speculating upon possible therapeutic approaches to a patient so obviously unhappy, so resentful toward medical care and physicians, and so challenging in attitude. He certainly did not appear to be likely to be receptive and responsive to anything the author might do or say. As the author puzzled over this problem, there came to mind the problem of pain control for a patient suffering greatly in a terminal state of malignant disease. That patient had constituted a comparable instance where a hypnotherapeutic approach had been most difficult, yet success had been achieved. Both patients had in common the experience of growing plants for a livelihood, both were hostile and resentful, and both were contemptuous of hypnosis. Hence, when the patient issued his challenge of "psychiatrize and hypnotize me," the author, with no further ado, launched into the same technique employed with that other patient to achieve a hypnotherapeutic state in which helpful suggestions, instructions, and directions could be offered with reasonable expectation that they would be accepted and acted upon responsively in accord with the patient's actual needs and behavioral potentials. . . .

The only difference for the two patients was that the interwoven therapeutic material for the one patient pertained to bladder function and duration of time. For the other patient the interwoven therapeutic instructions pertained to body comfort, to sleep, to appetite, to the enjoyment of the family, to an absence of any need for medication, and to the continued enjoyment of time without concern about the morrow.

The actual verbal therapy offered, interspersed as it was in the ideation of the technique itself, was as follows, with the interspersing denoted by dots.

You know, we could think of your bladder needing emptying every 15 minutes instead of every half . . . hour . . . Not difficult to think that . . . A watch can run slow . . . or fast . . . be wrong even a minute . . . even two, five minutes . . . or think of bladder every half hour . . . like you've been doing . . . maybe it was 35, 40 minutes sometimes . . . like to make it an hour . . . what's the difference . . . 35, 36 minutes, 41, 42, 45 minutes . . . not much difference . . . not important difference . . . 45, 46, 47 minutes . . . all the same . . . lots of times you maybe had to wait a second or two . . . felt like an hour or two . . . you made it . . . you can again . . . 47 minutes, 50 minutes, what's the difference . . . stop to think, no great difference, nothing important . . . just like

50 minutes, 60 minutes, just minutes . . . anybody that can wait half an hour can wait an hour . . . I know it . . . you are learning . . . not bad to learn . . . in fact, good . . . come to think of it, you have had to wait when somebody got there ahead of you . . . you made it too . . . can again . . . and again . . . all you want to . . . hour and 5 minutes . . . hour and 5½ minutes . . . what's the difference . . . or even 6½ minutes . . . make it 10½ hour and 10½ minutes . . . one minute, 2 minutes, one hour, 2 hours, what's the difference . . . you got half a century or better of practice in waiting behind you . . . you can use all that . . . why not use it . . . you can do it . . . probably surprise you a lot . . . won't even think of it . . . why not surprise yourself at home . . . good idea . . . nothing better than a surprise . . . an unexpected surprise . . . how long can you hold out . . . that's the surprise . . . longer than you even thought . . . lots longer . . . might as well begin . . . nice feeling to begin . . . to keep on . . . Say, why don't you just forget what I've been talking about and just keep it in the back of your mind. Good place for it—can't lose it. Never mind the tomato plant—just what was important about your bladder—pretty good, feel fine, nice surprise—say, why don't you start feeling rested, refreshed right now, wider awake than you were earlier this morning [this last statement is, to the patient, an indirect, emphatic, definitive instruction to arouse from his trance]. Then [as a dismissal but not consciously recognizable as such by the patient], why don't you take a nice leisurely walk home, thinking about nothing? [an amnesia instruction for both the trance and his problem, and also a confusion measure to obscure the fact that he had already spent 1½ hours in the office]. I'll be able to see you at ten A.M. a week from today [furthering his conscious illusion, resulting from his amnesia, that nothing yet had been done except to give him an appointment].

A week later he appeared and launched into an excited account of arriving home and turning on the television with an immediate firm intention of delaying urination as long as possible. He watched a two-hour movie and drank two glasses of water during the commercials. He decided to extend the time another hour and suddenly discovered that he had so much bladder distension that he had to visit the lavatory. He looked at his watch and discovered that he had waited four hours. The patient leaned back in his chair and beamed happily at the author, obviously expecting praise. Almost immediately he leaned forward with a startled look and declared in amazement, "It all comes back to me now. I never give it a thought till just now. I plumb forgot the whole thing. Say, you must have hypnotized me. You were doing a lot of talking about growing a tomato plant and I was trying to get the point of it and the next thing I knew I was walking home. Come to think of it I must of been in your office over an hour and it took an hour to walk home. It wasn't no four hours I held back, it was over six hours at least. Come to think of it, that ain't all. That was a week ago that happened. Now I recollect I ain't had a bit of trouble all week—slept fine—no getting up. Funny how a man can get up in the morning, his mind all set on keeping an appointment to tell something, and forget a whole week has went by. Say, when I told you to psychiatrize and hypnotize me, you sure took it serious. I'm right grateful to you. How much do I owe you?"

Essentially, the case was completed, and the remainder of the hour was spent in social small talk with a view of detecting any possible doubts or uncertainties in the patient. There were none, nor, in the months that have passed, have there occurred any.

The above case report allows the reader to understand in part how, during a technique of suggestions for trance induction and trance maintenance, hypnotherapeutic suggestions can be interspersed for a specific goal. In the author's experience such an interspersing of therapeutic suggestions among the suggestions for trance maintenance may often render the therapeutic suggestions much more effective. The patients hear them and understand them, but before they can take issue with them or question them in any way, their attention is captured by the trance-maintenance suggestions. And these in turn are but a continuance of the trance-induction suggestions. Thus, there is given to the therapeutic suggestion an aura of significance and effectiveness deriving from the already effective induction and maintenance suggestions. Then again the same therapeutic suggestions can be repeated in this interspersed fashion, perhaps repeated many times, until the therapist feels confident that the patient has absorbed the therapeutic suggestions adequately. Then the therapist can progress to another aspect of therapy using the same interspersal technique.

The above report does not indicate the number of repetitions for each of the therapeutic suggestions for the reason that the number must vary with each set of ideas and understandings conveyed and with each patient and each therapeutic problem.

Additionally, such interspersal of suggestions for amnesia and posthypnotic suggestions among the suggestions for trance maintenance can be done most effectively. To illustrate from everyday life: A double task assignment is usually more effective than the separate assignment of the same two tasks. For example, a mother may say, "Johnny, as you put away your bicycle, just step over and close the garage door." This has the sound of a single task, one aspect of which favors the execution of another aspect, and thus there is the effect of making the task seem easier. To ask that the bicycle be put away and then to ask that the garage door be closed has every sound of being two separate, not to be combined, tasks. To the separate tasks a refusal can be given easily to one or the other task or to both. But a refusal when the tasks are combined into a single task means what? That he will not put away the bicycle? That he will not step over to the garage? That he will not close the garage door?

The very extent of the effort needed to identify what one is refusing in itself is a deterrent to refusal. Nor can a refusal of the "whole thing" be offered comfortably. Hence Johnny may perform the combined task unwillingly but may prefer to do so rather than to analyze the situation. To the single tasks he can easily say "later" to each. But to the combined task he cannot say "Later" since, if he puts away the bicycle "later," he must "immediately" step over to the garage and "immediately" close the door. This is specious reasoning, but it is the "emotional reasoning" that is common in daily life, and daily living is not an exercise in logic. As a common practice the author says to a patient, "As you sit down in the chair, just go into a trance." The patient is surely going to sit down in the chair. But going into a trance is made contingent upon sitting down, hence a trance state develops from what the patient was most certainly going to do. By combining

psychotherapeutic, amnestic, and posthypnotic suggestions with those suggestions used first to induce a trance, and then to maintain that trance, constitutes an effective measure in securing desired results. Contingency values are decidedly effective. As a further illustration, more than once a patient who has developed a trance upon simply sitting down has said to the author, "I didn't intend to go into a trance today." In reply the author has stated, "Then perhaps you would like to awaken from the trance and hence, *as you understand that* you can go back into a trance when you need to, *you will awaken.*" Thus the "awakening" is made contingent upon "understanding," thereby ensuring further trances through association by contingency.

With this explanation of rationale the problem of the second patient will be presented after a few preliminary statements. These are that the author was reared on a farm, enjoyed and still enjoys growing plants, and has read with interest about the processes of seed germination and plant growth. The first patient was a retired farmer. The second, who will be called "Joe" for convenience, was a florist. He began his career as a boy by peddling flowers, saving his pennies, buying more flowers to peddle, etc. Soon he was able to buy a small parcel of land on which to grow more flowers with loving care while he enjoyed their beauty which he wanted to share with others, and in turn, to get more land and to grow more flowers, etc. Eventually he became the leading florist in a large city. Joe literally loved every aspect of his business and was intensely devoted to it but he was also a good husband, a good father, a good friend, and a highly respected and valued member of the community.

Then one fateful September a surgeon removed a growth from the side of Joe's face, being careful not to disfigure Joe's face too much. The pathologist reported the growth to be a malignancy. Radical therapy was then instituted, but it was promptly recognized as "too late."

Joe was informed that he had about a month left to live. Joe's reaction was, to say the least, unhappy and distressed. In addition he was experiencing much pain—in fact, extremely severe pain.

At the end of the second week in October a relative of Joe's urgently requested the author to employ hypnosis on Joe for pain relief since narcotics were proving of little value. In view of the prognosis that had been given for Joe the author agreed reluctantly to see him, stipulating that all medication be discontinued at 4:00 A.M. of the day of the author's arrival. To this the physicians in charge of Joe at the hospital courteously agreed.

Shortly before the author was introduced to Joe, he was informed that Joe disliked even the mention of the word hypnosis. Also, one of Joe's children, a resident in psychiatry at a well-known clinic, did not believe in hypnosis and had apparently been confirmed in this disbelief by the psychiatric staff of the clinic, none of whom is known to have had any firsthand knowledge of hypnosis. This resident would be present, and the inference was that Joe knew of that disbelief.

The author was introduced to Joe, who acknowledged the introduction in a most courteous and friendly fashion. It is doubtful if Joe really knew why the author was there. Upon inspecting Joe, it was noted that much of the side of his face and neck was missing because of surgery, ulceration, maceration, and necrosis. A tracheotomy had been performed on Joe, and he could not talk. He communicated by pencil and paper, many pads of which were ready at hand. The information was given that every four hours Joe had been receiving narcotics (  $\frac{1}{4}$  grain of morphine or 100 milligrams of Demerol) and heavy sedation with barbiturates. He slept little. Special nurses were constantly at hand. Yet Joe was constantly hopping out of bed, writing innumerable notes, some pertaining to his business, some to his family, but many of them were expressive of complaints and demands for additional help. Severe pain distressed him continuously, and he could not understand why the doctors could not handle their business as efficiently and as competently as he did his floral business. His situation enraged him because it constituted failure in his eyes. Success worked for and fully merited had always been a governing principle in his life. When things went wrong with his business, he made certain to correct them. Why did not the doctors do the same? The doctors had medicine for pain, so why was he allowed to suffer such intolerable pain?

After the introduction Joe wrote, "What you want?" This constituted an excellent opening, and the author began his technique of trance induction and pain relief. This will not be given in its entirety since a large percentage of the statements made were repeated, not necessarily in succession but frequently by referring back to a previous remark and then repeating a paragraph or two. Another preliminary statement needed is that the author was most dubious about achieving any kind of success with Joe since, in addition to his physical condition, there were definite evidences of toxic reactions to excessive medication. Despite the author's unfavorable view of possibilities there was one thing of which he could be confident. He could keep his doubts to himself and he could let Joe know by manner, tone of voice, by everything said that the author was genuinely interested in him, was genuinely desirous of helping him. If even that little could be communicated to Joe, it should be of some comfort, however small, to Joe and to the family members and to the nurses within listening distance in the side room.

The author began:

Joe, I would like to talk to you. I know you are a florist, that you grow flowers, and I grew up on a farm in Wisconsin and I liked growing flowers. I still do. So I would like to have you take a seat in that easy chair as I talk to you. I'm going to say a lot of things to you, but it won't be about flowers because you know more than I do about flowers. That isn't what you want. [The reader will note that italics will be used to denote interspersed hypnotic suggestions which may be syllables, words, phrases, or sentences uttered with a slightly different intonation; Now as I talk, and I can do so *comfortably*, I wish that you will *listen to me comfortably* as I talk about a tomato plant. That is an odd thing to talk about. It makes one *curious*. *Why talk about a tomato plant?* One puts a tomato seed in the ground. One can *feel hope* that it will grow into a tomato plant that *will bring satisfaction* by the fruit it has. The seed soaks up water, *not very much difficulty* in

doing that because of the rains that *bring peace and comfort* and the joy of growing to flowers and tomatoes. That little seed, Joe, slowly swells, sends out a little rootlet with cilia on it. Now you may not know what cilia are, but cilia are *things that work* to help the tomato seed grow, to push up above the ground as a sprouting plant, and *you can listen to me*, Joe, so I will keep on talking and *you can keep on listening, wondering, just wondering what you can really learn*, and here is your pencil and your pad, but speaking of the tomato plant, it grows so slowly. *You cannot see it grow, you cannot hear it grow*, but grow it does—the first little leaf-like things on the stalk, the fine little hairs on the stem, those hairs are on the leaves, too, like the cilia on the roots, they must make the tomato plant *feel very good, very comfortable* if you can think of a plant as feeling, and then *you can't see it growing, you can't feel it growing*, but another leaf appears on that little tomato stalk and then another. Maybe, and this is talking like a child, maybe the tomato plant does feel comfortable and peaceful as it grows. Each day it grows and grows and grows, *it's so comfortable, Joe*, to watch a plant grow and *not see its growth, not feel it*, but just know that *all is getting better* for that little tomato plant that is adding yet another leaf and still another and a branch, and it is *growing comfortably* in all directions. [Much of the above by this time had been repeated many times, sometimes just phrases, sometimes sentences. Care was taken to vary the wording and also to repeat the hypnotic suggestions. Quite some time after the author had begun, Joe's wife came tiptoeing into the room carrying a sheet of paper on which was written the question, "When are you going to start the hypnosis?" The author failed to cooperate with her by looking at the paper and it was necessary for her to thrust the sheet of paper in front of the author and therefore in front of Joe. The author was continuing his description of the tomato plant uninterruptedly, and Joe's wife, as she looked at Joe, saw that he was not seeing her, did not know that she was there, that he was in a somnambulistic trance. She withdrew at once.] And soon the tomato plant will have a bud form somewhere, on one branch or another, but it makes no difference because all the branches, the whole tomato plant will soon have those nice little buds—I wonder if the tomato plant can, *Joe, feel really feel a kind of comfort*. You know, Joe, a plant is a wonderful thing, and *it is so nice*, so pleasing just to be able to think about a plant as if it were a man. Would such a plant *have nice feelings, a sense of comfort* as the tiny little tomatoes begin to form, so tiny, yet so *full of promise to give you the desire to eat a luscious tomato, sun-ripened, it's so nice to have food in one's stomach*, that wonderful feeling a child, a thirsty child, has and can *want a drink, Joe*, is that the way the tomato plant feels when the rain falls and washes everything so that *all feels well*. [Pause.] You know, Joe, a tomato plant just flourishes each day *just a day at a time*. I like to think the tomato plant can *know the fullness of comfort each day*. You know, Joe, *just one day at a time* for the tomato plant. That's the way for all tomato plants. [Joe suddenly came out of the trance, appeared disoriented, hopped upon the bed, and waved his arms; his behavior was highly suggestive of the sudden surges of toxicity one sees in patients who have reacted unfavorably to barbiturates. Joe did not seem to hear or see the author until he hopped off the bed and walked toward the author. A firm grip was taken on Joe's arm and then immediately loosened. The nurse was

summoned. She mopped perspiration from his forehead, changed his surgical dressings, and gave him, by tube, some ice water. Joe then let the author lead him back to his chair. After a pretense by the author of being curious about Joe's forearm, Joe seized his pencil and paper and wrote, "Talk, talk."] "Oh yes, Joe, I grew up on a farm, I think a tomato seed is a wonderful thing; *think, Joe, think* in that little seed there does *sleep so restfully, so comfortably* a beautiful plant yet to be grown that will bear such interesting leaves and branches. The leaves, the branches look so beautiful, that beautiful rich color, *you can really feel happy* looking at a tomato seed, thinking about the wonderful plant it contains *asleep, resting, comfortable, Joe*. I'm soon going to leave for lunch and I'll be back and I will talk some more."

The above is a summary to indicate the ease with which hypnotherapeutic suggestions can be included in the trance induction along with trance-maintenance suggestions, which are important additionally as a vehicle for the transmission of therapy. Of particular significance is Joe's own request that the author "talk." Despite his toxic state, spasmodically evident, Joe was definitely accessible. Moreover, he learned rapidly despite the absurdly amateurish rhapsody the author offered about a tomato seed and plant. Joe had no real interest in pointless, endless remarks about a tomato plant. Joe wanted freedom from pain, he wanted comfort, rest, sleep. This was what was uppermost in Joe's mind, foremost in his emotional desires, and he would have a compelling need to try to find something of value to him in the author's babbling. That desired value was there, so spoken that Joe could literally receive it without realizing it. Joe's arousal from the trance was only some minutes after the author had said so seemingly innocuously, "want a drink, Joe." Nor was the reinduction of the trance difficult, achieved by two brief phrases, "think, Joe, think" and "sleep so restfully, so comfortably" imbedded in a rather meaningless sequence of ideas. But what Joe wanted and needed was in that otherwise meaningless narration, and he promptly accepted it.

During lunchtime Joe was first restful and then slowly became restless; another toxic episode occurred, as reported by the nurse. By the time the author returned Joe was waiting impatiently for him. Joe wanted to communicate by writing notes. Some were illegible because of his extreme impatience in writing. He would irritably rewrite them. A relative helped the author to read these notes. They concerned things about Joe, his past history, his business, his family, and "last week terrible," "yesterday was terrible." There were no complaints, no demands, but there were some requests for information about the author. After a fashion a satisfying conversation was had with him as was judged by an increasing loss of his restlessness. When it was suggested that he cease walking around and sit in the chair used earlier, he did so readily and looked expectantly at the author.

"*You know, Joe, I could talk to you some more about the tomato plant and if I did you would probably go to sleep, in fact, a good sound sleep.* [This opening statement has every earmark of being no more than a casual commonplace utterance. If the patient responds hypnotically, as Joe promptly did, all is well. If the patient does not respond, all you have said was just a commonplace remark, not at all noteworthy. Had Joe not gone

into a trance immediately, there could have been a variation such as: "But instead, let's talk about the tomato flower. You have seen movies of flowers *slowly, slowly* opening, giving one *a sense of peace, a sense of comfort* as you watch the unfolding. So beautiful, *so restful* to watch. One can feel such infinite comfort watching such a movie."]

It does not seem to the author that more needs to be said about the technique of trance induction and maintenance and the interspersal of therapeutic suggestions. Another illustration will be given later in this paper.

Joe's response that afternoon was excellent despite several intervening episodes of toxic behavior and several periods where the author deliberately interrupted his work to judge more adequately the degree and amount of Joe's learning.

Upon departure that evening, the author was cordially shaken by hand by Joe, whose toxic state was much lessened. Joe had no complaints, he did not seem to have distressing pain, and he seemed to be pleased and happy.

Relatives were concerned about posthypnotic suggestions, but they were reassured that such had been given. This had been done most gently in describing so much in detail and repetition the growth of the tomato plant and then, with careful emphasis, "*You know Joe,*" "*Know the fullness of comfort each day,*" and "*You know, Joe, just one day at a time.*"

About a month later, around the middle of November, the author was requested to see Joe again. Upon arriving at Joe's home, he was told a rather regrettable but not actually unhappy story. Joe had continued his excellent response after the author's departure on that first occasion, but hospital gossip had spread the story of Joe's hypnosis, and interns, residents, and staff men came in to take advantage of Joe's capacity to be a good subject. They made all the errors possible for uninformed amateurs with superstitious misconceptions of hypnosis. Their behavior infuriated Joe, who knew that the author had done none of the offensive things they were doing. This was a fortunate realization since it permitted Joe to keep all the benefits acquired from the author without letting his hostilities toward hypnosis interfere. After several days of annoyance Joe left the hospital and went home, keeping one nurse in constant attendance, but her duties were relatively few.

During that month at home he had actually gained weight and strength. Rarely did a surge of pain occur, and when it did it could be controlled either with aspirin or with 25 milligrams of Demerol. Joe was very happy to be with his family, and there was considerable fruitful activity about which the author is not fully informed.

Joe's greeting to the author on the second visit was one of obvious pleasure. However, the author noted that Joe was keeping a wary eye on him, hence great care was taken to be completely casual and to avoid any hand movement that could be remotely misconstrued as a "hypnotic pass" such as the hospital staff had employed.

Framed pictures painted by a highly talented member of his family were proudly displayed. There was much casual conversation about Joe's improvement and his weight gain, and the author was repeatedly hard pushed to find simple replies to conceal pertinent suggestions. Joe did volunteer to sit down and let the author talk to him. Although the author was wholly casual in manner, the situation was thought to be most difficult to handle without arousing Joe's suspicions. Perhaps this was an unfounded concern, but the author wished to be most careful. Finally the measure was employed of reminiscing about "our visit last October." Joe did not realize how easily this visit could be pleasantly vivified for him by such a simple statement as, "I talked about a tomato plant then, and it almost seems as if I could be *talking about a tomato plant right now. It is so enjoyable to talk about a seed, a plant.*" Thus there was, clinically speaking, a re-creation of all of the favorable aspects of that original interview.

Joe was most insistent on supervising the author's luncheon that day, which was a steak barbecued under Joe's watchful eye in the backyard beside the swimming pool. It was a happy gathering of four people thoroughly enjoying being together, Joe being obviously most happy.

After luncheon Joe proudly displayed the innumerable plants, many of them rare, that he had personally planted in the large backyard. Joe's wife furnished the Latin and common names for the plants, and Joe was particularly pleased when the author recognized and commented on some rare plant. Nor was this a pretense of interest, since the author is still interested in growing plants. Joe regarded this interest in common to be a bond of friendship.

During the afternoon Joe sat down voluntarily, his very manner making evident that the author was free to do whatever he wished. A long monologue by the author ensued in which were included psychotherapeutic suggestions of continued ease, comfort, freedom from pain, enjoyment of family, good appetite, and a continuing pleased interest in all surroundings. All of these and other similar suggestions were interspersed unnoticeably among the author's many remarks. These covered a multitude of topics to preclude Joe from analyzing or recognizing the interspersing of suggestions. Also, for adequate disguise, the author needed a variety of topics. Whether or not such care was needed in view of the good rapport is a debatable question, but the author preferred to take no risks.

Medically, the malignancy was continuing to progress, but despite this fact Joe was in much better physical condition than he had been a month previously. When the author took his departure, Joe invited him to return again.

Joe knew that the author was going on a lecture trip in late November and early December. Quite unexpected by the author, a long distance telephone call was received just before the author's departure on this trip. The call was from Joe's wife, who stated, "Joe is on the extension line and wants to say 'hello' to you, so listen." Two brief puffs of air were heard. Joe had held the telephone mouthpiece over his tracheotomy tube and had exhaled forcibly twice to simulate "hello." His wife stated that both she and Joe extended

their best wishes for the trip, and a casual conversation among friends ensued with Joe's wife reading Joe's written notes.

A Christmas greeting card was received from Joe and his family. In a separate letter Joe's wife said that "the hypnosis is doing well, but Joe's condition is failing." Early in January Joe was weak but comfortable. Finally, in his wife's words, "Joe died quietly January 21."

The author is well aware that the prediction of the duration of life for any patient suffering from a fatal illness is most questionable. Joe's physical condition in October did not promise very much. The symptom amelioration, abatement, and actual abolition effected by hypnosis, and the freedom of Joe's body from potent medications, conducive only of unawareness, unquestionably increased his span of life while at the same time permitting an actual brief physical betterment in general. This was attested clearly by his improved condition at home and his gain in weight. That Joe lived until the latter part of January despite the extensiveness of his malignant disease undoubtedly attests to the vigor with which Joe undertook to live the remainder of his life as enjoyably as possible, a vigor expressive of the manner in which he had lived his life and built his business.

To clarify still further this matter of the technique of the interspersal of therapeutic suggestions among trance induction and trance maintenance suggestions, it might be well to report the author's original experimental work done while he was on the Research Service of the Worcester State Hospital in Worcester, Massachusetts in the early 1930s.

The Research Service was concerned with the study of the numerous problems of schizophrenia and the possibilities of solving some of them. To the author the psychological manifestations were of paramount interest. For example, just what did a stream of disconnected, rapidly uttered incoherencies mean? Certainly, such a stream of utterances must be most meaningful to the patient in some way. Competent secretaries from time to time had recorded verbatim various examples of such disturbed utterances for the author's perusal and study. The author himself managed to record adequately similar such productions by patients who spoke slowly. Careful study of these verbal productions, it was thought, might lead to various speculative ideas that in turn might prove of value in understanding something about schizophrenia.

The question arose of whether or not much of the verbigeration might be a disguise for concealed meanings, fragmented and dispersed among the total utterances. This led to the question of how the author could himself produce a series of incoherencies in which he could conceal in a fragmented form a meaningful message. Or could he use the incoherencies of a patient and intersperse among them in a somewhat orderly fashion a fragmented, meaningful communication that would be difficult to recognize? This speculation gave rise to many hours of intense labor spent fitting into a patient's verbatim, apparently meaningless utterances a meaningful message that could not be detected by the author's colleagues when no clue of any sort was given to them. Previous efforts at producing original incoherencies by the author disclosed a definite and

recognizable personal pattern indicating that the author was not sufficiently disturbed mentally to produce a bonafide stream of incoherent verbigerations.

When a meaning was interspersed in a patient's productions successfully, the author discovered that his past hypnotic experimentation with hypnotic techniques greatly influenced the kind of a message he was likely to intersperse in a patient's verbigerations. Out of this labor came the following experimental and therapeutic work.

One of the more recently hired secretaries objected strongly to being hypnotized. She suffered regularly upon the onset of menstruation from severe migrainous headaches lasting three to four or even more hours. She had been examined repeatedly by the medical service with no helpful findings. She usually retired to the lounge and "slept off the headache," a process usually taking three or more hours. On one such occasion she had been purposely and rather insistently forced to take dictation by the author instead of being allowed to retire to the lounge. Rather resentfully she began her task, but within 15 minutes she interrupted the author to explain that her headache was gone. She attributed this to her anger at being forced to take dictation. Later, on another such occasion, she volunteered to take certain dictation which all of the secretaries tried to avoid because of the difficulties it presented. Her headache grew worse, and she decided that the happy instance with the author was merely a fortuitous happenstance. Subsequently she had another severe headache. She was again insistently requested by the author to take some dictation. The previous happy result occurred within 10 minutes. Upon the occurrence of another headache she volunteered to take dictation from the author. Again it served to relieve her headache. She then experimentally tested the benefits of dictation from other physicians. For some unknown reason her headaches only worsened. She returned from one of these useless attempts to the author and asked him to dictate. She was told he had nothing on hand to dictate but that he could redictate previously dictated material. Her headache was relieved within eight minutes. Later her request for dictation for headache relief was met by some routine dictation. It failed to have any effect.

She came again, not too hopefully, since she thought she had "worn out the dictation remedy." Again she was given dictation with a relief of her distress in about nine minutes. She was so elated that she kept a copy of the transcript so that she could ask others to dictate "that successful dictation" to relieve her headaches. Unfortunately, nobody seemed to have the "right voice," as did the author. Always, a posthypnotic suggestion was casually given that there would be no falling asleep while transcribing.

She did not suspect, nor did anybody else, what had really been done. The author had made comprehensive notes of the incoherent verbigeration of a psychotic patient. He had also had various secretaries make verbatim records of patients' incoherent utterances. He had then systematically interspersed therapeutic suggestions among the incoherencies with that secretary in mind. When this was found to be successful, the incoherent utterances of another patient were utilized in a similar fashion. This was also a successful effort. As a control measure, routine dictation and the dictation of "undocored incoherencies" were tried. These had no effect upon her headaches. Nor did the use by

others of “doctored” material have an effect, since it had to be read aloud with some degree of expressive awareness to be effective.

The question now arises, why did these two patients and those patients used experimentally respond therapeutically? This answer can be given simply as follows: They knew very well why they were seeking therapy; they were desirous of benefiting; they came in a receptive state, ready to respond at the first opportunity, except for the first experimental patient. But she was eager to be freed from her headache and wished the time being spent taking dictation could be time spent getting over her headache. Essentially, then, all of the patients were in a frame of mind to receive therapy. How many times does a patient need to state his complaint? Only that number of times requisite for the therapist to understand. For all of these patients only one statement of the complaint was necessary, and they then knew that the therapist understood. Their intense desire for therapy was not only a conscious but an unconscious desire also, as judged clinically, but more importantly, as evidenced by the results obtained.

One should also give recognition to the readiness with which one’s unconscious mind picks up clues and information. For example, one may dislike someone at first sight and not become consciously aware of the obvious and apparent reasons for such dislike for weeks, months, even a year or more. Yet finally the reasons for the dislike become apparent to the conscious mind. A common example is the ready hostility frequently shown by a normal heterosexual person toward a homosexual person without any conscious realization of why.

Respectful awareness of the capacity of the patient’s unconscious mind to perceive meaningfulness of the therapist’s own unconscious behavior is a governing principle in psychotherapy. There should also be a ready and full respect for the patient’s unconscious mind to perceive fully the intentionally obscured, meaningful therapeutic instructions offered them. The clinical and experimental material cited above is based upon the author’s awareness that the patient’s unconscious mind is listening and understanding much better than is possible for his conscious mind. It was intended to publish this experimental work, of which only the author was aware. But sober thought and awareness of the insecure status of hypnosis in general, coupled with that secretary’s strong objection to being hypnotized—she did not mind losing her headaches by “taking dictation” from the author—all suggested the inadvisability of publication.

A second secretary, employed by the hospital when this experimental work was nearing completion, always suffered from disabling dysmenorrhea. The “headache secretary” suggested to this girl that she take dictation from the author as a possible relief measure. Most willingly the author obliged, using “doctored” patient verbigeration. It was effective.

Concerned about what might happen to hypnotic research if his superiors were to learn of what was taking place, the author carefully failed with this second secretary and then again succeeded. She volunteered to be a hypnotic subject, and hypnosis, not “dictation,” was then used to meet her personal needs. She also served repeatedly as a subject for

various frankly acknowledged and “approved” hypnotic experiments, and the author kept his counsel in certain other experimental studies.

Now that hypnosis has come to be an acceptable scientific modality of investigative and therapeutic endeavor and there has developed a much greater awareness of semantics, this material, so long relegated to the shelf of unpublished work, can safely be published.

## **SUMMARY**

Two case histories and a brief account of experimental work are presented in detail to demonstrate the effective procedure of interspersing psychotherapeutic suggestions among those employed to induce and to maintain a hypnotic trance. The patients treated suffered respectively from neurotic manifestations and the pain of terminal malignant disease.

# Hypnotic Training for Transforming the Experience of Chronic Pain

Milton H. Erickson and Ernst L. Rossi

Unpublished dialogue between Erickson and Ernst L. Rossi, 1973.

E: You have a patient that comes to you for chronic pain. He has been in the waiting room and then comes into your office. You put him in a trance, tell him to walk back into the waiting room, leave his pain there, and come back into the office. Tell it to him as if you were telling him to take his jacket into the other room and leave it there.

R: You tell it to him that casually?

E: Yes. When he comes back you tell him, "Now I want to awaken you while your pain is still in the waiting room." You talk casually about various things, and when the hour is over you have him leave by the other door out of the office because he says he doesn't want to go back through the waiting room where the pain is. He doesn't know why he says that because he doesn't know he left his pain there.

R: I wonder if this is a form of literalness where the patient follows your casual suggestion and treats the pain as a reified or concrete thing that can be left behind like a jacket?

E: It is. But bear in mind that the patient's pain will seep back.

R: How do we prevent the pain from seeping back? You will recall the patient of mine who has the back pain. Her X-rays showed an organic source of the pain, and the medical recommendation was an operation to fuse her vertebrae. She comes into my office and goes into trance beautifully and becomes completely free of pain while with me. For a brief period of time, after awakening from the trance and while still in my office, she remains free of pain. Then it begins to seep back when she leaves the office. Now I would like to prevent that pain from seeping back so quickly. I've trained her in self-hypnosis so she can be free of pain by herself when in trance at home. It works for her while she's in trance. As soon as she comes out of the trance, however, her pain is there again. How can we extend the relief for her?

E: One of the best measures for teaching extended pain relief is to teach the patient to let catalepsy persist.

R: In the painful part of the body?

E: No!

R: In any body part.

E: You saw the demonstration I did with the visiting psychiatrists who did not believe they could experience catalepsy.

R: Yet they did experience it bit by bit and even discussed all their sensations in detail as they learned the cataleptic experience of an arm becoming rigid and immobile.

E: You establish a belief in catalepsy that can persist and resist the person's efforts to remove it.

R: You mean to actually let the patient leave the office and go about daily life with, say, a little finger cataleptic?

E: No, you let the catalepsy persist for some time in the office.

R: You have the patient test it to see how it lasts and to see that it can be a real and persisting experience even when he comes out of trance?

E: Yes, and then later you bring in an analogy with pain. You extend time by saying your catalepsy can extend 10 seconds just as it can last 11. If 11, then 12. If 12, then 14 seconds is possible. If 14, then 17 is possible. If 17, then certainly 27 seconds! You then extend that to a few minutes and eventually hours.

R: While the patient's hand is cataleptic?

E: Yes, you let him discover he can extend the catalepsy—but he can also lose his catalepsy. He can lose his pain, but he can also get it back. He can lose his catalepsy, but he can get it back. People can learn so simply to turn pain, catalepsy, or any other subjective experience on and off.

R: You give patients hypnotic training to extend in time just about any hypnotic phenomena they are skillful in experiencing. You then establish a new learning set (*dentero-learning*) for turning that subjective experience on and off. In dealing with the problem of chronic pain it would be especially useful to train the patient in whatever subjective phenomena would interfere with or transform the pain. Since most people are highly idiosyncratic in their personal psychosomatic interactions, this kind of hypnotic training for pain relief would always proceed on an exploratory basis. For some patients a hypnotic experience of warmth or coldness, numbness, pressure or itch, hallucinatory taste, smell, or whatever might be found useful in learning to displace or relieve in some way their pain. Pain relief by hypnosis is not some sort of vague magic; it is based on essentially irrational associative patterns, but it is very definitely a valid empirical process. With careful training it becomes a reliable way of cultivating and transforming all sorts of subjective experiences—including that of pain.

# Hypnotically Oriented Psychotherapy in Organic Brain Damage

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, October, 1963, 6, 92-112. This article was published simultaneously in translation in *Ceskoslovenská Psychologie*, Prague, Czechoslovakia.

Ordinarily brain damage with continued evidence of organic changes and destruction presents a seriously difficult problem for psychotherapy. In the following case history a rather detailed report is given of the use of a multitude of psychological measures, forms of instruction, direct and indirect hypnosis, and the manipulation of patterns of responsive behavior and reactions, all to effect therapeutic gains after a failure of conventional medical and surgical procedures. Considerable detail is given in presenting this case history instead of summarizing it by a simple statement of pertinent medical facts. An effort is made in this more detailed account to give the reader the "feel" of the psychological as well as the organic picture that confronted the author, both of which had a determining role in the therapy he devised.

On July 20<sup>th</sup>, 1955, this 38-year-old college-bred woman who had been a brilliant student and who had a master's degree was returning with her husband and three children from a happy vacation trip. On the way she complained of a developing headache which rapidly grew worse and led to a state of coma.

She was hospitalized, and examination disclosed fresh blood in her spinal fluid, a right hemiparesis, a severe aphasia, and an aneurysm at the division of the left internal carotid artery just before its division into the middle and anterior cerebral arteries.

Treatment was conservative until August 2<sup>nd</sup>, when her symptoms became much worse and she developed severe hyperalgesia over her entire right side, which was diagnosed as a "thalamic syndrome." She was given numerous medications to control her pain, but since she appeared to receive no benefit, surgery was employed August 8<sup>th</sup> to clamp off the common carotid artery slowly and completely. This relieved her headache and some general symptoms but left some of her right-sided hemiparesis and hyperesthesia. A month later she developed extreme pain over her right side, which was diagnosed as "central in origin—the thalamic syndrome."

She had regained her ability to walk fairly well although unsteadily, but her increased thalamic syndrome pain and the failure of analgesic medication and sedatives led in a few months to hospitalization in a well-known clinic in January, 1956.

General examination there confirmed the previous diagnosis of thalamic syndrome, disclosed numerous additional neurological findings concerning right-sided muscular and

sensory dysfunction as well as the aphasia. The recommendation was offered that no further laboratory studies or general examinations were needed for diagnostic or other purposes. The previous failure of medications was noted, and the final recommendation was made that various untried experimental drugs might be considered. The prognosis offered was most unfavorable. This was rejected by the family, and in March, 1956, at her husband's insistence and because of his wife's completely vegetative course during her illness, she was admitted to another well-known neurological institute. The findings there confirmed the persistence of considerable hemiparesis, severe aphasia, and a continuance of the right-sided hyperalgesia. As in the previous neurological studies, she was found to have normal sensations and normal muscular functioning on the left side of her body. Her thalamic syndrome of generalized right-sided continuous pain and hypersensitivity was considered to have continued as possibly unchanged. No specific recommendations were made, and her prognosis was again stated as most unfavorable.

She entered a third neurological institute in June, 1956, and underwent neurosurgery for her thalamic syndrome. Report was made to her family physician that "we interrupted the spino-thalamic and quinto-thalamic tracts on the left side and succeeded in producing a definite hemihypalgesia without side effects. This diminished the dysesthesia that she experienced on stroking the skin, while the deep diffuse spontaneous pain is still preserved." In further discussion of the patient mention was made of the frequent association of a vegetative state associated with thalamic pain, and the increase of the potentials for sensory disturbances following thalamic injury. Her prognosis was given as most unfavorable, and mention was made of a possible continued vegetative state.

Therefore, recommendation was made that the patient be discharged and subsequent treatment be instituted by X-ray irradiation of the hypothalamus in an area posterior and dorsal to the sella turcica as a possible means of decreasing her hyperalgesia and perhaps a lessening of the vegetative state.

Upon the patient's return home, it was found that she had not retained the benefit noted immediately after the operation, and the neurological institute was again queried. Explanation was given further that such an operation as had been done was often unsuccessful; they again advised X-ray treatment, and in case of failure of that, they stated that they would consider re-operation. On July 3<sup>rd</sup> the institute, in response to further inquiries about increasing symptomatology in the patient, suggested the possibility of further attempts by new trial medications. They obviously were not interested in another operation and considered the situation as hopeless.

Her family physician then sent her to a general practitioner, who noted upon physical examination a remarkable anomaly not mentioned in all previous examinations—namely, an exact anatomical midline distribution from the scalp to the perineum of the hyperalgesia of the right side of her body and of the normal sensation on the left side, in addition to her vegetative state and the obvious numerous neurological evidences of brain damage. This peculiar anatomical midline demarcation of normal and abnormal sensations he regarded as a hysterical overlay, especially when the patient nodded her

head affirmatively to the effect that the right side of her vagina and rectum were also both continuously painful.

As an outcome of his examination and recommendations the family and the family physician decided to refer the patient to the author for hypnotherapy since, in the 11 months that had already elapsed, there had occurred only a diminution of her hemiparesis and the development of a profoundly vegetative state from which the patient could be aroused only by unusual stimuli, and then only briefly, despite months of continued effort by her family and numerous friends.

The husband hopefully accepted the suggested referral, and the patient was brought to the author on July 14, 1956.

Her husband gave her history; communications sent by the family physician served to give summaries of the patient's four separate hospitalizations—the findings made, the services rendered, and the various respective recommendations suggested. He then proceeded to describe her progressive vegetative decline.

The patient entered the office somewhat unsteadily and haltingly, slumped into the chair, but now and then nodded her head vigorously when her husband stated that she really wished to get well. She presented a most discouraging appearance. Her hair was just beginning to grow out after neurosurgery, the right side of her face drooped, all right-sided movements were awkward, and she gave good evidence by her behavior and manner that she seemed to be suffering severe pain throughout the entire right side of her body. Examination disclosed that gentle touches were less well tolerated than hard slaps or deep pressure on the right side.

It was also noted that she showed marked pain reactions to any stimulus of the right side of her body from the midline of her scalp, down the face and upper chest. Her entire right leg was painful, and she nodded her head toward the right when asked if her vagina and rectum were painful. When asked if she meant only the right side of those parts, she nodded affirmatively. Closing of her eyes during tests or testing the sensation of her back and scalp did not alter the rather remarkable exact anatomical midline division of left-sided normal sensations and the hyperalgesia of the right side. A brief test also disclosed a severe alexia which had not been noted in any of the previous examinations. The history, the appearance, and the obvious physical handicaps, including her aphasia and alexia, left no doubt as to the organic nature of her illness and of actual brain damage, despite the seeming "hysterical" character of her sensory disturbances, which did not allow for the normal interdigititation of sensory nerves from one side of the body to the other.

Inquiry about her clinical course was described by the husband as characterized by brief definite interest on the part of his wife whenever discussion of the possibility of further medical study was mentioned and a hopeful attitude at each clinic, only to be followed by tears, despondency, and apparently profound disappointment each time she returned home unimproved. For several months she had endeavored laboriously to talk to her

husband and children and to participate somewhat in the home life. Sometimes it would take her 15 minutes to say haltingly "I can't talk" or "it hurts," referring to the right side of her body. Repeatedly she tried to take an interest in the visits of numerous friends, especially those of her family physician who was also a close family friend, but she seemed to find this impossible. While her paralysis had lessened greatly, she experienced much difficulty ascending or descending stairs or in stepping backward. The patient indicated that in using stairways she had to use the banister because her eyes did not seem to measure the steps correctly, and that stepping backward was a slow, laborious "thinking" process since her feet would lag behind the backward movement of her body, with a fall resulting.

Coldness and increased humidity also increased her physical distress, and her right-sided hyperalgesia as well as increasing the right-sided muscular dysfunction, sometimes severely, depending upon the degrees of cold and the humidity.

The patient's reaction to her condition at first was one of severe fright and concern. Her first hospitalization was marked by cooperation and an attitude of full confidence in her physicians and the future. The exacerbation of her symptoms that led to her second hospitalization at a nationally famous clinic was accompanied by a reaction of complete hopefulness and certainty. The recommendation there of trial medications and new drugs and the implied hopelessness of her condition resulted in a feeling of despair and, at the same time, a desperate determination to do everything possible to help herself. She did succeed in improving so far as her hemiparesis was concerned, but ascending and descending stairways, her difficulty in stepping backward, the cold winter weather in her home state, and her aphasia and alexia constituted serious obstacles. Codeine and empirin and barbiturates were progressively less effective.

She would struggle vainly and laboriously to talk to her children and husband, but her aphasia gave her so helpless a feeling that she despaired each time. Also, she did not recognize what her alexia really was. She merely felt it to be a peculiar visual impairment of blurring, although objects in general seemed to be clearly outlined.

She made numerous but futile efforts to respond to the almost daily visits of friends, but often found her attention severely distracted from them by surges of pain. There resulted a progressive withdrawal from everything. She would sleep until 10:30 A.M., then arise and take a shower despite the severe pain it caused her. (Her explanation later was that, aside from personal cleanliness, she hoped such a procedure might help her to get accustomed to her constant right-sided hyperesthesia and hyperalgesia.)

She would then eat a combination breakfast and lunch, lie down on the couch, stare at the ceiling, and smoke. At 6:00 P.M. she would arise, eat dinner, return to the couch, stare at the ceiling, smoke and now and then, but with decreasing frequency, try to talk to her husband or to listen to her children, but with less and less success.

Her third hospitalization and the possibility that neurosurgery might be done aroused her intense interest and hope, which turned rapidly into despair. At the fourth hospitalization

she had cooperated with new confidence and enthusiasm but was severely disappointed that only hemihypalgesia was secured. She looked forward to a return to the hospital for a second neurosurgical operation and further benefits, but with not too hopeful an attitude. The transiency of the improvement resulted in black despair and a feeling of hopeless frustration, a feeling that had been present for many months but now seemed to dominate her completely. She passively agreed to see the general practitioner recommended by her family physician, but even his discussion of the anatomical midline division of normal and painful sensations as a hopeful evidence of benefit from hypnotherapy did not arouse much active interest. She passively accepted the referral to the author and, upon meeting him, handed him a slip of paper reading, "Help me," very poorly, almost illegibly written.

This special, personally made plea despite the fact that her husband was with her, and the peculiar, seemingly hysterical character of her anatomical midline demarcation of her body sensations, impressed the author most favorably as hopeful indications that the patient would be cooperative in every effort at therapy, and they seemed to represent not hysterical reactions but an extensive somatic overcompensation. Such an explanation was made to her, to her husband, and written in a letter to her family physician. To give her some feeling of faith she was carefully told, with intense emphasis and much elaboration, that such a midline distribution of sensations could very well be interpreted not as hysterical but as an utterly intense compensatory effort by her body to improve and by itself to effect "normal" sensations. This rather specious explanation appeared to give her some faith and hope.

Nevertheless, the problem presented appeared far from hopeful to the author. The first hour's interview exhausted her, and she seemed to have lost interest within 15 minutes, even though her husband did the talking. There was not question of the husband's interest and intense desire to see his wife benefited, but all general understandings indicated that the question of any improvement, if at all possible, would be dependent upon the intensity and persistence of her efforts. Hence, before they left the office, a solemn vow was extracted from the patient to the effect that she would cooperate in every detail with the therapist, and she was warned that "good medicine often tastes bad" and that she would not always enjoy executing therapeutic instructions. She shrugged her shoulders and, after many futile halting attempts, finally managed to say, "I—I do—what—" and when finally asked if she meant that she would do what was asked of her, she nodded her head vigorously.

She was dismissed from the room, which she left rather unsteadily to the alarm of her husband, and certain arrangements were made with him since his business required prolonged frequent absences. These arrangements included the patient's staying with a companion who would serve as an assistant in any way the author demanded. A relative who had accompanied the patient volunteered, and the interview with her led to the conclusion that she would be an ideal person for any therapeutic plan developed.

Three days of intensive thinking of what to do with an obviously brain-damaged patient with definite residuals of a hemiparesis from a hemorrhage within the skull, a severe aphasia, an alexia, a thalamic syndrome for which the patient had undergone thalamic

surgery without recognizable benefit, a history of nearly 11 months' vegetative living in a state of frustration and despair, and an agreed-upon poor prognosis by outstanding neurological clinics led to a decision to investigate experimentally the possibilities of helping the patient by combining hypnosis, hypnotic techniques, the patient's own well-developed pattern of frustration, and the implications of Lashley's work, which, within certain wide limits, demonstrated through experiments of cortical destruction upon rats and monkeys that the loss of learning was largely dependent upon the amount of cortical destruction, rather than the location, and that the learning is carried in the form of neural patterns that in some way preserve their identity in spite of variations in sensory, motor, and cortical elements.

The results the author began achieving led later to a modified adaptation of similar but much less complicated techniques for behavioral retraining under hypnotherapy of a 70-year-old woman previously diagnosed as suffering from a circumscribed irregular arteriosclerotic condition of the brain (Erickson, 1963). In the case now being reported the rationale of the author's decision was that the patient had a well-developed pattern of frustration and despair which, properly employed, could be used constructively as a motivational force in eliciting responses with a strong and probably compelling emotional force and tone leading to actual new learnings of self-expression or possibly to a restoration of some learnings.

The plan devised was complex and involved; sometimes it varied not only from day to day but within the day itself, so that, outside of certain items, the patient never knew what to expect, and even what was done often did not seem to make much sense to her. As a result, the patient was kept in a striving, seeking, frustrated, struggling, and emotional state in which anger, bewilderment, disgust, impatience, and an intense, almost burning desire to take charge and do things in an orderly and sensible manner became overwhelming. (During the writing of this paper the patient was interested in what was being included and pointed out that many times, "I hated you horribly, you made me so furious, and the madder I got, the more I tried.")

Since the problem was clinical in nature and no conventional therapy was known, therapy had to be experimental, but since it was the patient's welfare at stake, there was no way nor attempt at evaluation of the actual usefulness and validity of any single one of the procedures employed. Recognition can only be given to the agreement of competent outstanding clinics in their evaluation of the patient's prognosis as decidedly poor—in fact, hopeless—and the actual eventual outcome of the therapy devised.

Fortunately, the patient's first companion was a highly intelligent, deeply interested, wholly cooperative person with an amazing flow of language and fluency of speech. This was seized upon as the first therapeutic approach, but without acquainting the patient with essential details or purposes.

At the first session the patient was told by the author with painful exactitude and emphasis that she was to extend herself to the very fullest extent of her physical and mental ability to listen carefully to each question the author asked her and to make every

effort to reply, however arduous she found the task to be. She nodded her head vigorously, and she was asked her husband's full name. Before she could complete the first partial efforts to frame his name with her lips, the companion, as previously instructed, replied with great rapidity with his name, age, and birthplace, all of which was gravely recorded by the author as if furnished by the patient.

Equally carefully and slowly, the patient was asked her full name, including her maiden name. Again the companion, while the patient was struggling with her mouth, gave the name, age, street address, etc. On and on this went, the author gravely and earnestly asking the patient questions, recording as if they were the patient's replies each of the companion's answers, some of which were purposely approximations or even wrong. Slowly the patient's early wonderment turned to obvious anger and infuriation, especially at the erroneous answers and misinformation.

At the end of the hour the author remarked casually to the patient, "You're as mad as a wet hen, aren't you?" in response to which the companion verbosely reassured the author that the patient was not in the least angry. The author continued, "And you really don't want to come back either, do you?" Again the companion solicitously reassured the author, while the patient, apparently in an utter fury, with trembling lips, stammered, "I prom—prom—prom—[ised]" and stalked out of the room much more steadily and easily than she had entered.

The next day, as soon as the patient, Anne, was seated, she was asked for her entire history. Immediately, the companion Jane, began a rapid-fire summary of Anne's purported personal history such as date and place of birth, schooling, teachers' names, years of attendance at college, and much family data, many of which were merely approximations or often in actual error. Anne glared at Jane in increasing anger and also at the author, who was hastily making notes and behaving as if it were Anne who was speaking. All of the time Anne's lips and mouth were struggling to reply, to make corrections, and when the hour was concluded by the author's announcement of the hour for the next appointment, Anne stalked out of the office even more steadily than she had before, only to be called back and told gravely that a daily schedule of activities had been arranged for her and that the companion's responsibility was to keep a chart on Anne's cooperativeness. Anne nodded her head vigorously and angrily, turned quickly with a single backward step, and left, still angry. She was called back, and with great intensity, after fixating her gaze rigidly upon the author's face, she was told slowly, repetitiously, that she was to be fully and completely obedient in relation to the schedule. She was then allowed to leave the office, departing at first slowly as if in a trance state and then gradually more briskly. As she turned to leave the office her appearance and manner indicated that she was in a trance. No effort was made to test her for hypnosis. The reasons for this are no more than the author's clinical experience in securing hypnotic responses from subjects without letting them know at first, lest the conscious awareness lead a patient to try to be overhelpful in the therapeutic procedures.

Much later Anne remarked to the author, "I was sent to you for hypnosis, but you never even seemed to try to use hypnosis. When I look back, though, I'm sure you must have

had me in a trance many times when I didn't know it. When I get mad at people, I stay mad—maybe for years. But it was different with you. I'd get mad, really mad, but the next day when I was still mad, something in me made me want to come back.

*Maybe* that just means you were getting through to my subconscious mind, and that was why. Did you have me in a trance a lot of times?" To this question, since she had not made all the progress the author felt to be possible, his standard evasive reply was given: "I like to help patients, but I often don't try to explain what I'm doing. The answer to your question is, you can guess any way you want to, and either way is all right with me." Such a reply closes the question without answering it, yet leaves the author free to elicit trance states or selected or isolated hypnotic phenomena without the patient's awareness of what is really occurring. Much more readily do patients look upon them as their own conscious intentional effort rather than a passive responsive act elicited by the operator. Leading the patient to "See what I [the patient] can do," is much more effective than letting the patient see what things the therapist can do with or to the patient.

Jane showed Anne a typewritten schedule, but Anne actually could not read it because of her alexia. After many vain struggles by Anne to read it, Jane read it to her several times, but with specified and different errors. Anne listened intently, and her facial expressions indicated that she recognized some of the variously read items and was annoyed. It included bedtime, shower time, meal times, swimming hours, medical appointments, etc., and, most emphatically, the declaration that whatever Jane said or did was to be obeyed scrupulously regardless of what Anne thought, understood, knew, or wanted. There were to be no exceptions of any sort.

This schedule was intended only as another means of stimulating the patient without letting her realize what was happening. Thus, in spite of the clock in full sight and the radio announcing the time as 9:00 o'clock, Jane declared it to be 10:00 P.M. and "bedtime." Anne sputtered inarticulately, and Jane read from the schedule the author's emphatic declaration that Anne was not to dispute or disobey Jane's instructions, all of which were listed on the schedule furnished Jane by the author.

At breakfast time Anne was awakened early and asked if she wanted scrambled eggs, toast, and coffee. Anne nodded her head affirmatively, then noticed that the clock indicated she was being awakened 1½ hours too soon, and pointed at the clock. It was later learned that she recognized the time of day by the position of the hands, not the clock face numerals. Jane cheerfully remarked that it was a lovely morning, and Anne furiously dressed, came angrily into the breakfast room, and was dumbfounded to find oatmeal and a lettuce salad for her, while Jane had fruit, dry cereal and coffee. Immediately after the breakfast, which Anne ate with resentment while Jane cheerfully commented on every topic that came to mind—including the author's absolute order that Anne should always clean up her plate—Jane abjectly apologized for not having told Anne to take her shower before breakfast. Cheerfully and with much light chatter she took Anne back to the bedroom and saw to it that Anne took a shower, completely ignoring all of Anne's efforts to tell Jane by sign language that she had showered, that the shower floor was wet, that the towels proved that she had showered, etc. Jane merely

chatted fluently on a wealth of topics. Jane's sense of humor and zest in following this type of instruction was extremely helpful, and she easily used her own ready ingenuity to execute the author's wishes.

At a later session Anne attempted to communicate effectively by writing a note with her left hand, which she did poorly, and handed it to the author who vainly attempted to read it upside-down and gravely handed it to Jane, who followed suit. Shrugging of shoulders and helpless looks led Anne to say "turn, turn, turn." Obediently the author and Jane turned back toward Anne with further shoulder shrugging. Anne burst into tears and said, "Turn paper round."

This was done, and the request was read "Can she take me dinner out?" It was obviously slowly, painfully, and laboriously written.

Immediately consent was given, and Anne unhesitatingly but stumblingly asked, "Breakfast lunchtoo." Ready consent was given, and Anne looked happy and triumphant. Jane had really enjoyed frustrating Anne at every meal by such measures as presenting her with a carrot instead of a banana while Jane cheerfully ate a banana herself. More and more at meals now and then Anne would explosively utter some article of food she wanted, and she was always properly rewarded in an entirely casual matter while Jane chattered endlessly on minor casual topics, always interspersing unimportant minor errors, to Anne's obvious annoyance. Thus a birthday present would be suggested for Anne's oldest child when it was the youngest child's birthday. (Incidentally, Anne was greatly underweight, but she rapidly gained weight in being obedient about cleaning up her plate.)

The request to go out for meals gave new opportunities for Anne's frustration since Jane drove the automobile. It did not take Anne long to discover the need to start to say "Right," meaning "Turn right" a block or so in advance, and shortly to say "Right" at the intersection, since Jane invariably turned the wrong direction or continued straight ahead if not instructed at the proper time.

The menus at the restaurant were another source of instruction and frustration. Since Anne could not read, Jane would order foods that she knew Anne did not like, and always the author inquired if she cleaned up her plate regularly.

Anne attempted to point out to the waitress the items she wished, but Jane stopped that by telling the waitress "Doctor's orders" and reaching for the menu. Shortly Anne began pointing out specific times on the menus, but unless she named it, Jane ordered wrongly. This led shortly to pointing and naming and the getting of some of the foods she wished. Her reading ability soon reached the point where she could read but not always name the item completely. This Jane handled by such a measure as ordering "potato salad" when Anne had pointed to "baked potato" but said only "potato." It was not long before. Anne could say "steak me medium" or otherwise make her wishes clear.

Almost from the beginning the author had taught Anne and Jane the rhyme of "Pease porridge hot, pease porridge cold" and the accompanying hand and arm movements. This game was played regularly with the patient a dozen or two times a day, with Jane reciting the rhyme at first slowly, then with increasing speed. This was done at varying times during the day, sometimes in the middle of a meal or even during a shower bath. Gradually Jane began to make the wrong movements, eliciting corrections from Anne who would spontaneously correct her by saying irritatedly "no, no," "this this" or "no, this way." Without comment Jane would make the correction, only to make other errors later. Also Jane began reciting the rhyme with variations in tempo. This occasioned considerable annoyance to Anne, who soon began to mouth partially the various words of the rhyme. As Jane noted this, she would make deliberate errors in the words, and frequently Anne would explosively utter the correct words. Often this game was made a part of the therapeutic session with the author so that her progress could be noted and further instructions could be given to Jane about errors to be made.

Direct hypnosis seemed to the author to be impossible; therefore Anne was told impressively within the first two sessions that it would not be employed. (Many months later Anne explained, "You really fooled me when you said 'no hypnosis,' that I couldn't be hypnotized. Remember, I asked you before and you just talked and didn't really answer").

Instead, Anne was told in a most painstaking, laborious way, holding her attention in a most rigid, fixed fashion, "As Jane says that rhyme ["Pease Porridge Hot" was not the only one employed; there were many others], listen carefully, hear every syllable. Give it your full attention, notice each sound, all vowels and consonants. Remember each word. Think each word. Remember each word. Think each word. Remember carefully when you were a little girl, when you first learned those rhymes. Where were you sitting or standing? Who taught you? Remember how hard, when you were a little girl, it was to get the words just right. Remember who taught you, where you stood or sat and how, when you learned the onesies and twosies, how happy you were."

The preceding is a brief but representative example of the indirect method of fixating the patient's attention, regressing her in her thinking and remembering to earlier times and situations, and literally inducing through attention-fixation a trance state and possibly some hypnotic age regression through careful use of her actual past history obtained through extensive inquiries of the husband or Jane.

Also, very early in therapy an attempt had been made to capitalize upon infantile utterances such as "goo," "da," "ma" as a measure of teaching the patient to talk. This, however, hurt her feelings and served only to emphasize her infantile helplessness in speaking. This was apparently too threatening a measure, though Anne later told of doing it when alone because she had "promised" to do as told. Also, the author was the only person who seemed to have a genuine hope for her, and she wished not only to please but also to get "even with him for his silly tricks." Thus, a peculiar state of ambivalence, of mixed dislike and liking, existed in the patient, along with a compelling, highly emotional motivation to learn.

Each such session appeared to be followed by improved performance, and Jane's enthusiasm waxed anew each time she made her report preceding each session with Anne.

Rhymes were paraphrased and were fitted into the situation to personalize them to fit Anne's past experience. Thus, mention was made in a session of a certain street address, and at a signal from the author Jane obligingly in a singsong fashion recited "Annie and Willy sitting in a tree, k-i-s-s-i-n-g." The flush on Anne's face disclosed Anne's full remembrance of that specific childhood experience, and the situation was immediately seized upon again to fixate Anne's attention, to emphasize the time, the place, the difficulties in learning childhood rhymes, and the need always to listen to every word and sound. Numerous other little, more-or-less embarrassing experiences of Anne's past were used similarly.

One morning, when Jane had prepared an atrocious breakfast for Anne, Anne pushed Jane aside and, as she walked into the office first, said, "I'm mad—at you—at her too—she helping—can't help get mad—sorry—much sorry."

Anne's facial expression indicated that she was angry, that she regretted it, that she sensed some legitimate purpose on the part of the author and wished for some kind of reassurance.

In reply, with Jane joining in at once, the following rhyme was chanted to her: "Anne is mad and we are glad and we know how to please her; A bottle of wine to make her shine and (husband's name) to squeeze her." Anne's reaction was a joyous response "He's coming, he's coming." By coincidence, her husband was coming into town that weekend, a fact known to the author, and the session was spent planning a pleasant weekend for Anne and her husband with an occasional spontaneous word or phrase from Anne suggesting other possibilities.

She was also complimented on the adequacy of her remarks and speech and told amusedly that however angry or mad she got, the worst was yet to come. Her surprising answer came unhesitatingly, "I'm game." She was beginning to realize her improvement.

Jane was then thoroughly drilled in saying the "Pease Porridge" rhyme in a halting, hesitant, and stuttering fashion.

She learned this in a phenomenally fast manner, and then Anne, who knew nothing of this special measure, was asked to recite with Jane the Pease Porridge rhyme, however hesitantly she had to do it.

Slowly the two began, Anne slowly, while Jane began to increase the tempo and then to stutter the words in a painfully annoying fashion. Anne glanced at the author, was sternly instructed to listen to Jane and to continue the joint recitation. Anne turned to Jane and her lips and face showed the ideomotor, therefore involuntary and uncontrollable, efforts

on Anne's part to correct Jane's stutter. On and on, over and over, Jane continued, with Anne's lips twitching, and finally Anne was haltingly prompting Jane throughout the whole rhyme. This particular session lasted about two hours, and Anne's speech became increasingly better. The same measure was employed with other rhymes, and Anne was obviously pleased and confident though often immensely annoyed.

At the next session Anne made the pitiful plea, "Now Jane is my best——friend——I——like her——much, very much. She——she——she does everything——you tell her. I don't want to hate her. Do——do——do——do——something else."

The author told her sternly, after fixating her attention rigidly by his manner, that he was conducting the therapy, that he would please or displease her as he felt best, but that her obvious improvement warranted a change. She was thereupon instructed to take Jane out to dinner and to put in the order for both of them, asking Jane each item she wished, and doing the ordering and she was assured that Jane would eat it, but she was warned to speak slowly, carefully, or that the situation would be reversed. Several evenings later Jane ate a dinner that was a mess, to Anne's intense merriment and the waitress's bewilderment, since both women were obviously amused and sober (e.g., mustard on lemon meringue pie!).

Interspersed with all of the above therapy was another variety of therapeutic endeavor. This was the beating of time to music, at first to slow music and then to rapid, lilting melodies, although Anne preferred either classical or dance music such as "The Blue Danube." This beating of time followed various patterns: right hand and left hand separately at intervals, then together, then alternately at every other beat; right and left hand separately at intervals, then together, then alternately at every other beat; right and left feet separately at intervals, then together, then left and right feet at alternate beats; left hand and left foot together, then alternate beats for the hand and foot similarly; then left hand and right foot jointly, then separately at alternate beats, then both hands and feet together, separately and alternately and then alternation of left hand, right foot, with right hand, left foot.

Jane was an excellent taskmaster and arbitrarily interrupted meals, showers, television and radio programs at will to ensure "enough practice to satisfy the doctor."

The final step of this measure was to have Anne beat time with the right hand on the left knee, the left hand on the right knee, each time alternating the position of the arms so that first the right arm would be in front of the left, and then vice versa.

As Anne progressed in variously beating time to music, she was instructed to hum. Jane would join in, softly singing out-of-time and off-key, to Anne's annoyance, and then, as Anne began singing the tune, Jane dropped out. In fact, Anne's only protection from Jane being out-of-time or off-key was to hum or sing the tune herself.

Family duties took Jane away, and in her place was put a shy, young, timid girl, extremely sweet and lovable, unwilling to offend and yet obviously afraid not to do exactly as instructed, and easily flustered by sharp criticism.

Anne's reaction was excellent. She liked the girl immediately, adopted at once a protective maternal role, and was constantly springing verbally to the girl's defense at the slightest threat of the author's displeasure directed to the girl.

The excellent progress Anne had made under Jane's care was not only maintained but enhanced by Anne's protective attitude toward the young girl, who was exceedingly conscientious despite her timidity and gentleness, and actually just as competent a taskmaster as was Jane.

More and more improvement occurred; Anne was taught to "relax" as a means of resting from the summer heat of Phoenix, and the girl, an excellent hypnotic subject, would posthypnotically relax with her and in rapport with Anne. Thus, Anne was exposed over and over to the hypnotic situation without ever needing to know she had been hypnotized. She was left no opportunity to wonder and to question and perhaps to doubt her own capacity to improve. Instead she had to attribute her responses and changes not to passive responses to the author and the task he assigned, but to her own efforts explained in part above.

Remembering Jane's conduct at the table, Anne was most careful to spare the young girl the distress Anne felt certain that the girl would experience in obeying the author's instructions if she patted her slice of bread to indicate she wanted the butter and being handed a stalk of celery. Also Anne soon learned that the girl, with obvious distress would reply to a patting of a slice of bread and say haltingly, "But—but—but—" would elicit the verbal response of, "Ask me not but's and I will tell you no lies," or when Anne asked for water by saying "wat—wat—wat" as she lifted her water glass would elicit from the girl a flush of embarrassment and the simple utterance, "What, when, where, and why are parts of speech." Thereby Anne readily realized the competence of Jane's reports, the author's own careful observations during therapeutic sessions, and the thoroughness of the instructions to this girl who aroused so strongly her protective maternal urges. (Incidentally, the young girl, now a mother of several children, and Anne are still the warmest of friends.)

When the author felt that Anne had gained as much as was possible from this protective maternal situation with the girl, a third companion was then secured, after a careful survey of possibilities with Anne's husband concerning friends and relatives who might be willing to serve. The woman selected by the author was oversolicitous, worried, mistrustful, very eager, in fact too earnestly eager to execute whatever instructions she had been given about Anne's daily program, though she did not like them or even understand them. These instructions were carefully limited to what Anne could do either easily or with some little effort. For example, the woman was instructed, "When Anne starts to butter a slice of bread, watch carefully, and when it is half buttered, you butter the other half, or if you see Anne reaching for her glass of water (or coffee cup or glass of

iced tea) nearly empty, you are to jump up and tell Anne, ‘You don’t need to say a thing, I’ll fill it,’ or tell Anne to cut her meat or to put lemon in her iced tea, etc.” The husband had most emphatically told this companion to obey the author’s instructions, however nonsensical they might seem, such as making Anne take a dozen shower baths in a single day or at 2 A.M. or to put the right shoe on the left foot. (This had been done repeatedly by Jane more than once just before bringing Anne to the office.) The first time this happened, Anne angrily extended her feet and pointed at her shoes. The author complimented the appearance of the style of the shoes and the low heels. She shook her head angrily, and the author very rapidly recited the well-known jingle of “goats eat oats, mares eat oats, does eat oats, and little lambs eat ivy.”

After a few moments of confusion both women recognized the jingle, but Anne unwittingly went through a mental process of sorting out words and identifying them and differentiating them from the auditory impression given by the rapid utterance.

Later, when Anne was beginning to correct somewhat her alexia, the same measure was employed somewhat differently. Slowly she was taught to recognize the words of similar jingles such as “Nation mice lender ver says knot” (Nay, shun my slender verses not) and then later to be told or to discover the words. This served not only to interest and amuse both women but to effect for Anne possibly a new ordering of her attitude toward words both written and spoken.

This companion’s oversolicitude, overeagerness, and overhelpfulness aggravated Anne intensely, and she did every possible thing to prevent being helped. Also, Anne learned to retaliate. Anne herself sought from the author a number of such jingles written out with which to annoy this companion, who seemed to lack much of a sense of humor. Yet, Anne was a sweet personality, and the general relationship between the two women was good. The companion did recognize that in some inexplicable way the author was accomplishing therapy. This companion thus aided greatly in literally compelling more effort on Anne’s part in order to escape the oversolicitous aid that served to motivate her to still greater effort. Also this companion could not comprehend what the author was attempting, and was worried and mistrustful of the author. Anne’s favorable rapport with the author literally compelled her to demonstrate to this companion that the author’s methods, however incomprehensible, were good and most helpful.

However, Anne tired of this companion, and earnestly told the author one day. “She good—do right [obeys author’s orders]—not happy job—she have go.” This was an exhausting effort at communication because it distressed Anne for two reasons: the discharge of the companion and distress at seeming to oppose the author. Her request was acceded to only after an extensive review over several hours of all the learning she had which had been frustrated by this woman, and then the author made clear to Anne some of his reasons for considering that frustration as desirable, and also why it was not previously explained to her. Additionally, many amused comments were made by the author over the woman’s lack of a sense of humor, of Anne’s half-resentful, half-amused plaguing of the woman with jingles and in other ways, and he pointed out that the woman always evened the score in some way. Anne did not realize how closely the author

checked the daily course of events with that woman and gave instructions to her to help keep the score even and not to disturb the ties of a distant relationship that existed.

Accordingly, both women were much pleased by the author's termination of her employment, since a new venture in motivating and learning processes seemed in order.

A fourth companion was then secured after intensive questioning of the husband. She was a young girl, obedient but on the whole not too interested or impressed by the various procedures and the monotonous reports and activities at the office. Anne was frequently displeased and disgruntled with her, could find no direct fault with her except her lack of enthusiastic, intelligent interest. She did repeatedly tell the author that she would be glad when she was sufficiently improved to get rid of "that girl with her mind elsewhere." There was no question of where Anne's "mind was." Anne's interest was in her improvement, and she did not like to have anybody, however conscientiously obedient, disinterested. Thus Anne was forced into a position of validating her improvement by being irked, even angered, by her companion's lack of interest and meaningless (to the companion) obedience.

A fifth companion was then secured. This was an older woman, rather absorbed in her own interests, rather "slack about doing things" as Anne complained, and who obviously regarded the author's whole procedure as bizarre, purposeless, and without meaning—even silly and ridiculous. However, care was taken to make sure that she executed her duties, and Anne particularly enjoyed the author's assignment of special bizarre tasks. She also enjoyed the older woman's general dislike of the situation and duties and took particular pride in improving even more extensively just to demonstrate to that woman that the author, whom Anne had now come to like greatly, was correct in his methods and that the companion was wrong (Anne's opinion and emotional reaction to this companion were probably more vital than the author's procedures, which were to intensify Anne's own motivation).

One particular item thought of by Anne at this time was that when she could not say a word, she would "walk around it." The author agreed and pointed out that she could count and stop at the right number when she could not give her son's age. But Anne herself devised the method, when blocked on a word—for example, *butter*—of getting up from the table and elaborately walking around in a tortuous path about the furniture in the room, sitting down and saying, "Pass the yellow stuff there," pointing to it. What Anne did not realize was that, when blocked in saying a word and then walking a tortuous path in and out and around the furniture, she was indirectly and unwittingly adding to her vocabulary and lengthening her sentences. Thus, blocked on saying *butter*, she had, in the procedure she devised, to say to herself mentally, without realizing it, "I must get up and first walk around that chair and then over the end table and past the davenport and open and close the refrigerator door and then go back to the table and say, Please pass that yellow stuff." That this is what actually did occur is not known, nor was any inquiry made. She had suffered brain damage and she was improving by nonconventional methods. Experimentally, it would have been scientific to have inquired of her, but the goal was one of therapy, not of controlled scientific experimentation.

However, a number of normal subjects were deliberately asked to do as Anne and her companion had described as the walking about the room in a random, tortuous path. This done, they were asked to relate the thinking they had done as they did so. Naturally they prefaced their explanation with, "I couldn't help wondering what your purpose was, but I decided to walk around the coffee table, and then over to the book case, and then around the throw rug and then past the radio." Anne's aphasia was a motor aphasia. Presumably her thinking processes were like those of the normal subjects. At all events, she would return to the table with some remark such as, "Pass that yellow stuff there," instead of limiting her utterances to "Butter, pass," or "yellow stuff, pass."

This particular companion was always bored by the sessions in the office, did not try to conceal the fact, and the author took advantage with Anne's half-resentful half-amused attitude toward the companion, to delight in having them go through the various "exercises" that had been assigned. Particularly did Anne enjoy the author's discounting of her inability to talk originally by the bald assertion, which the companion resented, that any little baby could say "goo" and "ga" and "da," and so could Anne. These particular exercises Anne had resented at first. They had been used sparingly in the office, though it was later learned that they had been done secretly by Anne in her apartment. But Anne enjoyed going through them with this companion, even enlarging them from meaningless syllables to baby talk, a measure Anne did deliberately and without prompting to irritate the companion for her criticisms of the author. An excellent, constructive example is, "en—ee—bah—dee," and this intentionally transformed into "anybody."

One other step that seemed to the author of importance was the institution of a measure to correct, if possible, the alexia. This the patient was almost irrationally certain could not be corrected despite the considerable progress with menus and jingles, and hence a completely indirect measure was taken. She was furnished pencils and paper and told to sign her name. It was reasoned that, since aphasia involved motor elements and visual word memory and that the alexia was a matter of visual perception, a motor skill might be employed, one that was not related as such to ability to read which is naturally followed or accompanied by reading.

She signed her name in an almost illegible fashion. She could spell her name verbally but could not identify the letters when only one letter at a time was exposed to her. She could recognize her name and her husband's nickname. She could not recognize her last name or even such a simple word as cat.

She was instructed to take a pencil in each hand and, holding the pencils in the correct writing fashion, simultaneously to write with both hands her own name. She spontaneously noted that her left hand wrote backward and was spontaneously interested in figuring out the probable individual letters in both writings, since the right and left hand writings compared fairly well because of the poor writing caused by the residuals of the hemiparesis of the right arm.

This was one special exercise the author devised which the patient delightedly modified to confound the author while still abiding by instructions. The assignments were her name, those of her family, her birthplace, and then, knowing that she was an ardent baseball fan, she was instructed to write simultaneously with both hands numerous pages filled with the statement that she hoped her favorite team would lose each game. This she did reluctantly—in fact, resentfully. Then one day she entered the office with a broad, triumphant smile with a whole handful of sheets of paper covered with remarkably improved script. Apprised by Anne's facial expression, the author accepted the sheets most carefully, with only a casual careless look. At first then disappointment, then fury showed in Anne's face, whereupon she demanded imperiously of the author, "You read them." The reply was given that the author had trouble enough reading his own script without attempting someone else's. Since her secret plan was so easily defeated, Anne furiously snatched the papers back and read freely, "I hope the X team wins. I hope other teams lose." in all, she had written and read aloud easily a dozen different statements negating the author's original demand that her team lose, etc.

She was most elated over this, and the author promptly expressed his demand that she write various uncomplimentary things in relation to persons or objects she liked. She took much pleasure in defiance of this by simultaneously writing right- and left-handedly complimentary remarks, and, with less and less halting speech, reading them. She enjoyed this defiance greatly as well as taking much pride in her improved handwriting and ability to identify individual letters and words.

A newspaper was shown her, and she was asked to read an account of her favorite baseball team. She futilely attempted to do so, whereupon the author read it aloud to her, actually paraphrasing it into a most derogatory account. She snatched the paper from the author and haltingly and imperfectly reread the article aloud correctly, half amused, half angry at the author. This measure served to convince her that she could read "if you make me real mad."

There were, of course, numerous other measures essentially variations of those already described, that were employed to prevent boredom or slackness and to keep the patient continuously alert and yet annoyed, frustrated, and at the same time hopeful and pleased by recognizable yet often not immediately realized progress.

By November 1956 she was sent home for two months, returning for further therapy in January and February. She had lost considerable ground, which she attributed to the coldness of her home state. Improvement was rapid and quickly surpassed the previous gains.

She returned home again, and her friends noted no aphasia, although the family physician noted occasional evidences. The alexia persisted, although considerably decreased. Weekly letters from her were demanded, a laborious task often written with many errors. Some of these were arbitrarily sent back with peremptory demands for corrections without the errors being marked. She resented this disdainful handling of her correspondence but invariably found the errors, corrected them, and would append the

statement, "This makes this week's letter." (One man-upmanship is a potent therapeutic force.)

Very slowly she began to read short stories to her youngest child. Currently her alexia is far from being corrected, but she can and does read some of the newspaper.

She has been exhibited to a considerable number of physicians as a former patient and has joined the author in challenging them to guess her original diagnosis. Almost all have noted that her right leg is slightly edematous and have offered a diagnosis of thrombophlebitis. On one such occasion she laughingly replied, "You're right, only you are wrong. Just listen to me try to say that word and you will know." She then attempted to say "thrombophlebitis" and laughed at the guess of "speech defect," saying, "No, aphasia," even adding "from a hemorrhage."

She still is very slightly awkward from hemiparesis residuals, experiences considerable hypersensitivity and some deep pain of the right side; and cold weather and high humidity greatly increase the deep spontaneous pain and her hemiparesis residuals. She is still taking a minimum dosage of codeine and emrin and an occasional sedative. It was she who persuaded her husband to move to Arizona, but to Tucson, not Phoenix, where the author lives. Thus she is too far away for an emergency call, but she does see the author for occasional visits at irregular intervals of one to four months. For a family physician she was referred to an internist in Tucson, for whom she developed an immediate respect and liking.

She follows a good general daily program except on unusually chilly winter days. That period of the year she is most likely to want to see the author once a month, as "insurance that I am staying all right and it is just the cold that makes things more difficult." She entertains freely, drives the family car, picnics in the mountains with her family, does the family shopping, but has a housekeeper do routine household tasks.

The specific difficulty in stepping backward had been corrected by having her learn to dance, something she had always enjoyed, and which the first two companions had enjoyed doing with her, the first companion with considerable difficulty, the second with ease, while no trouble was later experienced by the patient in dancing with her husband. Posthypnotic suggestions to the second companion ensured certain awkwardness that Anne helpfully corrected.

Her stair climbing and descending difficulty persists, but the move away from her home state permitted living in a one-level house. However, a climb of two, three, and even four or five steps is easily managed by the measure of carefully noting the number and height of the steps. A larger number necessitates actual assistance.

Cold, if intense, and high humidity, besides increasing the symptoms of her thalamic syndrome and the paralytic residuals, have the peculiar effect of decreasing her sense of taste. This was confirmed by her over- and underseasoning of foods, an item of fact discovered by her family, since she is an excellent cook. At such times she carefully

loads her plate and “cleans it up” so that she will not lose weight because of definite lack of appetite.

## **DISCUSSION**

To discuss the therapy employed and its rationale is difficult. The patient had been rendered suddenly and distressingly helpless at a most happy period of her life but without any loss of her intellectual capacities. The helplessness of her situation, the frequent surges of hope occasioned by trips to nationally famous clinics, the black and hopeless despair that followed, the meaningless, well-intentioned, obviously false and uninformed assurances by all of her friends, associates, and her relatives that “everything is coming along fine,” left her more hopeless and despairing than ever, to say nothing of her actual pain and physical difficulties. She recognized her vegetative state, felt helpless to do anything about it, and found herself facing a completely wretched future for which she could see no remedy nor any way to hope for one.

She knew that the diagnosis of “hysterical reaction of her partial hemiparesis” was wrong because she knew she did have pain explained to her as “thalamic syndrome,” but she did recognize that the general practitioner actually had made a finding he could recognize as new and different from any made by all the other physicians and that he was obviously positive that it signified hope. This had encouraged her briefly, but then all of her hopes had been dashed on previous occasions of optimism.

She had consented to see the author, was again encouraged by his interest in the peculiar midline sensory demarcation and his prompt discovery of her alexia, which he seemed to recognize understandingly, although none of the famous clinics had seemed to pay any attention to it (nor do their reports make any mention of it). Next she was, as she later explained, “fearfully and powerfully” affected by the author’s frank and open statement in her presence that she was a totally hopeless case unless she wanted, *really wanted*, to get well, that every possible opportunity would be given to her, that no effort would be made to spare her feelings at the sacrifice of her welfare, and that the case would be accepted only under an absolute promise of full cooperation despite the fact that therapy would not seem reasonable, nor even sensible nor considerate; that all reasonable, conventional things had been done to no avail for an intelligent adult now reduced to a state bordering on infantile incapacity. Therefore, she would be handled and treated accordingly without regard for her intelligence, her master’s degree, or her social background.

Therapy would be oriented about her helpless condition, and use would be made of every possible pattern of reaction and response that she had retained without regard for banal social conventions, and a demand was made that she give her solemn promise to abide by whatever therapeutic measures the author might propose. It was pointed out simply and emphatically that to date all conventional therapies had failed, that there would be no loss entailed by new measures, and that a therapy devised to meet the actual reality she represented instead of the *lost realities of the past* might conceivably serve a useful purpose. (Later the patient stated that this frank, nonreassuring offer to give help, but a

refusal to promise it, influenced her to take hope and to give and to keep her promise of cooperation despite the anger, frustration, and displeasure the author's methods occasioned. As she explained later, "It didn't make sense most of the time, but I couldn't help noticing that I was doing better. But you did make me just awful mad, and after awhile I discovered it [being angry] helped. Then I didn't mind how mad you got me. But it was awful at first."

Although it cannot be positively stated as factual, one may speculate that the treatment accomplished gains for the patient according to the following utilization of procedures:

1. Her vegetative state was corrected not by sympathetic care and attention nor by patient instruction, but was rendered intolerable by cheerful and obvious stupidity intentionally executed that refuted every intellectual understanding she possessed, and stimulated an actual desire to understand and to learn—but what to learn she did not know. Only a strong and compelling motivation was there, compelling her to seize upon anything offered. It intensified her need to avoid such unmistakably given misunderstandings of her needs, which then led to a frustration state quite different in character from the frustration of incapacity to which she had become so well accustomed. Instead, it was a frustration that compelled her to take action to avoid it by one means or another, and there was no fixed, set, or rigid pathway, nor any opportunity for passive withdrawal, by which she could escape. Each new measure employed by the author placed slightly new and different demands upon her, most of which frustrated her in some new and different way and in a fashion which was intended to lead to effort rather than to a vegetative state. In fact, "cleaning up her plate" when served weird combinations of good, nutritious foods often served to give expression to her innermost emotions of resentment, "which somehow made me feel better."

The emotions accompanying each new demand upon her were something more meaningful than useless despondency and the desperation of the past. There was a desire to retaliate, to do something, to change things, and for varied reasons—anger, amusement, bewilderment, confusion, disgust, etc. There was no one dominant emotional state causing a generalized rejection of things or a withdrawal as had derived from her despair and despondency and depression over her incapacities.

2. General knowledge indicates that verbal learning is based upon a variety of experiential processes. Consider children learning to count. They can learn by rote repetition to count to 10 accurately. Given a good sample of children and various methods employed to teach them to count by verbal instruction and, at the same time, having them touch the instructor's fingers on the nails one by one in proper sequence from one little finger to the next makes the task easier. Hearing, seeing, tactile experience and verbalization combine to facilitate the process of verbal learning. Transfer to a task of counting the fingers without touching them is then easily accomplished. Then the child can be given the task of counting the fingers with the hands turned palms up and counting in sequence from one thumb to the next but without touching the fingers. The task suddenly is more difficult for the child unless he is allowed to touch the fingers. Then the

hands can be held up, the palm of one, the back of the other, facing the child, and he counts readily .without touching the fingers.

Transfer of this learning to the counting of 10 marbles in sequence is then easy. Then place one large marble anywhere, but usually best at the end of a row of marbles, and ask the child to count them visually. The answer too frequently is “nine little marbles and a big one,” not the simple reply of 10. Then have that child count the marbles by touching each as he looks at them and counts; the answer is “10, but one is big.” Also, how does one learn to read without moving the lips? And the rhythmic person (as the author knows by personal experience and inquiries of similar persons) has intense difficulty in counting the rapid, rhythmical drumming on a table but can count more rapidly and more accurately when a few marbles are dropped from the hand to a tabletop in as rapid but nonrhythmic fashion.

Throughout therapy innumerable items and speculative ideas were kept in mind and revised at each session to fit any immediate changes in the patient’s situation and to add new or to arouse old associations to all relearnings and any new learnings.

The Pease Porridge rhyme was ideal for this: it demanded attentiveness, an anticipatory span of attention, coordination of hand, arm, and eye movements, auditory attention, an active motor set and participation; too, presumably, it would arouse some ideomotor and ideo sensory and hence involuntary speech movements, possibly, perhaps undoubtedly, including subliminal speech.

Certainly the painful stuttering so deliberately and well-thought Laboriously-done by her companion would serve to, and almost be sure to, elicit ideomotor and ideo sensory speech experiences. (Consider the overwhelming natural tendency to say words for a stutterer). These would include quite possibly, even probably, subliminal speech and affectively reinforced speech memories, particularly associated motor memories. Also, it would serve to elicit strong self-protection tendencies, a desire to get away from something unpleasing to the self—even as her speech problem was unpleasing to her and it demonstrated that there is an escape from a speech problem—an item of vital general significance.

3. The rhythmic beating of time to music and listening while beating time to lilting songs would lead to ideomotor and ideo sensory speech experience, and the peculiar and complex combinations of right- and left-sided beating of time and the constant shifting of the beating pattern from left to right and vice versa were deemed to aid in the development of new alternative neurological pathways of response to auditory stimuli. Additionally, the tendency to hum, to anticipate the next words of the song already heard many times, the tendency to join in the singing, and the frustration by the companion’s out-of-time humming and off-key singing appeared to offer a most compelling eagerness and motivation to use her vocal cords out of sheer self-protection, since she did have an excellent ear for music.

4. The patient's markedly underweight state and the authoritative demand that "she clean up her plate" served not only to correct her weight, an item she could sense and appreciate as a visible proof of her improvement, but put her into an eager state of mind of wanting to have her choice of food instead of the nutritious but unwanted selections by her companion. Her appetite, her long-established tastes in food, and her need to protect them served to motivate her desire to speak and also to read the menu so that she could be certain of having her wishes met.

5. The alexia, a distinct problem in itself, is nevertheless related closely to speech. (Watch little children's lips, even those of some adults, as they try to read silently.) Thus, the restaurant menu served the dual purpose of compelling not only speech but reading also. (As reported by Anne later, the first restaurant meal ordered for her, taking advantage of her hopeless speech condition and alexia, aroused not only her anger, but a tremendous desire for doing a turnabout on Jane, something she planned for weeks before the opportunity arose. And such a plan had to be based on actual and inclusive expectations).

Thus the diet frustration, despite her gain in weight, filled her not only with a wealth of mixed emotions but literally forced her into a position anticipative of the correction, but not so recognized, of both the alexia and the aphasia as a means to an end rather than an end in itself.

6. The selection of the first companion was a fortunate act of fate, but it suggested the use of different companions, each to call forth progressively and more assertively the various natural patterns of response that characterized Anne. The first companion by her quickness in seizing upon situations and taking advantage of them while obeying orders forced Anne from a state of frustration and black despair into a state of intense desire to frustrate the companion—hence to do and not to yield hopelessly.

The second companion was picked as a measure of evoking Anne's own deep maternal urges. She missed her family greatly, seized upon the second companion as a substitute, and to the very extent of her ability attempted to do things to prevent the author from rebuking this girl. Also, the girl was a good hypnotic subject and could be given posthypnotic suggestions creative of special situations such as the radiating joy at every success of Anne's and her eyes brimming with tears whenever she mistook Anne's helpless pointing at something instead of naming it and therefore proffering something wrong, which Anne's vigorous negative shake of her head disclosed it not to be wanted. Thus, by virtue of the girl's excellent posthypnotic amnesias, she and Anne would attribute events to situational developments which could not appear in any way to have stemmed from the author's instructions. Also Anne, in her maternalism, would have another type of aversion toward her difficulty, an aversion having its origin in its distress not to her but to someone else. Thus, a set of circumstances could be created in which Anne could take charge spontaneously and not feel that it had been arranged by the author. Anne knew full well that Jane and the author worked hand in hand, but with this girl Anne was inspired to take charge herself. Additionally, the afternoon siesta which posthypnotic suggestion made so easy for the girl served to set an almost irresistible

example leading to "joint relaxation," and Anne delighted in following the example set with the development of an intensely warm interpersonal situation in which Anne was the dominant personality, which was not hitherto the case with Anne's friends during her illness at home nor with Jane. And she is definitely a strong character.

7. The third companion served the significant purpose of compelling Anne to reject emphatically any effort at oversolicitude and to compel a determination to be as self-reliant as possible. This continued unrecognizedly the work initiated by the previous girl and compelled Anne to strengthen it.

8. The fourth girl, by virtue of her feeling of boredom and disinterest, served a most important role of compelling Anne to recognize that much was yet to be done, that much had already been accomplished, and that she herself would have to undertake the responsibility to do all that was requested and even more.

9. The fifth and last companion, absorbed in her own thoughts and troubles, with her tendency to scorn and belittle the author, was actually exceedingly helpful. She powerfully reinforced Anne's assumption of self-responsibility, placed Anne in the position of appraising and recognizing the extent of her improvement, and aroused intense emotional desires to protect the author from criticism of his methods. Thereby Anne unwittingly placed herself in the position of not only justifying and validating the methods, but the forcing of recognition by this companion that the methods were right and that she was continuing to improve.

10. The handwriting exercise in itself was an added special measure of peculiar complexity. Anne knew that she could write only illegibly, and the simultaneous right-and left-handed writing intrigued her curiosity and interest.

At first her left hand wrote more legibly than her right. This pleased her, but although she did not realize it, it also forced her unwittingly into taking a *reading attitude* toward her handwriting. Then having her write derogatory things about her baseball team gave her the golden opportunity to retaliate with much amusement against the author for all the things he had done directly or indirectly against her. By such amused execution of an assigned task, abiding by the essence of the task and yet seemingly defying the author, there was established an easy, comfortable, interpersonal give-and-take relationship between two adults rather than an impersonal physician-invalid relationship. Thus there could be a sense by the patient of sharing significantly and pleasurable in both a joint and a separate accomplishment conducive to her welfare.

As she continued the writing, she realized progressively her capacity to read more and more, and this was assumed by her to be her own spontaneous development. Thus, her faith in herself was greatly strengthened. The impersonally critical treatment of her weekly letters compelled her not only to read while writing them but to read them with searching care to *correct errors*. She enjoyed receiving letters, but cold impersonal criticism of errors noted but not marked in an otherwise friendly newsy letter, coupled with a peremptory demand reminiscent of her original promise to the author, compelled

her not only to read while writing them but to read with searching care to prevent errors. Thus, the return of her letter with a peremptory demand for corrections not indicated for her gave her a golden opportunity to retaliate by searching out the errors and then returning the corrected letter with the triumphant statement that it was the letter for the current week. And one or two occasions in which she missed errors she had made taught her to ensure her triumphant escape from a letter every week because a letter twice returned for correction was accorded no value. Moreover, Anne was strongly competitive, and her need to win was of utmost value in this manner of dealing with her letters. (She now dictates letters by tape recorder—it is more convenient since there are residuals of hemiparesis in her right arm and her alexia is far from corrected so far as writing is concerned.)

11. The recitation of childhood rhymes, little experiences from her childhood, embarrassing or semi-embarrassing incidents, served not only to awaken past memories but to reinforce all associated mechanisms of behavior and learning responses.

12. It is true that the patient's progress might be attributed simply to the increased individual attention she received. However, it is also true that she had received an immense amount of individual attention from numerous relatives, friends, and her family, all of which did not prevent the development of a vegetative state. Also, she received extensive and highly skilled nursing and medical care and attention, all to no avail. But all such care and attention had been based upon concern, sympathy, fear, worry, helpful protective attitudes and a despairing concept of her as helplessly and hopelessly invalidated, despite the diminution of her hemiparesis. Such attention was always accompanied by sympathetic and encouraging assurances in the face of obvious and unmistakable disability and therefore was patently false and expressive only of the wishes of others and an unintentional emphasis upon her invalidism. The patient's own retained intellectual capacities permitted her recognition of the falsity of the assurances and the significance of the sympathetic concern as actual expectation of a continuance of her invalidism. As was mentioned early in her medical history, she had a master's degree and possessed excellent intelligence.

The therapeutic attention devised for her and described in this report was of another character entirely. There was no fear, concern, anxiety, or sympathy offered. Instead, there was literally a peremptory demand for cooperation and the exacting of such a promise. Instead of gentleness and sympathetic consideration, there was the annoying assignment of seemingly meaningless tasks and the deliberate devising of situations which would lead to feelings of frustration accompanied by intense emotions of a motivating character rather than of hopeless despair. She was not encouraged to talk, but a situation was created that could lead to involuntary ideomotor efforts of speech and quite possibly to subliminal speech. Frustration was used deliberately to prevent despair by compelling the patient, in self-protection, to strive to secure some satisfaction of ordinary, reasonable, and legitimate desires. For example, being handed a carrot instead of a banana not only infuriated her but tremendously intensified her desire to talk and a need to reject her helplessness so that she might retaliate in kind, as indeed she later did. Yet she had not been asked to talk, which she knew she could not do. Instead, a situation

was created which, through the intensity and welter of her emotions, would impel her to seek some measure or means of meeting her wishes and needs. Neither was she asked to learn to step backward without falling. Instead, her maternal urge to protect the second companion from the author's seeming displeasure about the companion's inability to dance well was used. (A posthypnotic suggestion to the companion ensured a certain awkwardness.) Hence, stepping backward easily and readily was only an incidental and unrecognized part of her emotional relationship to that young girl.

Likewise, the simultaneous writing with her right and left hands, especially of statements offensive to her personal loyalties, could not be recognized by the patient as a form of speech corrective of alexia. To her it was a motor task, repetitious and monotonous, that inspired her to confound and defy the author finally by angrily reading aloud the exact opposite of what he had deliberately misread.

So it was with all of the other individual attentions she received. They were all deliberately and intentionally controlled and directed *toward the evoking of whatever capacities for all kinds of responses which she might have or could develop, without regard for courtesies or social niceties but only for whatever responsive behavior might be conducive to restoration of previous patterns of normal behavior*. However, the nature of her specific reactions was not and could not always be anticipated. *Her welfare* was the governing purpose of the therapy devised—not sympathy, consideration, or even common courtesy. Perhaps the best example to illustrate this was the occasion on which Anne had laboriously, slowly and with apparent distress crossed her legs in an effort to relieve her deep spontaneous pain. When she had completed this difficult task, the author amusingly chanted the old childhood rhyme, “I see London, I see France, I see somebody’s underpants.” The celerity and ease with which Anne embarrassedly uncrossed her legs with no apparent recognition of painful feelings was a startling revelation both to herself and to her companion. Later Anne recalled this incident by saying haltingly, “member—underpants—move—move leg fast—no hurt.”

Numerous other little incidents like this, conducive to strong emotions and automatic responses, unquestionably served to restore and to reinforce normal responsive patterns of behavior and to compel a confident realization of her own recovery of latent capacities of response awaiting adequate stimulation.

13. Hypnosis and hypnotic techniques, usually indirectly and unexpectedly, were frequently employed to arrest and to fixate her attention rigidly upon therapeutic ideas and understandings. By so using hypnosis, her attention was directed and controlled and possible demands for conventionally “sensible” instructions were forestalled. The liking she had developed for the author, the slow but continuing progress which she could see and sense, served with the hypnosis to prevent an intermingling in her conscious daily thinking of conscious doubts, fears, anxieties, and uncertainties with the authors’ carefully given helpful ideas. Instead, she became the author’s ally, and any questioning doubts were left to the companions.

Even now, seven years later, she feels "different" in the office, and much of her behavior is highly suggestive of a hypnotic state. (For therapeutic reasons no effort is made to test her.) However, this seemingly hypnotic behavior is absent in the waiting room, and she socializes easily and well with the author and others. Another comment in this connection is warranted. About a year ago she met the author at the Tucson airport and took him to her home for some additional therapy. However, she first acted as a hostess, displaying her home and her garden and making inquiries of a purely social character for about an hour. Then when the author remarked, "I believe you have some questions to ask me," there developed a fixed, rigid attentiveness and a seemingly unawareness of her surroundings similar to that of her behavior in the office.

14. In brief, the therapy developed to meet Anne's manifold problems may be best summarized as: (a) The devising of measures to negate her passive withdrawal and her vegetative state dominated by a sense of hopeless, helpless frustration; (b) Employment of measures, sometimes directly, sometimes indirectly, capitalizing upon her frustration and despair by employing measures which might conceivably make use of resulting strong emotional drives as a basis of evoking a great variety of response patterns and of motivating learning; (c) Arousal of motivational forces and memories that had played a part in her development from infancy to normal adulthood; and (d) Inducing and compelling an open-mindedness or mental receptiveness to new, inexplicable, curiosity-evoking ideas in settings causing the patient to look forward with hopeful anticipation and not to expend her energies in despondent despair over the past. Always and ever-changing challenging activities of the present and the future occupied her mind, and thus there existed a mental frame of reference conducive to recovery of lost learnings and the development of new learnings, possibly by new and alternative associative neural pathways.

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## **Hypnotically Oriented Psychotherapy in Organic Brain Disease: An Addendum**

Milton H. Erickson

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In the report presented in the October 1963 issue of this Journal, the fact was not specifically emphasized but is nevertheless obvious that underlying the entire procedure was the utilization of the patient's emotions. Each new measure in some manner elicited emotional reactions, attitudes, and states—sometimes pleasant, but more often of special personal displeasure—and these were employed to intensify and promote her learnings and to stimulate her to greater effort. In some degree, and progressively more and more so, she recognized this through the therapeutic course and endured it willingly, though with frequent reluctance.

At that time thought was given only to the possible effect upon the patient of any sudden catastrophic emotion in relation to family matters of illness and death, which were dealt with adequately as actual probabilities. The patient proved able to cope with this type of stress. However, there was no thought of provision for an overwhelming emotion at a catastrophe of national importance such as she experienced at the announcement of the assassination of President Kennedy. She was an ardent supporter and admirer of the late president, and the announcement of his death had a sudden and detrimental effect upon her. Within a few hours the pain of her thalamic syndrome had increased greatly; she experienced a marked sense of weakness and motor instability; within three days she lost 20 pounds and found the process of eating a laborious task, "I swallow a few bites, then something happens—my appetite—it's gone—I try to eat another bite—I get sick to stomach—try to eat another bite—lose everything. I just eat a bite or two—wait a while—try to eat another—eat all time little bit—mustn't lose weight—but lose fast—awful fast—I'm so weak—so tired—so much pain—no sleep—almost like when I came to you—I'm scared, but still I just want to lie down and give up."

She was brought to see the author after the passage of one week of progressive deterioration. After securing the history, a rapid testing for speech and reading ability was made, which showed no appreciable losses. Her motor ability and ease of walking were definitely impaired. Her right-sided hyperalgesia was severely increased.

Her interest in food, once an item of intense desire and frustration, was gone. Even slight discussion of her previously favorite foods elicited reactions of nausea.

Her previous companions during therapy were indirectly mentioned in a seemingly casual conversation without arousing interest in her, except for the mention of the second companion, the shy timid girl who had stirred her protective maternal emotions. She

otherwise showed marked indifference or an astonishing dislike, but this dislike was found to be related to the course of events in their later lives since the time that they had been her companions. (She and her husband had maintained casual contact with them). More astonishing was the change in her emotional attitude toward her husband and children. Contrary to her usual maternal concern, she showed disinterest in all except her youngest child, but even this was barely more than mild interest. Her attitude toward her husband was cold, unsympathetic, and indifferent, seriously in contrast to the vividly warm affection in which she had held him.

Her husband's spontaneous statement was most informative. It was, "You have just got to do something. I went through this once before, losing hope and faith, just watching her go downhill for almost a year. Except for being able to talk, she's just about where she was when we first brought her to you (1956). I can't go through that again, and she can't either. Now do something and do it fast. Make her eat. She tries, but she can't. Maybe you can teach her some way, but do it fast. Make her feel alive and real."

In lieu of any well-formulated or even carefully considered plans, and because the patient was rapidly becoming listless and apathetic, the husband was dismissed, and the author began an exhaustive but vivid discussion of the assassination and its possible immediate meanings and those of historical perspective. The patient's interest was slowly but effectively aroused, at first by a deliberate use of morbidness in the discussion, and then was maintained by as thoughtful and meaningful a discussion as could be offered.

Gradually a shift was made to the youngest child's interest in the same topic, and then to the question of that child's tendency toward overweight and faulty and demanding eating habits, particularly of foods with high carbohydrate content. Then, by extremely cautious indirection, the patient was slowly but intensely inspired (but this was seemingly not noticed by her) to set that child a pattern of table behavioral conduct of such tact and good example as to lead him effectively away from previous indulgence in a large portion of dessert before meat and vegetables and toward a proper approach to kinds and qualities of food. All this was done in a guarded, prolonged, and indirect fashion, and the patient finally left the office more stable physically than she had entered it. Her purposeful attitude and almost peremptory demand that her husband hurry up and get home so that she could prepare dinner for the youngest child was in marked contrast to her behavior upon arrival.

Her husband was promptly and secretly told to be matter-of-fact and noncommittal, to make neither inquiries nor suggestions.

Subsequent information disclosed that the patient had made excellent progress, her thalamic pain had again decreased to its previous low level, and there was little evidence of untoward reaction to the national tragedy. Apparently the appeal to her maternal instinct, so effective in relation to her second companion, again proved a remarkable effective measure of reviving her previous learnings and attitudes.

A month later the patient was again in good condition, although she had not yet gained back all of her weight loss. Her appetite was excellent, but it was noted by her husband that now and then she would seem to have momentary difficulty in swallowing. At such times her husband reported, "Her face gets blank, she seems to forget where she is, doesn't even seem to see us; then she seems to wake up and she doesn't know what just happened to her and keeps on eating. I suppose she just goes into a momentary trance, so none of us say a thing. But she is really doing something about the boy's eating.

"She is not upset anymore, and her pain is greatly reduced. I'd say she's back to where she was except she still lacks 10 pounds, maybe more. She is O.K."

In all, less than four continuous therapeutic hours had been spent with her.

## **DISCUSSION**

The significance of emotional trauma to individual adjustment is universally recognized. But it is noteworthy that in this particular case of the effects of organic brain damage, corrected in large part by new learnings having marked personal emotional components, the adjustment was seriously threatened by a national tragedy with strong personal emotional overtones, even though a death in her immediate family and two other serious family disasters had not caused more than normal grief.

# **Application of Implications of Lashley's Researches in a Circumscribed Arteriosclerotic Brain Condition**

Milton H. Erickson

Reprinted with permission from *Perceptual and Motor Skills*, 1963, 16, 779-780.

A 70-year-old woman had been repeatedly and separately diagnosed by several different groups of competent neurologists. The findings of each examination were essentially the same. In essence, these were to the effect that the patient was suffering from what appeared to be a peculiar circumscribed irregular arteriosclerotic condition of the brain, resulting in manifestations suggestive of Parkinson's disease which were limited to her face and which affected her speech. Her mental functioning otherwise appeared in no way to be affected. All agreed that no effective medication was known and that the condition was untreatable.

The patient reacted by becoming a dependent, inactive, rather despondent recluse, but after several years of urging by her family, she and her husband consented to attempt again to secure treatment, and she came to the author for hypnotherapy.

Examination of the patient's face disclosed: (a) tremors of the lips; (b) spasmodic, erratic movements of the entire facial musculature; (c) faulty, interrupted verbalizations; (d) athetoidlike movements of her lips and jaw.

Both the husband and his wife were assured of the organic character of her difficulty and of the dubiousness of the effectiveness of therapy except for a possible amelioration of her emotional withdrawal and despondency. They were asked to consider seriously the organic nature of her condition, her age, and the duration of her problem before requesting hypnotherapy. No promise of therapeutic benefits was given and doubt was expressed even concerning emotional benefits, but it was agreed to make an attempt.

Seeking a possible basis and rationale for treatment, the writer called to mind Lashley's research on maze learning in rats, with subsequent relearning after surgical destruction of various areas of the brain, as well as the implications of his research for the utilization of alternate neurological pathways after brain damage. The possible applications of this type of relearning led to the formulation of the following experimental proposal to which they agreed when they returned for a therapeutic session.

The proposal made was that she undergo hypnosis (a) to learn relaxation and (b) to develop motivation to ensure long-continued posthypnotic adherence to all the instructions given her. These were that three times daily, a half-hour each time, she would study her facial image in the mirror and carefully, concentratedly, and repetitiously move her chin up and down and from left to right and back to the midline. Also three

times a day, midtime between her jaw exercises, she was to make deliberately the one-syllable sounds of infantile articulations such as goo, da, etc., also for half-hour periods.

As she progressed in this task, she was to begin talking slowly to her mirror image, carefully observing and endeavoring to make correct facial movements, giving her mirror image such simple instructions as, "Now open [close] your mouth. Now move your chin to the right [left, midline]. Now smile." As soon as she learned this to her satisfaction, she was to explain to her mirror image carefully and systematically the numerous, often complicated, recipes for food which she once had greatly enjoyed preparing.

The patient was most conscientious for some months, during which she developed normal facial movements and speech and returned to her normal home and social activities. This led gradually to a progressive neglect of her daily "exercises," which had been reduced to once a day because of her complete self-confidence. Shortly she experienced a progressive and rather rapid return of her symptomatology, and she was dismayed to learn that she had forgotten her instructions. She returned for further therapy, was given the same instructions again, and within a month regained her normal facial behavior and speech. Since then she has been given "permission to skip exercises" two or three times a week. She now lives and has lived for more than a year a full normal home and social life, much more like that of an energetic 40-year-old woman than one nearly 80. Her recovery has withstood several family tragedies and a progressive slow hearing loss.

Previous to this study a similar experimental reeducative procedure was employed successfully with another patient with brain damage that is yet to be reported. Since then, there has been reported by Slater and Flores in *The American Journal of Clinical Hypnosis* (1963, 5, 248-255) a study of "Hypnosis in organic symptom removal: A temporary removal of an organic paralysis by hypnosis."

The important question raised by these reports concerns the value of hypnosis in organic disease, the need to recognize the possible potentiating of natural corrective body processes by hypnosis, and the possibility of the establishment of new learning pathways in cases of organic brain disease.

# **Experimental Hypnotherapy in a Speech Problem: A Case Report**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, 1965, 7, 358-360.

Eight years previously a woman in her mid-sixties had been diagnosed as suffering from "Parkinsonism." She had been dissatisfied with the diagnosis and had sought the opinion of a second and a third neurological clinic. She resigned herself then to the fact that all three clinics independently gave the same diagnosis and offered the same unhappy prognosis. She visited a medical library and read extensively concerning her affliction. This led to a decision to resign herself to her affliction except for one symptom, which she had been told at all three neurological clinics was "atypical" and for which there was no accounting. This symptom was a peculiar harsh, deep-tone, grating, rasping speech, which the author learned to imitate by tensing his neck and thoracic muscles and then tensing his entire abdomen as if he were trying to force air out of his lungs under great pressure while speaking. The patient was noted to behave somewhat similarly but not to the extreme degree to which the author had to resort to match the patient's speech.

She resented her speech difficulty. It was difficult; it tired her; it was unpleasant even to her ear; and she felt that such an atypical symptom could be treated. For the past eight years she had sought all manner of speech therapy to no avail. She finally read about hypnosis and sought therapy from the author.

After securing her history, noting the character of her speech and observing her intensely vigilant attitude and suspicious manner, she was informed that hypnosis was not applicable and that she was not hypnotizable. (This was correct at the time.) Verbally she expressed great regret, but her manner indicated a sense of profound relief, and her entire behavior became much more friendly and cooperative.

She was given a second appointment and a promise that consideration would be given to possible therapeutic measures.

At the next session she was told with impressive emphasis that she might be able to correct her speech if she "concentrated absolutely completely upon a course of relearning" that the author had devised. This was involved and difficult and would require the utmost of mental effort on her part. (The utter confidence and simplicity with which she was so instructed gained her full attention.)

To lay the groundwork for an experimental approach to her problem, all effort at scientific accuracy of problem description or explanation was discarded in favor of securing the patient's full cooperation. Also the author kept in mind his previous

experimental speech therapy with a woman with a localized arteriosclerotic condition of the brain (preceding article in this section). Hence, it was explained that her voice was too deep; that is, her affliction had resulted in the use of muscles deep within her body to give rise to speech. Therefore, it was proposed to create a form of speech that could be located completely above her shoulders. Over and over this explanation was repeated, in varying words and phrases, until her attention was so fixated that she developed a hypnotic trance. (New hope had made her accessible to indirect hypnosis. That such an indirect induction was employed, after her previous relief upon being told that she was not hypnotizable, was entirely legitimate. Her reason for coming to the author was for hypnotherapy despite whatever unfavorable reactions she had toward hypnosis.) Slowly the author went on to explain that this change of speech could be accomplished if she would paste on her bureau, dressing table, and full-length mirrors, typed in large letters, all the nursery rhymes she could discover that she possibly might or could have known in her childhood. Additionally she was told to paste up the alphabet as well. Then she was instructed that she was to listen intently to special explanations and instructions that the author would give her concerning how she was to perform a certain important task. This task was the assignment as a duty for her to *think and read visually* the alphabet forward letter by letter while *saying it backward* letter by letter. Thus she would be in a state of great mental strain. This mental strain would all be above her shoulders, hence her voice would be above her shoulders because all strain and effort would be primarily in her head. Similarly she was to think and read visually the rhyme of "Mary had a little lamb..." forward while repeating it all word by word backward.

She was told to sit or stand in front of her various mirrors from 20 to 30 minutes three times a day, concentrating laboriously on reading visually all the various typed material forward while she laboriously matched each visually read word or letter by softly pronouncing its corresponding place-mate in the end—to—beginning progression of her verbalizations. The reading and the verbalization were to be simultaneous. Thus, as she read the letter A she would pronounce the letter Z, and this she was to practice with such utter intensity that she would hear or see nothing else, unless absolutely important, during each practice session until she developed fluency. In order to avoid the limitations deriving from the trance state that she had unwittingly developed in the office while being given instructions, she was told that she would execute her task with conscious learning as well as with unconscious learning, every day, whether awake, dozing, sleeping, dreaming, hungering, or thirsting. In fact, she would perform her task regularly and happily in whatever mental state would serve to allow her to learn to talk normally in the ordinary course of the day's events and in all personal situations, and that she would do so even if she never in her life—past, present, or future—developed a trance and that under all circumstances whatsoever she would have a full, effective conscious and unconscious awareness of her task. (This all-comprehensive statement, despite the inclusion of the absurd reference to the past, was both reassuring to her and a posthypnotic suggestion reinforced by the emotional comfort suggested.)

She was seen for eight additional one-hour appointments to reinforce her understandings and to give her an opportunity "to practice" in the author's presence to permit further guidance if necessary, but very little was needed. There was no question about the good

quality of her trance states, though no formal induction was employed. Also, she never recognized the fact that she developed a trance each visit. These appointments were spread over a period of two months.

At the end of two months only one or two words out of ten were spoken in the former faulty fashion. The patient was highly elated, and though she moved out of the state, she kept in correspondence with the author to assure him that her problem had diminished to an almost vanishing point, although her other symptoms persisted.

### **CONCLUDING REMARKS**

The therapy devised was patterned with the experimental speech therapy study cited above in mind. It was based in part on the assumption that there could easily be large psychogenic elements in her speech problem. Even if it were completely organic in origin, over the years there had been added a strong emotional reaction to it. Therefore it was reasoned that it would be well to create a learning situation that would bypass the possible psychogenic elements. This could be done with a newly created learning situation that could then be associated with childhood learning situations involving vocalization. By an enforced alteration of a simple visual-vocal reading task, there could be effected a strong divergence of her attention from her speech problem and the learning of vocal reading associated with visual reading as difficult as that combined task had been in her early childhood.

Perhaps this is the explanation of the patient's eventual recovery of better than 90 percent of her disability. This was far beyond all original hopes. However, one experimental instance such as this constitutes proof of nothing more than that many more experimental ventures are warranted in seemingly hopeless problems that are encountered so often in medical practice.

# **Provocation as a Means of Motivating Recovery from a Cerebrovascular Accident**

Milton H. Erickson

Unpublished manuscript, circa 1965.

Karl was in his fifties, an energetic, hard-working man incapable of working for others because of his "German stubbornness," but fully competent to develop and successfully conduct his own business. Karl seldom wasted a moment; he engaged in numerous incidental projects that developed profitably, or else he spent his spare time in extensive reading of a definitely educational character, most of it at a postgraduate level. His personality was that of a "hard-headed stubborn, bullheaded German who insists on having his own way and always works hard enough so that he proves that he's right, even if he has to do things the hardest way first." He was sharp-tempered but essentially kind and most enthusiastically approving of the endeavors of others to work hard, to better themselves, and to achieve. He always had a helping hand to lend any hard-working person who wished to accomplish something, but he would never give more help than was actually needed. Self-reliance, as much as possible, was his guiding personal principle.

Then unexpectedly an unbearable calamity struck Karl, a cerebrovascular accident that paralyzed him and rendered him physically a completely helpless bed patient, capable of understanding but unable even to read or to talk. His communications were limited to head movements, most of them nothing more than an enraged shaking of his head when spoken to or questioned about his needs. As his wife explained, "Karl has always been so capable. He could do just anything, and if he couldn't, he would read up on it and then do it. He just never let himself fail in anything. He is a proud, determined man, and now he is so pitifully helpless. He feels so ashamed because we lost our savings in medical bills and our shop because he couldn't run it and I couldn't. It kills him to have me work. And he is a stubborn, impatient man. He always wants to do things right now and make them perfect. They kept him a whole year at the University on the neurological ward, trying to help him, doing a lot of things. But he was a 'teaching case,' and Karl would go half out of his mind when the medical students would come in and one after another examine him. Then they would hold clinics on him and talk about 'irreparable damage,' 'hopeless prognosis,' and talk about the parts of his brain he had lost because he can't talk and can't read, and Karl would get madder and madder and shake his head so furiously and sweat so they told me they might have to put him on the psychiatric ward. So I took him home, but I can't do much for him except massage and feed and bathe him. He has learned a little use of his one leg and arm, and he can use a cane a little, and if I practically carry him, we can get from one room to another. You saw how he got out of the car and how we came into the office. That's the best he can do." (Watching this activity had been most painful, but it did present good clear evidence of extreme physical

disability somewhat lessened by laborious, awkward, frequently useless efforts at self-help.)

All of this history and further elaborations of the above were taken in the patient's presence. As parts of the history were given, he would nod or shake his head in agreement, or shake his head in anger, perspiring freely as he did so, and he would make grunting and snorting noises expressive of bitter anger and rage when mention was made of the year's thoughtless treatment as a "hopeless teaching case" on the neurological ward (confirmed by the author's personal inquiry while lecturing there).

The purpose in seeing the author, his wife explained, was to have hypnosis employed to reeducate new neural pathways so that he could learn new ways of functioning, new ways of using his arms and legs by employing newly developed neural pathways. A family friend, a physician, had studied an article by the author on the reeducation of a patient with brain damage (Erickson, 1963) and had urged them to consult the author and have the possibilities of reeducation under hypnosis explored for Karl.

A prolonged history was taken from his wife in the patient's presence. The same questions were asked repeatedly in slightly different form. Unnecessary and pointless questions were asked. Throughout this time-consuming procedure the patient was carefully watched, chiefly by peripheral vision so that he would not realize how extensively he was being scrutinized.

Finally the author began asking repeated questions about the patient's willingness to accept help. His wife replied that there would be one serious handicap—namely, however much Karl wanted help, he would insist that it be done his way, "that man can't help bossing everything." She was asked what would happen if "a bigger boss than your husband takes over, then what will he do?" She replied that on a few occasions her husband had had to bow to greater forces than he could muster, that he did so ungraciously and resentfully, but "no matter how mad he gets when he is forced to bend under, he always sees to it that he benefits or profits in some way, and he never holds a grudge very long. He is really too sensible-minded."

The patient listened to all of this, manifesting variously agreement, impatience, resentment, even anger, and boredom. More than once his wife commented, "Look at him now. He is disgusted with all this talk. He wants to get started right now," to which remark Karl vigorously nodded his head in assent.

When the author finally concluded that he had observed the patient long enough and had evoked enough emotional responses and a sufficient number of erratic physical movements expressive of disgust, impatience, and eagerness to permit a somewhat favorable assessment of the therapeutic possibilities, the situation was cautiously outlined to her. Karl listened with mounting impatience, breathing heavily, snorting, grunting, perspiring, and making many minor spasmoidic movements with the one leg and arm over which he had gained some slight control. His wife stated in explanation, "Karl wants to start right now. He can't tolerate waiting until tomorrow for another appointment." Karl

nodded a most emphatic assent. His wife added apologetically, "I know Karl, he wants things always his own way, and he wants to start now, so I suppose you will have to cancel the rest of your patients today and work with him." To this Karl nodded an emphatic affirmation.

The author's reply was simply that, as a physician, he was in charge of the patient, and any further work would be started the next day. Karl leaned his head back and stiffened his neck and back, whereupon his wife explained, "Karl means he won't leave your office."

In reply she was told to bring Karl back at 11:00 A.M. the next morning, and then the author summoned two grown sons and instructed them to pick up Karl, to carry him outside, and to load him into the car gently but most firmly. This they did while his wife wrung her hands, sobbed, and fearfully declared that Karl would never come back. She was reassured, "Not so; that man wants absolute proof that he can be handled, and he will probably make one more test. You say nothing. Disregard everything that Karl tries to communicate to you. Do not be disturbed by anything that occurs. Let Karl seethe in his anger all he wants to. And tomorrow morning at the right time get the car and pull it up to the door on the simple assumption that Karl is going to keep his appointment. Now, dry your tears, straighten your face, talk and act cheerfully."

Karl refused to eat that evening, refused to be undressed, refused breakfast, snorted, and seemed to be in a continuous rage from the time he left the office. His wife managed to play her part until 10:00 A.M. the next morning, when she asked him if he would keep his 11:00 A.M. appointment. Karl grunted, snorted, and managed to throw his cane on the floor. Then he began perspiring, and he shook his head negatively in a furious fashion. She burst into tears and retreated into the next room. However, at 10:30, when she drove the car up to the front door, she was astounded to see Karl opening the door. In some way he had managed by the use of his cane, chairs, and furniture to work his way from the bedroom to the front door; getting him into the car as well as out of it and into the office had proved easier than she had believed to be possible.

This information was secured while Karl sat alone in the office, apparently raging because the author had left him alone in order to question his wife about the above account of his behavior.

"Well, Karl, I see that you are still mad, but the important thing is that you are here. The rest of the session I will spend merely explaining various things to you, not doing anything, just making clear to you what kind of a job we have to do, how we will have to start at it, and how you are going to take orders and obey them without question whether you like them or not."

At this point he grunted loudly and shook his head negatively in a violent fashion. "You mean, Karl, that you want to start today?"

Most vigorously he nodded his head affirmatively.

"Well, unless you change your mind rapidly, very rapidly, and decide to let me state how things are to be done, today's interview will be concluded and you can return tomorrow for the explanation I intended to give you today."

For a moment he glared angrily at the author, then resignedly and slowly he nodded assent.

An explanation was then offered that:

1. Hypnosis would be utilized only to the extent considered useful for the varied therapeutic purposes in the author's mind.
2. Hypnosis would definitely be excluded in certain relationships to be determined solely by the author.
3. Prompt and complete obedience would be imperative.
4. All judgmental assessments would be made by the author, and Karl's opinions would be disregarded completely.
5. The author's medical knowledge would govern all matters and Karl's wishes and desires would not be considered.
6. The first evidence of disobedience or hesitation in regard to the author's orders would terminate that particular session.
7. The only information desired from the patient would be the author's own observations and whatever information was requested of his wife.
8. Additional instructions would be formulated as progress was made.

The interview was then terminated by the peremptory measure of stating in a most dictatorial fashion, "Now, get up out of that chair. Stagger your way to the office door and get out of here and get to your car and give your wife's tired arms and back a little rest on the way. Get going!"

Karl's startled look was replaced by a flash of anger, followed by an expression of utterly intense effort as he proceeded, grabbing a chair, then a bookcase to haul himself to the door already opened by the author. Karl's wife came rushing to Karl's assistance but was firmly cautioned to give him only enough help to keep him from falling. Clumsily jerking, twisting, using his wife only to balance himself, Karl made his way to the outside steps, where the author's sons wordlessly picked him up and set him at the bottom of the stairs to make his own way to the car. This he did with increasing clumsiness, and by the time he reached the car he was obviously fatigued. Without a word the author's sons picked him up and placed him in the car, while the author advised his wife to go for a scenic drive so that Karl could rest enough to help her get him out of the car. She was also told that if he grunted to get her attention, she was to tell him, "The doctor says I am to tell you to shut up, so shut up."

## **TRANCE INDUCTION BY AN AUTHORITARIAN APPROACH**

The next day she related that she had to tell him to “shut up only twice” in the 24 hours that had elapsed. She also reported, “He’s improving. He let me read the newspaper. He got to the breakfast table alone. He got to the front door alone. I think he wants to tell you about it by having you ask questions so he can nod his head.”

Instead, as Karl dragged, jerked, and stumbled with a minimum of help to his seat in the office, he was told peremptorily, “Close your eyes. Lower your head toward your chest. Relax as much as you can. Listen to the clock on my desk ticking. Spend the next 15, 20, 30, 40, 50, or 60 minutes going asleep in a hypnotic sleep. Take the whole hour if you want to. I know you can do it in 15 minutes, but you can take the whole hour and the next hour tomorrow we can spend time doing what could have been done in the 45 minutes left. I’ll know when you are in a trance. All you have to do is just go to sleep listening to the clock and waiting for me to talk to you and remaining asleep while I talk to you. Get going!”

Within 15 minutes the tension of his facial muscles had altered in the characteristic hypnotic fashion, his swallowing reflex had disappeared, his respiratory rhythm had greatly changed, and he presented an acceptable appearance of a deep trance. He was told, “Now listen to me. If you are deep asleep, just nod your head gently up and down.” Five minutes later he was still perseveratively nodding his head gently in affirmation. This was taken to signify a deep trance, and the noisy dropping of a heavy paperweight on the floor did not elicit a startle reflex or any alteration in his respiratory rhythm.

From here on in the trance state I told him that I reserved the privilege of using invective whenever I pleased, but that his cure was in his hands. He was to walk more and more each day. Within three months he was walking well. On the day he walked 15 miles in the desert areas around the city, he visited me and told me about it in speech that was very clear. He reversed the anger he had had, and used it up in directing his energy into walking and all the other aspects of his rehabilitation. His wife was astonished when she heard him tell me, “I love you as a brother.”

R: How often did you see him in that three-month period?

E: Usually when he came to see me he would try to proudly tell me of his progress, but I would make disparaging remarks and accuse him of laziness and giving up too soon. He’d come back a week later and tell me how many more blocks he had walked, but I continued to be unkind in all my remarks, goading him into further effort. When he was in trance, I was very gentle and would only tell him how I was going to act when he was conscious.

R: So when he was in trance, you prepared him for your goading behavior when he was conscious. You were working on his unconscious at one level, preparing him for the motivating provocations you would later hurl at him on the conscious level. How do you explain that?

E: The man really wanted to do things. I carefully told his unconscious that his conscious mind did not yet have the new brain patterns that he needed. So I'm going to keep his conscious mind angry and resentful so he will work while you (his unconscious) help him build up more and more brain patterns. Karl was a tool-and-die maker who had his own factory. He was inventive.

R: So you utilized this inventiveness and the metaphor of making "more brain patterns" because that was particularly apt for a tool-and-die maker who was used to carefully making new "patterns."

E: Yes. Karl did well returning to his factory and supporting his family until he had a much more massive stroke 10 years later. When his wife brought him to me then, she said the stroke was so bad he could not even get mad anymore.

R: He no longer had the motivation to fuel the rehabilitation process?

E: It was unfortunate that when he went back to his factory after his initial recovery, he was even more angry and impatient. He took out some of my assumed anger and impatience and tried to drive his employees too hard. I did not know that at the time.

R: That was an unfortunate side-effect you had not counted on. You helped him live 10 more years of useful life, but his unresolved anger could have been instrumental in that final massive stroke. But we cannot know for sure; in practical clinical work we are usually handicapped by insufficient knowledge.

Do you believe the explanation you gave Karl's unconscious during the trance state was a pseudo-argument, or do you really believe his unconscious was manufacturing new brain patterns? Are new brain patterns being constructed during such rehabilitative efforts?

E: Yes. In my own experience with myself it seems to be a matter of learning to use muscles in a different way. When I was 60, I went for a physical, and the examining neurologist found that I had divided some muscles into halves, some into thirds. One-third of a muscle was realigned to pull against the outer two-thirds of itself. One-half of a muscle was pulled against the other half.

R: You believe that new brain patterns do develop in physical rehabilitation and that these can be manifested by all sorts of readaptations in muscles to recover lost functions. There is greater plasticity in both the central nervous system and our actual musculature than most of us have dared believe. You would definitely encourage more strenuous rehabilitative efforts and greater expectations for recovery?

E: Yes, Karl was told he was a hopeless case, and so was I when I had polio the first time at the age of 17.

# **Hypnotherapy with a Psychotic**

Milton H. Erickson

Unpublished manuscript, circa 1940s

Laskarri had been diagnosed on the psychiatric ward as suffering from schizophrenia of the mixed catatonic-hebephrenic type. He was moderately disturbed in his behavior; several times a day he would shout gibberish apparently at hallucinatory figures and race back and forth and around and about the dormitory beds or scramble frantically under and over them. Or in the dayroom comparable behavior might be manifested in relation to the chairs and tables. Otherwise, he merely mumbled and muttered when questioned, despite the fact that he had a college education. Another item of great interest was his alert, intelligent gaze when not disturbed emotionally. He seemed to be intently studying his fellow patients and the interpersonal relationships between patients and the nursing and medical personnel. Yet when approached directly, his interest seemed to vanish and his gaze became veiled.

## ***INDIRECT TRANCE INDUCTION***

Made curious by "this" Laskarri's behavior, the writer approached a passively obedient, rather stuporous patient and maneuvered him into a chair nearby so that Laskarri would have a full view of him. The writer then took a chair slightly to one side so that his primary view was of the stuporous patient but his secondary, somewhat sidelong glance permitted an adequate view of Laskarri. In effecting this seating arrangement the writer spoke earnestly and intensely to the unresponsive stuporous patient, but was well aware of Laskarri's intent observations. The writer then gave the stuporous patient a series of suggestions to induce attentiveness, relaxation, a state of restfulness, a state of attentive sleep, restful sleep during which one might hear, understand, wish to respond, to communicate, to tell things of interest, to need to tell one's thoughts and feelings, to express one's need to ask for help, to do so comfortably even while asleep and without fear.

Previous experimentation with the mildly stuporous patient, who tended to stand about immobile with a vacuous expression in his eyes, had disclosed that he would, if seated in a chair, loll comfortably and seemingly go to sleep. No interpersonal contact had yet been made with him, but he could be used as a suggestive example for Laskarri.

Peripheral vision and sidelong glances soon disclosed that Laskarri, as is common among normal people, was responding to the suggestions he apparently thought were addressed to the subject. Shortly Laskarri gave every appearance of being in a trance, and he manifested catalepsy upon being tested. Slowly the tempo of the hypnotic "sleep" suggestions was decreased, and there was a gradual replacement of them by increasingly urgent suggestions that sometime, somewhere, somehow, courage be found to tell a little,

just a little about what happens when you run, you twist, you turn, you crawl over, crawl under, run, twist, shout, sometime soon, somehow, must some way ... will ... must ... can ... must ... tell what happens when crawl, run, rush, shout, go over, go under.

These suggestions were repeated many times—softly, gently, insistently, urgently—and they were followed with cautious slowness, “... and head will nod, nod, nod, yes ... yes ... yes ... yes ... slowly nod yes ... slowly ... will do ... will do soon.”

Shortly Laskarri’s head nodded “yes” gently, perseveratively, and further suggestion was offered that he sleep restfully for a while, since he might want to say something that afternoon. The afternoon of that same day the writer slowly made ward rounds, finally seating himself in a chair beside Laskarri and waited patiently. Within 20 minutes Laskarri leaned over slightly and murmured, “Big Joe—you—put Joe asleep—put him asleep—different way.”

What Laskarri meant was readily recognized. Some 10 days previously Big Joe, six feet five inches tall and 275 pounds, had become increasingly restless and had announced finally, in the writer’s presence, his intention of “singing and yelling for about an hour” and then “smashing the ward and everybody in it.” There had been previous such experience with him. Immediately the writer secured a syringe with 15 grains of sterile intravenous solution of sodium amytal and took a seat in front of Big Joe’s chair.

Suspiciously Big Joe inquired if an intravenous injection was planned. He was told that none was planned, but that if he were to sing and yell for about an hour, his mouth would get dry, but the writer could squeeze a small stream into his mouth without interrupting his singing and yelling and his mouth would not get dry and sore. Big Joe nodded his head agreeably, tipped his head back, and began his bellowing. Little by little the sodium amytal was squirted into Joe’s mouth. He swallowed it as he sang and soon lapsed into sleep.

Having thus oriented the writer to his needs, Laskarri’s requests now became more personally meaningful. The writer moved his chair closer and Laskarri said, “Sleep—I dream awful dreams—you help.” Suggestions of hypnotic sleep were offered, and soon Laskarri was in a trance. He replied to questions of what he should do by answering, “Just let me sleep here in chair—awful dream—hurt—hurt.” Taking a chance, I told him, “Sit here in chair, don’t move, don’t wake up, just don’t hurt—just dream awful dream and then tell me.”

He seized my wrist, shuddered, perspired, and kept on shuddering and moaning. After some 15 minutes he aroused, stating, “My dream—I had it—I got to keep dreaming until I find out.” What it was he had to find out he could not tell. But the next day he could tell the content of the dream, and he begged for further help because he must dream until he found an answer. The content of the dream was that he was being forced, shoved, pulled, yanked, twisted, and thrown through an endless, lightless corridor crowded and filled with bramble bushes, thorny bushes, crucifixion thorns, barbed wire, jagged spikes, long, penetrating slivers of glass, swords, daggers, all manner of painful lacerating, cutting things—a journey that would come to a sudden end with the knowledge that again

he would have to traverse that painful way until he “found it.” Though approached many times, Laskarri never had revealed anything verbally to any of the hospital personnel.

# **Symptom Prescription for Expanding the Psychotic's World View**

Milton H. Erickson and Jeffrey Zeig

This paper is a portion of "Symptom Prescription and Ericksonian Principles of Hypnosis and Psychotherapy" presented by Jeffrey Zeig, Ph.D., to the 20th Annual Scientific Meeting of the American Society of Clinical Hypnosis, October 20, 1977, Atlanta, Georgia.

This example is from my initial meeting with Milton Erickson in 1973. It is the first case that Erickson discussed with me in explaining his therapeutic approach. The case description contains some of Erickson's own rationale for his technique, and is quoted directly:

E: Concerning psychotherapy, most therapists overlook a basic consideration. Man is characterized not only by mobility but by cognition and by emotion, and man defends his intellect emotionally. No two people necessarily have the same ideas, but all people will defend their ideas whether they are psychotically based or culturally based, or nationally based or personally based. When you understand how man really defends his intellectual ideas and how emotional he gets about it, you should realize that the first thing in psychotherapy is not to try to compel him to change his ideation; rather, you go along with it and change it in a gradual fashion and create situations wherein he himself willingly changes his thinking. I think my first real experiment in psychotherapy occurred in 1930. A patient in Worcester State Hospital, in Massachusetts, demanded he be locked in his room, and he spent his time anxiously and fearfully winding string around the bars of the window of the room. He knew his enemies were going to come in and kill him, and the window was the only opening. The thick iron bars seemed to him to be too weak, so he reinforced them with string. I went into the room and helped him reinforce the iron bars with string. In doing so, I discovered that there were cracks in the floor and suggested that those cracks ought to be stuffed with newspaper so that there was no possibility (of his enemies getting him), and then I discovered cracks around the door that should be stuffed with newspaper, and gradually I got him to realize that the room was only one of a number of rooms on the ward, and to accept the attendants as a part of his defense against his enemies; and then the hospital itself as a part of his defense against his enemies; and then the Board of Mental Health of Massachusetts as part, and then the police system—the governor. And then I spread it to adjoining states and finally I made the United States a part of his defense system; this enabled him to dispense with the locked door because he had so many other lines of defense. I didn't try to correct his psychotic idea that his enemies would kill him. I merely pointed out that he had an endless number of defenders. The result was: the patient was able to accept ground privileges and wander around the grounds safely. He ceased his frantic endeavors. He worked in the hospital shops and was much less of a problem.

There is a discernible pattern to Erickson's series of interventions. A comparable pattern can be seen in many of Erickson's cases (cf. Haley, 1973). This pattern can be divided into three major elements, which occur in the following sequence: (1) meeting the patient where the patient is; (2) establishing small modifications that are consistent with, and follow from, the patient's behavior and understandings; and (3) eliciting behaviors and understandings from the patient in a manner that allows the patient to initiate change. These elements are discussed below in relation to the case that Erickson describes.

Initially, Erickson meets the patient where the patient is. In an "anxious and fearful" manner the patient has demanded protection. By assisting the patient in the process of reinforcing the iron bars with string, Erickson provides protection in a manner that is consistent with the patient's frame of reference and indirectly communicates a number of powerful messages. For example, he implicitly establishes a high degree of empathic rapport. The patient is given the opportunity to experimentally understand that Erickson really realizes his dilemma. (The importance of empathy in the psychotherapeutic process has been addressed by researchers [e.g., Carkhuff & Berenson, 1967]. Such researchers have traditionally emphasized the importance of overt and verbal empathic responses on the part of the therapist.) Erickson incorporates a style of using indirection to demonstrate empathic rapport to the patient.

In assisting the patient in reinforcing the bars with string, Erickson enters the metaphor that the patient is living, thereby showing the patient that he respects the patient's integrity and behavior. There is no attempt to interpret the patient's delusion or force him to change his behavior immediately. Rather, Erickson goes along with the patient and thereby begins the therapy on the patient's level of behavior and understanding. If such an initial intervention were made in a sarcastic manner, or from a frame of reference of trying to trick the patient out of his symptom, the positive outcome would be limited. An attitude of empathy and respect on the part of the therapist is crucial to ensure successful change.

After meeting the patient at his level, Erickson makes use of the patient's psychotically based behavior to increase rapport and establish a base for future change. Erickson begins a process of making modifications (finding the cracks in the floor and door) that are in accord with the patient's view of the situation (i.e., the need to protect himself from his enemies). Erickson even seems to immerse the patient more deeply in his psychotic understandings by pointing out the other possible weaknesses in his defense (e.g., the cracks in the floor). However, this maneuver has a paradoxical effect, because by pointing out weaknesses in the patient's attempts to defend himself, Erickson becomes an undeniable defender. He then builds on this small change and subtly aids in the transfer of the protector role to other persons and institutions, until the patient himself can come to the conclusion that he is safe. Moreover, the modifications that Erickson makes seem to have the effect of reframing institutions that the patient may once have feared by emphasizing their protective nature in a manner the patient can account and realize.

The establishment of small modifications by the therapist paves the way for future understandings on the part of the patient that can be oriented in a more positive direction. It can be assumed that most patients have some desire to function in a more effective and enjoyable manner. Through the use of the small modification technique, the patient can avail himself of his desire to function more effectively.

It can further be assumed that the patient has resources in his personal history that can be used to effect change. These resources (past learnings) can be elicited by the therapist in such a way that the patient can avail himself of them. Erickson does not have to teach this patient overtly how to behave in a nonparanoid manner. Rather, he can trust that the patient has years of experience with nonparanoid behavior, and that given the right circumstances, the patient can discover that he can again behave in a nonparanoid manner. In this way the cure is elicited from within the patient.

The initial process of psychotherapy with this patient was based on meeting the patient within his frame of reference and then establishing modifications that the patient could use to establish a new level of functioning. This process is akin to a dance in which one partner begins by synchronizing his steps to the steps of his partner and then (and only then) by beginning to take the initiative and lead.

Overall, the cornerstone of the therapeutic process with this patient is built around the symptom prescriptive approach. In a manner that is basically implicit the patient is encouraged to continue symptomatic behavior until, on the basis of new understandings promoted in part by the modification provided by the therapist, the patient changes his own behavior. While some therapists might engage in such therapeutic practices in a way that is based on trickery or coercion, that is not the case here. Rather, the patient is given the opportunity to recognize and change his behavior to a more constructive and less self-defeating pattern.

## **Reference**

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# **Posthypnotic Suggestion for Ejaculatio Praecox**

Milton H. Erickson

Unpublished manuscript, circa 1930s.

A 30-year-old unmarried man sought therapy because of premature ejaculation. It had first occurred at his initial sexual experience at the age of 20. His reaction had been most unhappy, and he had then felt that it was punishment for his immorality. He felt damaged and incompetent as a result and rationalized that he would have to correct the condition before he could ever undertake marriage. He became tremendously obsessional on the subject and read everything he could find on sex, searching for some explanation of his specific problem. Additionally, he constantly sought new and different women from every strata of society, age groups, racial groups, and physical types, all to no avail. All efforts had proved futile.

Aside from his obsessional-compulsive search for sexual achievement, he had adjusted satisfactorily. He graduated from college, secured a position as a certified public accountant, and was well regarded by his associates. When asked for a complete description of his behavior in the sexual act, he declared that it was invariably the same regardless of whether his partner were an aging, drunken prostitute or an attractive, charming, well-educated young girl. He never had difficulty in securing and maintaining an erection, even after ejaculation. However, upon an attempt at insertion, ejaculation occurred first. Many times he had disregarded the premature ejaculation and engaged in active coitus, but this gave him neither pleasure nor satisfaction. Rather, he regarded it as an unpleasant effort in a "desperate" desire to achieve sexual competence. Usually he would persist in the intravaginal masturbation until ready for a second ejaculation, whereupon he would invariably and unwillingly but compulsively withdraw. He would then be unable to gain insertion until he had completed the second ejaculation externally. This would always enrage him, and he disliked making the second attempt, but he often felt compelled to do so.

Some months previously he had read this writer's experimental study on ejaculatio praecox and had promptly attempted to apply it to himself, since he did not want anybody to know about his problem. He had spent much effort in an endeavor to fantasy himself in the experimental therapeutic situation described in that study, but failed completely.

Finally, as a last resort, he sought out the writer. He expressed his willingness for therapy but stipulated that the procedure reported upon in that publication not be used, since he had proved its inefficacy to himself. Nevertheless, he declared his full willingness to leave matters in the writer's hands completely if that method were not employed. Inquiry promptly disclosed that he regarded hypnosis as permissible; his objection concerned the implantation of an artificial neurosis.

A half-dozen sessions were spent letting him expatiate in endless detail upon his innumerable but futile attempts at intercourse. Throughout each session, in an indirect, unobtrusive, but repetitious fashion, he was induced to emphasize over and over the fact that he never had difficulty in securing and maintaining an erection, until he regarded any inquiry in that direction to be as stupid as repeated inquiries about the number of feet on a biped.

### **TRANCE INDUCTION WITH POSTHYPNOTIC AMNESIA**

With this fact about his competence in relation to tumescence rigidly established in his thinking, he was hypnotized during the next two sessions. He developed a fair trance—not deep, but sufficient for therapeutic purposes in that he experienced considerable posthypnotic amnesia.

In the next therapeutic session, while in a trance state, he was questioned extensively about his current liaisons, which had not been interdicted. It was learned that he was assiduously courting a clandestine prostitute who lived on the second floor of an apartment court, in a suite above the entrance to the court. Access to her apartment was gained by walking the full length of the court, climbing a rear stairway, and then circling back on the balcony. Although the two of them had a full understanding of the intended nature of the relationship, the woman demanded a number of dinner and theater engagements before she fulfilled her "obligations," a not uncommon arrangement in his past experience and one that he liked. The suggestion was offered that, thenceforth, in visiting her, he would develop an erection immediately upon entering the court and maintain it until he left the court, either alone or in her company. This suggestion he accepted readily.

### **AN ASSOCIATIVE NETWORK OF INTERSPERSED POSTHYPNOTIC SUGGESTIONS FOR NEUROTIC PROBLEMS**

Then, for about two hours, a long rambling discussion was offered him. In it were numerous poorly organized comments about his past history, vague speculations about possible meanings and significances of various incidents, and various pleasing but essentially meaningless generalizations. However, systematically and unobtrusively interwoven into that monologue was a whole series of posthypnotic suggestions. These were given at first in random order, with confusing, vague elaborations, until the entire list had been presented. Then they were presented again, over and over, always with much interspersed, seemingly pertinent, but actually irrelevant discussion intended to distract and confuse any attempt at analysis of what was being said. Finally, these posthypnotic suggestions were presented in fairly close succession and in a progressive fashion to build up, without his awareness, certain significant ideas. The possible effectiveness of the suggestions was the primary consideration, not their actual or theoretical validity. These posthypnotic suggestions were as follows:

1. Neurotic ideas and symptoms serve a purpose for the personality.

2. Neurotic manifestations are often seemingly constant but are fundamentally inconstant, since the purposes they serve change as time passes. Circumstances change and personality needs alter.
3. Neurotic symptoms can actually reverse and resolve themselves when the need arises.
4. Correction of neurotic problems can occur as effectively by accidental and coincidental measures as by deliberate effort.
5. No neurotic can really know what will happen to his problem at a given time.
6. Replacement of a neurotic problem can occur by the development of another, and this in itself is beneficial.
7. A specific neurotic symptom such as a premature ejaculation could, without warning, be reversed into a frightening delay of ejaculation, a delay of half an hour to an hour.
8. He would really have something to worry about if that ever happened to him.
9. He really knew how to worry both consciously and *unconsciously*.
10. Such a development would undoubtedly result in a totally unexpected internal ejaculation.
11. Then he would be confronted with the *tremendous problem of accomplished sexuality, which would require constructive utilization*.
12. For the next few days or week or 10 days there would be a growing unrest in him, *presaging an impending change in him*.

The interview was closed with further vague discussion, and he was awakened with instructions to feel excessively tired and to want to go home and to sleep and to do nothing for a while—not even to think—but just to rest comfortably. He was given appointments for the next day, which was Tuesday, and for Wednesday, and Friday. On Tuesday he was seen briefly but not allowed to talk. He was told that he would be given, in return for the brevity of the interview, a very special appointment on Sunday. (The writer was well aware of his Saturday-night regularity.) The Wednesday appointment was similarly handled, with further and extensive emphasis on the Sunday appointment to the effect that he would really have to “give out” for that interview. Friday’s interview was also brief, and again emphasis was placed upon the special character of what he would have to relate on Sunday.

All of this maneuvering appeared to bewilder and confuse him. However, on Sunday morning he explained immediately and urgently that, whatever the writer had in mind for the appointment, it would have to be postponed because of certain developments he had experienced. His story was that the three previous brief interviews, or “brush-offs” as he termed them, had made him restless, unhappy, and uncertain. He had been so ill-at-ease after the Friday interview that he sought out his female associate, whom he had been seeing frequently, but with whom he had not yet had sex relations, and suggested a date for dinner and the theater. However, during the evening he had been inattentive to his companion and preoccupied. Recurrently the question “popped into” his mind of whether or not he actually could ejaculate intravaginally. Almost at once the idea would elude his mind, and he would try to remember what he had been thinking. Shortly the idea would

again "pop into" his mind, only to elude him once more. Over and over this occurred, with continued preoccupation on his part throughout the evening.

As he was returning with his companion to her apartment, he developed an erection upon entering the court. This persisted, although he was still so preoccupied with his thoughts, which he could not define to himself, that he did not contemplate sex relations.

Nevertheless, upon entering the apartment, his companion manifested such aggressive, amorous behavior that he promptly went to bed with her. Because his preoccupation still persisted, he allowed her to take an aggressive role, and his reaction to insertion was one of sudden fear that he would not be able to have an ejaculation. So absorbing was this fear that "I forgot completely all my past popping off. All I could think of was that I wanted to pop into her, and I was afraid I couldn't."

He responded to his fear by active coitus, and "for some unknown reason watching the minute hand on my wristwatch, which I never wear to bed." As the end of a half-hour approached, he became increasingly excited and, at the same time, more anxious and fearful. Then suddenly, but without noting the time until some 20 minutes later, he experienced a satisfying intravaginal ejaculation. His erection continued, and after a short rest without withdrawal, he engaged in active coitus and had a second satisfying intravaginal ejaculation. Completely satisfied, he waited for detumescence before withdrawal. They slept comfortably and the next day went for an automobile trip. That night there occurred further normal sexual activity.

Upon completing this story, the patient asked if there were any explanation of why he had become normal. Reply was given that neither he nor the writer need explain the normal, that it was infinitely more pleasurable simply to accept the normal unquestioningly as something to which everybody is entitled. (There seemed to be no good reason to permit him to break down his posthypnotic amnesia and thus perhaps vitiate his therapeutic gains.)

His relationship with the woman continued for about three months before they drifted apart. Several other liaisons were formed before he became seriously interested in marriage. At this writing he is engaged to be married, and he and his fiancée are speculating upon building a home. Following his first successful sexual experiences, he was seen professionally a few times, but with no significant communications resulting except his continued adjustment. Thereafter he was seen occasionally on a casual social basis.

# **Psychotherapy Achieved by a Reversal of the Neurotic Processes in a Case of Ejaculatio Praecox**

Milton H. Erickson

Reprinted with permission from *The American Journal of Clinical Hypnosis*, April, 1973, 15, 217-222.

This author has repeatedly stressed the importance of utilizing patients' symptoms and general patterns of behavior in psychotherapy. Such utilization renders unnecessary any effort to alter or transform symptomatology as a preliminary measure to the reeducation of patients in relation to the crucial problems confronting them in their illness. Such problems cause a distortion of their thinking, feeling, and patterns of living, thereby causing them to seek therapy. By using the patients' own patterns of response and behavior, including those of their actual illness, one may effect therapy more promptly and satisfactorily, with resistance to therapy greatly obviated and acceptance of therapy facilitated. Indeed, it often seems absurd to attempt to reeducate patients when all that may be needed may be a redirection of their endeavors, rather than a change or a correction of their behavior. Particularly so is this true when a patient has a circumscribed type of neurosis.

The fact that a patient has symptoms signifies that some kind of an effort at some psychological or physiological level is being made to alter a troublesome state of being. That patients are disturbed in their behavior means that they are distressed and that they have a desire to put forth effort to alter the situation, but that they do not direct that effort correctly. Furthermore, therapy should be a cooperative venture, the therapist contributing his skills and understandings and the patients contributing their own kind of responsiveness and their own capacities to utilize what can be proffered to aid them. Therapy is never and can never be a simple matter of the patient reacting solely in accord with how the therapist, with his own understanding of what is right and good, might expect the patient to respond. Quite otherwise, the experienced therapist makes clear to patients that responses must be in accord with their own potentialities, even though those potentialities may as yet be unrealized, misused, or misunderstood. What the therapist knows, understands, or believes about a patient is frequently limited in character and often mistaken. What he is willing to let patients discover about themselves and to use effectively is of exceedingly great therapeutic importance. The following experimental hypnotherapeutic handling of a patient's problem of extensive duration will illustrate the above discussion.

## **THE PROBLEM**

A single man, aged 38, had suffered from premature ejaculations since his first attempt at sex relations at the age of 20. This experience had frightened and humiliated him, and it

had deterred him from another attempt for several years. He then sought to resolve his doubts by a visit to a brothel, reasoning that in this way he would experience less humiliation should he again fail. And, as might be expected, he did fail. After a brief period of days he revisited the brothel, this time selecting the least attractive inmate, thinking for some unclear reason that such a choice might be helpful. This endeavor failed also.

He then resorted to casual pick-ups, sometimes on the frank basis of an explanation of his difficulty and an agreement of "no success, no pay." This procedure netted only failure despite assorted varieties of stimulation, some of which led to unpleasant brawls. Liquor was resorted to as a "calming" measure. This too proved to be useless. He finally decided that his problem derived from an overactive conscience. He sought out an eligible, attractive young woman and began a most cautious, chaste courtship. After about six months he realized that he desired to marry the girl, and he asked her for a kiss. A premature ejaculation occurred as he kissed her. Even meeting the girl thereafter resulted in the same unfortunate contretemps.

He discontinued the relationship with that girl and sought out a woman definitely his inferior socially and educationally and "began a slow careful cultivation of her so I could have relations with her. I knew she was promiscuous and that she couldn't understand what I wanted since I only bought her dinners and went to the movies with her until finally I got so sick of her I couldn't stand her. Then I tried it [meaning sex relations]. Same thing! Same old thing."

All of this enraged him and at the same time made him feel so inferior that he sought out prostitutes with great frequency, but always he failed to achieve his goal. The years went by, and he became increasingly fixated upon correcting his problem, first by his own efforts, then by medical and pseudo-medical aids. He was cystoscoped, given prostatic massage and injections of testosterone; he was furnished with various prescriptions, and he purchased many kinds of patent medicines and mechanical aids advertised in magazines. He reacted unfavorably to two physicians who advised him to seek psychiatric aid, insisting that his trouble was organic, noticeably so, and that "it certainly is not in my head."

At long last he learned through the lay press about hypnosis and reached the conclusion that hypnosis was the destined means of putting to an end his obsessive-compulsive search for therapy. He resolved "not to fumble or bumble" in this regard. He rejected lay hypnotists as unquestionably untrained in medical problems and hence charlatans because of the unqualified promises of their advertisements. Physicians consulted too often admitted to ignorance of hypnosis or denounced it, often without actual knowledge, as he realized from his "reading about hypnosis in an encyclopedia and some recent books written by medically trained men."

Eventually he sought out the author, to whom he related his story in extensive, systematic detail. Efforts to get him to abbreviate or to summarize his story were futile. He insisted on doing things his own way. He was unconcerned about how many hours it required to

give an exact, orderly history of his problem. He simply wanted “to be sure that everything is understood ... so that there can’t be any failure ... so that I know you know everything.”

This rigid, compulsive narration in minute detail of his many failures gave the author adequate time not only to appraise the patient’s obsessional-compulsive personality and behavior, but also to speculate upon possible psychotherapeutic measures. The patient’s rigidities, his compulsiveness, the fixity with which he had conducted his search for symptomatic relief, the comprehensiveness (according to his understandings) with which he pursued his goal, his perseverance in the face of all difficulties, and the absolute, fixed belief he manifested in the incurability of his disability all seemed to offer little promise of therapeutic results. When the patient finally concluded the narration of his search for hypnotherapy and his investigation of hypnosis as a possible cure, it became appallingly apparent that the patient was convinced in his own mind that, while hypnosis might readily be an effective cure for others, it was not such for him. He was beyond the pale of hope, and he was merely determined to prove this fact beyond any shadow of doubt. Then he could resignedly abandon his quest for potency and be at peace with himself.

Such was his purpose in seeking out the author and requesting that hypnosis be employed therapeutically upon him. Hypnosis would constitute, so he explained, the utmost, the final superlative method of therapy. Nevertheless, it would fail, since he was at last fully aware of his complete incompetence, and he wished only to put an end to his endless compulsive search for therapy. He felt himself unable to control his obsessive-compulsive searching for an unreachable goal. Once he had tried the ultimate in therapeutic procedures and had encountered failure, then and only then could he resign himself to his fate. This purpose was explained as elaborately as he had given his history.

It was only at this time that the author became fully aware of the nature of the problem confronting him—namely, that the patient had involved himself in an ever-increasing maze of contradictions that was governing his entire personal life.

The realization of this psychological import of the patient’s communications suggested an experimental therapeutic approach to the patient’s problems that might conceivably be effective. Such an experimental therapeutic approach would of necessity include obsessive-compulsive behavior, actual uncertainty and fear, even a complete expectation of failure. Against this expectation he would be induced to strive desperately and, in so doing, would actually achieve the success so long believed to be impossible. But there would need to be a doubting of the success and many repetitions until he could accept success as a valid reality for him.

This actually simple but seemingly most involved plan of therapy had been roughly formulated by the author by the time the patient had completed his lengthy narrative and argument. During the course of these communications the patient had been induced to disclose a great wealth of details about his present living arrangements, particularly the apartment in which he lived and where he had “tried” with so many women. A useful fact

was that it was reached by following a long outdoor board walkway, a stairway, and a long upstairs balcony walkway; there were other details, many of which were incorporated in the therapeutic plan. The author secretly paid a visit to that series of apartments to be certain of the terrain where the patient had battled so futilely.

### **THERAPEUTIC PROCEDURE**

Therapy was begun by inducing a light trance in the patient and impressing upon him, most tediously, that the "light trance" was a most important measure. Its purpose, he was told repetitiously, was to ensure that he had both a conscious and an unconscious understanding of the fact that a deep hypnotic trance would settle once and for all time whether or not he could ever succeed in sex relations. Two hours of repetition of these general ideas resulted in a deep trance, but no effort was made to give him an awareness of this fact. An amnesia, spontaneous or one indirectly suggested, was desired for therapeutic purposes.

Then, as a posthypnotic suggestion, he was told that he must, absolutely must, get a wristwatch. If at all possible, this wristwatch should have an illuminated dial and illuminated hands. Absolutely imperative was the fact that the watch should have a second hand. The second hand, it was stressed over and over, would be absolutely necessary.

A second posthypnotic suggestion was given that he must, and could, and would thenceforth sleep with a night-light at his bedside so that he could tell time to the very second at any time during the night, since he must, absolutely must, and would wear his wristwatch whenever he should happen to be in bed.

Solemn promises in relation to these demands were secured from the patient with no effort on his part to question the author's reasons for his various insistences.

It was then explained to him that he would continue his "useless inviting of girls to spend the night" with him. To this he also agreed, whereupon it was emphasized that only in this way could he find out what he "really really really would want to learn."

The next posthypnotic suggestion was presented most carefully, in a gentle yet emphatic tone of voice, commanding, without seeming to command, the patient's full attention and his full willingness to be obedient to it. This suggestion was a purportedly soundly based medical explanation of the expectable development, on an organic physiological basis, of his "total problem." This was the fact that his premature ejaculation, by virtue of body changes from aging processes, would be diametrically changed. The explanation was the following posthypnotic suggestion:

Do you know, can you possibly realize, can you genuinely understand, that medically all things, everything, even the worst of symptoms and conditions, must absolutely come to an end—but not, but not, *I must emphasize, not in the way a layman would understand?* Do you realize, do you understand, are you in any way

aware, that your premature ejaculation will end in a failure, that no matter how long your erection lasts, no matter how long and actively you engage in coitus, you will fail to have an ejaculation for 10, for 10 long, for 15 long minutes, for 20, for 25 minutes? Even more? Do you realize how desperately you will strive and strive, how desperately you will watch the minute hand and the second hand of your wristwatch, wondering, just wondering if you will fail, fail, fail to have an ejaculation at 25 minutes, at  $25\frac{1}{2}$  at 26, at  $26\frac{1}{2}$  minutes? Or will it be at  $27\frac{1}{2}$  at  $27\frac{1}{2}$  minutes—at  $27\frac{1}{2}$  at  $27\frac{1}{2}$  minutes? (this last said in tones expressive of deep relief.)

And the next morning you still will not believe, just can't believe, that you won't fail to have an ejaculation, and so you will have to discover again, to discover again, if you really really can have an ejaculation, but it won't be, it can't be, at  $27\frac{1}{2}$  minutes, nor even at 28, nor even at 29 minutes. Just the desperate hope will be in your mind that maybe, just maybe, maybe at 33 minutes, or 34, or 35 minutes the ejaculation will come. And at the time, all the time, you will watch desperately the wristwatch and strive so hard lest you fail, fail again, to ejaculate at 27 minutes, and then 33, 34, 35 minutes will seem never, just never, to be coming with an ejaculation.

And now this is what I want you to do. Find one of the girls you are used to. Walk her to your apartment. When you come to the corner at 8th, even as you turn right (all of this was said with the utmost of intensity), try so very hard to keep your mind on the conversation, but notice that you can't help counting one by one the cracks in the sidewalk until you turn into the courtway and step upon the boardwalk. With complete intensity you are to try hard, very hard to keep your mind on the conversation, but keep desperately counting the cracks, the cracks between the boards, the cracks under you (to the unsophisticated, slang often gives opportunities for double meanings), all those cracks all along the way to your apartment until it seems that you will never never never get there, and what a profound relief it will be to enter, to feel comfortable, to be at ease, to give your attention to the girl, and then, and then, to bed, but not the usual—but the answer, the real real real answer, and from the moment you enter [pause] the apartment [pause], your mind will be on your wristwatch, the watch that, as time goes by, can, at long last, bring you the answer.

Quickly now, keep all that I have said in your unconscious mind—locked up, not a syllable, not a word, not a meaning forgotten—to be kept there, used, obeyed fully, completely. You can even forget me, all about me—just obey fully—then you can remember just me and come back and tell me that the wristwatch was right when it read  $27\frac{1}{2}$  minutes and when it read 33, 34, and 35.

Arouse now, completely rested and refreshed, understanding in your unconscious mind the completeness of the task to be done." The patient aroused, seemed puzzled, and departed hurriedly.

## **THE RESULTS**

Three days later the patient telephoned to state, "I would like to see you, but I don't need an appointment. I just want to tell you that everything's all right and pay my bill."

He came at the suggested time, stated that the long, detailed account he had given the author of his problem had apparently served as some kind of mental catharsis, that he was fully competent sexually, and that he had proved it to himself repeatedly during the last three nights and mornings. Then, with considerable embarrassment he asked if it were "normal and proper" to prolong coitus "to, let us say, maybe as long as half an hour or more." He was reassured and dismissed, apparently with the hypnotic amnesia still present.

However, from time to time he arranged to meet the author "casually" to exchange a few remarks. About 18 months later he married a woman nine years younger than himself. He announced this to the author over the telephone, and then three months later he asked for an appointment. The reason was simply that he had recovered trance memories. He now had a "full understanding" of what had happened, and he stated his appreciation for the therapy. Actually he had only a general memory of the therapeutic procedure, but he was satisfied with it. He also reminisced about the number of times he "happened to be passing by" when the author came out of his home, and he speculated about the purpose of those meetings.

He explained further that he was certain he had obeyed instructions which had been given to him and that he had been profoundly elated by an ejaculation at 27½ minutes despite intense, despairing fears preceding it. The next morning he had again engaged in coitus with the same distressing fears of failing to ejaculate only to be relieved of those fears by an ejaculation at 33 minutes. He was then convinced that his problem "had reversed itself" and that it had been corrected on some organic basis. He felt a need to retest his "recovery" several times. This had finally given him full confidence in himself, and his self-confidence had never lessened.

He was asked what he thought the author's purpose had been in having him count the cracks in the sidewalk, the boardwalk, etc. His reply was, "I didn't know it then, and I didn't know until you asked me just now. You were having me look at all the useless 'cracks' under me before I entered where I succeeded." He flushed as he said this and added, "I think that answer came straight out of my subconscious mind." Seven years have passed, and the marriage has continued successfully.

## **DISCUSSION**

To analyze exactly what was done is rather simple. The patient had told his story, and note had been taken of the patterning of his behavior as was revealed by that story. Then came the problem of devising a therapeutic procedure employing symbolic language expressive of his story. It would need to encompass the same sort of labored, obsessive-compulsive, repetitious behavior, and be provocative of comparable emotions of desperation and defeat, but so organized that the culmination of his behavior would be a

success each time. At no time was he assured of therapy. He was not told that he would have the “real” answer; instead, he was told that the “real real real” answer would become known, and “real real real” is different from “real,” as any child knows.

The purpose of the wristwatch was to emphasize, as he had for years, the element of time but in an opposite way. To the wristwatch was attached the same despairing emotion pertaining to time as he had experienced in relation to his long history of failures. The author simply recognized that “failure equals failure,” so time (a wristwatch) was equated with failure (failure to ejaculate). “But all things come to an end, even failure.” Hence, at the rather peculiar time of 27½ minutes (the oddness of that specified period of time precluded any analysis and compelled rigid attention to the passage of time) the “failure” to ejaculate came to an end. This, of course, could not be a final answer, hence coitus occurred the next morning with the “end” of the “failure” to ejaculate occurring at 33, 34, or 35 minutes. Why such a time specification? Simply to lead him into a situation where he could choose his own time to ejaculate. Remember the patient’s guarded inquiry about the duration of intercourse “to, let us say, maybe as long as half an hour or more.”

What was the purpose of the hypnotic amnesia? The patient’s memories could not be erased, but his immediate awareness’s pertaining to his problem needed redirection and reorganization. By “locking his memories” in his unconscious mind there resulted an amnesia of the therapeutic suggestions and a delayed “remembering” of the therapist but nothing more. Thus, he was given a burden of unconsciously remembered ideas which he was to execute in an obsessive-compulsive, desperate endeavor to prevent the failure of the very thing that had constituted the failures of his past. But in the new time setting the “failure” constituted a success that had to be doubted and repeatedly achieved until its successfulness could be accepted as such. This is the kind of thinking which many patients do and which often serves to present an opportunity to turn or to reverse the illogic of their conceptions of themselves into new and better understandings.

# **Modesty: An Authoritarian Approach Permitting Reconditioning Via Fantasy**

Milton H. Erickson

Unpublished manuscript, circa 1950s.

An internist brought his wife in for psychotherapy and stated that he wished to give her history in her presence since he was certain that she would be unable to do so. As a preliminary, he stated that he had used hypnosis in his practice, had found it useful, but had abandoned it for no good reason except that he was more familiar with other methods. He hoped that this would not occasion offense to the author since he was certain his wife would require hypnotherapy.

In summary, the history was that his wife was exceedingly modest despite the fact that she was a registered nurse and that they had been married for 12 years. This modesty consisted of undressing for bed only after he was in bed. Then she would turn off all lights, go into the guest room in the dark, undress, put on pajamas and then a nightgown over them, and come into the bedroom in the dark:

Our sex life was terrible the first few months, and then she became reasonable. When she finally got pregnant, I had to force her to see an obstetrician, but she wouldn't go until the seventh month. She made him give her ether and he had a hard time. Now our little girl is five years old and she is beginning to notice her mother, and I don't want her to grow up and give her husband the hard time I had.

Then two years ago I demanded a showdown on this nonsense, which was a horrible mistake, only I didn't realize it. I ripped her nightie and pajamas off and made her come to bed and I wish to God I hadn't. She just went into a panic, developed tachycardia, became apneic, then had dyspnea. This was followed by a lot of hysterical behavior, and I had to sedate her. The next day she was phobic and had a compulsion to run out of the house. She would get clear to the end of the backyard before she could get control of herself. This got so bad that she couldn't do her housework. She trembled, she cried, she felt choked up, she had constant difficulty with her breathing, and all my apologies and promises did no good. She just got worse and I took her to your colleague, Dr. X [a psychiatrist]. He hospitalized her for two months for an extensive work-up. I think every consultant in town saw her for everything. She received endocrine therapy, tranquilizers, and everything went well until suggestion of returning home was made. Then there would be more tachycardia, even syncope, and apnea and dyspnea.

Finally he transferred her to the private mental hospital, and he psychoanalyzed her six hours a week for six months. Since this led nowhere, he gave her twelve electric shock treatments. She has been home a year now. At first she was just

quiet and subdued. She didn't have much to say and kept on coming to bed in the same old way. I felt like hell. During the last three months she has been getting progressively worse. I asked Dr. X what to do, and he offered to do more shock treatment. I don't like the results of that. Then I decided to consult you about hypnosis for her. Will you take her as a patient?

Throughout this narration his wife sat rigidly on her chair, now and then glancing from her husband to the author. She was obviously in a tense emotional state; she appeared badly frightened and embarrassed but in good contact with her surroundings.

Instead of answering her husband, the author asked her if he had given a correct history. She nodded her head and uttered a tremulous "Yes." In reply the author added, "That is, as correct as possible, since he could not really tell how scared you were and still are." To this she nodded her head affirmatively with vigor.

She was immediately asked, "Do you want to be my patient? Remember, I don't use electric shock and I might use hypnosis if I felt it would help."

Resolutely she answered, "Yes, I want help from you—no electric shock, no hormone shots. Just help me stop being so scared." The rest of the interview was spent in securing additional details of history, indirectly confirming the fact that they were in love with each other, and also in endeavoring to encourage the patient to speak more freely. Any questions directed toward the original excessive modesty elicited profound embarrassment and apparently a hysterical apnea. A tentative diagnosis was reached—psychoneurosis of a mixed hysterical and conversion type. This diagnosis satisfied the husband and pleased the patient, who obviously feared, as she later confirmed, that she might be suffering from schizophrenia, a diagnosis that had been more or less broadly hinted at in the private mental hospital.

At the next interview, with her husband in the office with her, she tearfully pleaded that she be hypnotized at once. Both she and her husband stated that he had worked with her as a subject when he was developing his knowledge of techniques, but that, at best, she had been a light trance subject.

### **TRANCE INDUCTION UTILIZING RHYTHMIC EXPERIENCE**

The intensity of her pleas and the pleading look upon her husband's face suggested the possibility of a *corrective emotional experience* (Erickson & Rossi, 1979) by means of hypnosis. As a possible clue to a method of approach she was asked, among other things, if she had ever done any painting or sketching, and had she ever seen or done any ballet dancing. Her answers were puzzled affirmations, and it was also learned that she was a fair pianist. She had also practiced ballet, had done much landscape sketching, and had painted portraits from memory, but all of this was previous to the birth of her child, her one and only pregnancy.

She was then asked to keep in mind some rhythms that she liked and to demonstrate one of them by beating time to it with her upraised hand. At the same time she was to recall her husband's most successful trance induction with her and, as she recalled it, to develop a comparable and then a progressively deeper trance until she could actually hear the music to which she had danced. She responded cooperatively, and shortly gave evidence of a deep trance, beating time with her feet and rocking back and forth in her chair in a childishly pleased and happy fashion.

### ***UTILIZING OBSESSIVE COMPULSIVE PERSONALITY TRENDS FOR FACILITATING HYPNOTIC SUGGESTION***

She was asked to listen to the examiner, and she was reminded that she came to receive therapy. Immediately a look of mingled despair and hope came over her face, and she asked, "Can you help me?"

"Only so much as you let me" was the reply, to which was added, "Very slowly I want you, still remaining in a deep trance, to feel completely unable to arouse from the trance, completely unable to do anything except what I tell you, and unable to forget that your husband is here all the time even though you cannot see him. Now there are many things I want you to do, and every one you must do without fail. You won't like to do those things, but such refusal will make it necessary for you to do something you will dislike much more."

"You will have no choice. You came for therapy, you want therapy, you will be offered therapy, and if you try to refuse it and to turn away, you will be confronted with therapy you will like even less. No matter where you turn, you will be confronted on all sides. I suggest that you endure helplessly the therapy that will be presented, because the therapy will be presented as gently as possible. I will only get rough if you try to avoid it." The purpose of this wording was to utilize the possible compulsive and obsessional elements in her behavior and to capitalize upon her long-established method of reacting as if she were behaving under duress.

In elaborating a therapeutic plan for her, the author kept fully in mind the utter childishness of her neurotic behavior that had persisted after a successful pregnancy and despite a reasonably good sexual adjustment. Reflection on the behavior she manifested suggested the possibility of an approach based upon some measure that would be equally childish and absurd, that would relate to her behavior in some contradictory fashion by being uncensored and uninhibited, and would contain in some reverse form the very behavior she had manifested over the years. In this approach there would have to be elements of impulsiveness and compulsive-obsessional coloring of a rather simple, childish, somewhat morbid character. A rather thinly disguised sexual theme seemed appropriate. A fortunate, highly neurotic sexual fantasy of another patient, along with cognizance of the capacity of the average person to be extremely childish, untrammeled, and unguarded in fantasies, finally permitted the formulation of a suitable fantasy for this patient. This could then be imposed upon her in the trance state and play upon the

patient's own patterns of impulsive, and perhaps actually compulsive and obsessional, somewhat morbid patterns that had become habitual for her.

Not much time or effort was required by the author to organize the plan of procedure mentally while he watched the patient continue in the trance and to beat time to the hallucinatory music. Within a relatively brief time, which served to let the patient become more deeply absorbed in the hypnotic state, the author was ready. Accordingly, in a rather authoritative fashion he addressed her:

### **HALLUCINATORY EXPERIENCE TO REHEARSE THERAPEUTIC CHANGE**

Now listen to me. These are the things you must do. Do them you must, and without fail. Item No. 1 is to open your eyes very slowly, to look at me, to see only me, to know that your husband is here, but you are to be unable to see him. Item No. 2 is that you are to see whatever I tell you to see and to know that you do not know where you are, only that you are sitting somewhere in a room seeing nothing but me, hearing nothing but me.

Now, perform these two tasks. [Slowly her eyes opened, her pupils were widely dilated, and she stared unblinkingly at the author.] Look slowly about you, seeing nothing, hearing nothing except me and an empty room. [Slowly she turned her head from side to side, then looked at the author.]

Item No. 3 is very nice. With your eyes wide open, experience a feeling of profound relaxation and restfulness, a feeling as if you could not move or tense a muscle or breathe faster no matter how hard you tried otherwise. Just feel hopelessly, completely caught in a state of utterly profound, restful relaxation, completely unable to change your restful physical state *no matter how much* you try. And enjoy that feeling of *utterly helpless comfort as long as you can*, because something will happen that will make you mentally want desperately to shake off that warm, comfortable, relaxed feeling. But you will be so completely helpless and comfortable physically and utterly unable to do anything physically, and you will be so horrified mentally that you can derive comfort only from knowing mentally that your husband is here, even though you can't see him. You will be desperately glad he is here. Do you understand?" [She slowly nodded affirmatively with a pleased but puzzled look on her face and a somewhat hesitant character to the nodding of her head.]

Item No. 4 is to see before you a large mirror in which you can see both of us. Right? Now that you see it plainly, I am turning it until you see nothing in it except a small part of a vacant room and a door that looks vaguely familiar in a most peculiar way—just how, you can't imagine. From now on you will breathe deeply, comfortably, with slow regularity, 12 to 14 times a minute, and there is nothing you can do about that except to continue the same slow, deep respiration

comfortably. You cannot move, you cannot close your eyes, you will just look and look and look!

Now you can lean gently, comfortably forward, but that is all, with a peculiar feeling that you know that door, that that door is going to open, that you don't want it to open, but it opens slowly, wide and wider—you can see your face—your own face—Look at that unexpected mischievous smile on your face—on your face—you wonder—you wonder—you have a peculiar impending feeling that something, something, is going to happen, that mischievous smile is getting broader and plainer—Why?—Now you see it fully, you just can't take your eyes off it, you can't close your eyes—you have a grateful feeling for some peculiar reason that the mirror is turned so I can't look in it because—because—look—look behind your face until you see your whole head, and now you can't believe it—you just can't—your neck and shoulders are bare, your chest is uncovered, your body is naked, you are standing there horribly in the nude, you feel so paralyzed in such a peculiar, comfortable way, it's so horrible mentally—you can't stop looking—looking! And watch—watch carefully—you are beginning to dance—ballet dancing—with a wild wild rhythm of joyous abandonment. And what is that? Kicking high, you stand frozen there on one foot, slowly turning your head to see—to see what—somebody is coming—somebody is coming—you can't move—you cannot even stop that mischievous smile—it's frozen—someone coming—sounds like a man. Slowly the mirror turns—slowly the man comes into view—it is your husband and he is laughing—he is clapping his hands—he likes your dance—you become unfrozen and you dance and dance with wilder abandon until you collapse in utter exhaustion and your husband picks you up—for what—the mirror vanishes—just the room is left. Now watch—watch—watch! Watch it all happening just as I described. You can hear my words as each thing happens. See it again—completely.

The patient sat rigidly immobile; only the rapid movement of her eyeballs and the shallow, irregular breathing of an intensely excited person betrayed what she might be visualizing. Suddenly she closed her eyes, slumped in the chair, and smiled, saying as if to herself, "I'm so tired."

She was instructed to rest fully, and that shortly, fully rested, she would sit up and indicate her willingness to listen. Within three minutes she straightened up in the chair, slowly opened her eyes, and stared unblinkingly at the author.

A rapid summary was given of what had occurred, and she was asked if she had watched fully, completely the whole time and had seen everything—everything." With a burning blush she nodded her head to indicate that she had obeyed.

Carefully, in a manner of utter authority, she was told, "You have done well. Now you will repeat that whole task until you have done it five times from beginning to end—see every single part of the entire tableau, collapsing so comfortably at each termination, resting fully for what seems a long time, then going on to the next repetition until all five

times have been completed. You know now that you must do as I say because you can only guess what I would have you see if you tried to refuse to do this task." Slowly she nodded her head and proceeded to behave as if obeying. Thereupon she was told:

There remains now a most important thing that you are surely going to do, are you not? Item No. 5 is that after you awaken, you will have a total amnesia for all of this that has occurred today in your trance. Today is Tuesday. Then comes Wednesday and Thursday with no memories at all, but you will have some peculiar, indescribable feelings. A feeling that you are going to do something! You will catch a glimpse of yourself in the hall mirror [penciled notes to the husband elicited special items of information], in the sideboard mirror. You will catch a glimpse of a haunting, mischievous smile, but you won't know what it is. You will feel like a tantalized, happy little girl, but horribly thrilled, vaguely certain, awful certain that *something is going to happen that you don't want to happen because you want it to happen*. But what? It will be so tantalizingly close to your mind that you will almost feel that you can reach out and grab it. And every time you walk past a mirror, just as you stop looking in it, you will get a tantalizing half-glimpse of a mischievous smile, only you won't be able to recognize it. You will just half-see it.

And Friday afternoon you won't understand why you are letting your little girl go to visit and stay overnight with the children of your friend. But no sooner has she left than you draw every shade in the house, you draw all the drapes. You will wonder why, why, why!

You will prepare, for no good reason, the best meal you ever cooked, but you will know there is no special occasion, or is there? There will be so many odd, unexpected, intriguing little things happen—interesting, yet they won't seem to have any meaning. The nearer the time comes for your husband's return from the office the more happily alert you will get. And yet such feelings!

You will eat dinner—you will enjoy it—dishwashing will be so easy—so different—never like that before. Why? What next? All evening you will be happily up and down—you will look in every mirror—just a hint of a glimpse. Oh, I just don't know all the simple little ordinary good things you will do, every one of which will seem to bring closer something fascinating, horribly, laughably devilish. You will almost itch all over with wonderment. [The use of the *itch* was entirely fortuitous, an item of fact that will be clarified in its pertinence later.]

Your husband will go to bed early. Subdued, slowly, confused, dully, hopelessly puzzled, you will get ready for bed in the same old way. Something will seem bewilderingly wrong! You will turn on the light. That's not really your regular nightgown—it's ready for the rag bag—those pajamas—an old cast-off pair of your husband's. Appalled, you stand—a sudden impulse—an awful impulse—with a giggle you tear them off—you bound out into the hallway, you snap on the light, you dash into the bedroom, you turn on the light, and you do a rapturous

dance in the nude while your husband sits helplessly in bed and watches until—until—. Now that is what will happen and you won't even guess what happened to make you do all that until I think you should know. And now, you know you will do it, do you not?—She nodded her head slowly, perseveratively.

## **THE RESULTS**

The following Monday her husband reported to the author, “As I listened to you last Tuesday, I didn’t know whether to be shocked, horrified, appalled, pleased, or just plain mad at you. What you were saying to her seemed like a crazy, madcap, childish daydream, and I didn’t know whether I ought to take my wife home and get another psychiatrist or what. But all of a sudden I kept feeling that I could see that mirror, and that jarred my eyeteeth. Then again I tried to look in it, and when I caught myself straining to do that, I thought I better leave matters in your hands. I knew I couldn’t understand.

“We got back home all right. She was silent, sort of wrapped up in her thoughts. One thing that made me sit up and listen was that every time she got near the piano, she’d play a few snatches of dance tunes. Then she played a piece of classical music for me to hear that evening as she often does, and she threw in scattered bits of dance music. It was weird. I’ll swear she didn’t know it. Bedtime, same old thing. I said nothing, as you indicated to me.

“Wednesday morning, Thursday morning, I saw her ducking her head at first one mirror and then another. I don’t know what happened during the day, but I guess she was too busy to have symptoms. She said she was trying to clean out the storeroom, but I noticed a lot of sheet music that we brought from her home when we were first married. And every time she passed the piano, she would ripple her fingers down the keys. And she kept having a puzzled look. There was more classical music, some of her favorites with a lot of little pieces of dance music dropped in. Bedtime, the same.

“Friday noon she called me to tell me Jenny could go to visit with Martha’s kids overnight.

“That dinner was wonderful, drapes drawn, candlelight, romantic as could be. She kept turning her head from side to side as if she had heard someone or expected someone. It was funny the way she kept looking at her reflection in the silverware. Half the time she had the most entrancing smile on her face, but every time she looked in a mirror, it would vanish. I could scarcely control myself. She didn’t talk much at all. Just silent and absorbed.

“Bedtime, I looked in the guest room. Where she dug them up I don’t know, but she hoards dust rags. Then I sneaked into our bedroom. “Everything happened on schedule. It was literally a honeymoon. Saturday morning I called Martha and told her to keep Jenny until Monday morning. Enough said.

“No symptoms, yet. Where do we go from here?”

“Come in tomorrow; that is Tuesday. I’ll take over then.”

The next day, as reported by the husband, the patient rebelled at the proposal that she accompany her husband to the author’s office. However, after much insistent persuasion she came in exceedingly embarrassed. Her opening remark was, “I am too embarrassed even to look at you, Dr. Erickson [she had her hands over her face and was hanging her head]. I know everything that has happened to me. I’ve got a full memory of what you had me do in a trance in the office—if I just close my eyes, I can see the whole thing just as vividly now as I did then. I’m embarrassed. What will you think of me? I remember all the things I did Tuesday, Wednesday, Thursday—and please don’t make me tell about Friday. You would be proud of me, but it’s so embarrassing that I don’t want my husband to tell you even. Will it be all right if I just say I did everything that you or my husband could want? Oh, I mean that differently! Everything that my husband could want and that you would think I should do. Is that enough to tell you, please?”

She was reassured but told, “All I want to know is about your so-called phobia.”

She dropped her hands and declared angrily, “I’m glad you asked about that. I could kill Dr. X for giving me shock treatment for that and psychoanalyzing me and putting me in the hospital for months and giving me all kinds of hormones until I was a human pincushion!”

There was much more said in this same angry vein, but after expressing herself freely, the patient continued: “I just don’t see why I couldn’t have had just simple common-sense therapy. If I ever see that man again, I’ll slap his face! That isn’t very ladylike, and I hope you will forgive me, but my husband is a doctor and I’m a nurse, and we all know that there are some awfully stupid doctors. I even asked him about hypnosis and he sneered and—.” Here she was told, “Quiet down, that’s in the past; now tell me about your phobia.”

Her reply was, “That’s in the past, and I just can’t understand how I ever got into that awful way of behaving, but I couldn’t stop. I was just a scared little girl, too scared to think, and I just followed the path of least resistance, only it kept getting worse and worse.

“Then when you made me do those things, it was just like my phobia—compulsive I mean. I felt exactly like a little child—a frightened little child with some kind of a horrible, morbid curiosity. And the more I looked, the more I wanted to, and the stranger it got. Honest, I don’t believe I know half of all the weird things I did Tuesday night and all day Wednesday, Thursday, Friday.” With a flaming-red face she added, “And don’t you dare ask me about Friday night or Saturday or Sunday. You can just be proud of me as a patient. But why did I have to be such a silly child? I wonder if it was because I would think I was too grown up to do something silly like that. I don’t know, but anyway, I’m glad.”

Her husband added a comment here to the effect, "The more I think about it, and the more I think about neurotic behavior in my patients, the more I wonder if they have grown up emotionally. It looks to me, and I'm no expert, as if some of these neurotics ought to be handled on a simple childish level so you can get their understanding." Here his wife interrupted with, "You can say that for me."

### **SUBSEQUENT COURSE**

Over a period of five years the patient has been seen at regular intervals for a seasonal dermatitis from which she has suffered since about the age of five years. Previous treatment by various allergists had always been only mildly successful. With the close of certain pollen seasons, her dermatitis would vanish. The season following her hypnotherapy she sought hypnotic relief and amelioration of her skin condition.

This was attempted and proved much more successful than the treatment by the allergist. She reported to him what she had done, and he advised her to continue with the author stating that she was, at least for that season, securing much more relief than he could give her. Hence, each year she reports for her hypnotic symptom relief, and the allergist has continued to check her condition each year because of his curiosity about her much greater response to purely psychological measures than to his method.

# **Sterility: A Therapeutic Reorientation to Sexual Satisfaction**

Milton H. Erickson

Unpublished manuscript, circa 1950s.

A college professor and his wife, happily married for five years and ardently in love, abhorred the thought of children. Both were absorbed in their careers and their home life together. They enjoyed sex relations frequently and intensely and gladly practiced contraception, finding it no significant annoyance. By chance the man was asked by a friend doing research on spermatazoa to furnish a specimen, which he did willingly. Since the friend knew the attitude of the professor and his wife toward children, he did not hesitate to inform the professor that the specimen disclosed complete absence of sperm cells. Interested at once, the professor asked for recheck examinations, and these confirmed the original finding.

Delighted with this news, the professor and his wife abandoned contraceptive measures. During the ensuing year both the professor and his wife became increasingly irritable with each other, and their sexual ardor decreased greatly. Finally they began to discontinue sex relations and to absorb themselves unhappily in their individual activities. Because of continued increasing disharmony for six months, the professor sought psychiatric aid from the writer.

The above history was elicited, and he was then asked to comment on how he felt about the absence of spermatazoa in relationship to himself. He declared that it should be a comforting fact to him, since it did not interfere with him sexually and it removed a possibility that was appalling to both himself and his wife—namely, an undesired pregnancy. Nevertheless, after his first rejoicing, some unrecognized emotional element of a disturbing character had crept into his total affect. What it was, he could not state, but gradually he had begun feeling that he was lacking seriously in those things inherently necessary to himself as a man. Sexual activity had become increasingly meaningless to him, and he had experienced a feeling that his wife was reacting the same way. This had resulted in ever-increasing friction between them until the now-desperate situation had developed.

No attempt was made to discuss his problem with him immediately. Instead, he was asked to send his wife to the writer for a consultation. She was found to be remarkably frank and clear-thinking. She related a similar story with comparable significances.

At first she had been delighted at the opportunity to discontinue contraception. After some time—at first vaguely and finally with distressing clarity—she had realized that as a sexual mate her husband was biologically deficient—that is, that he could not constitute a biological masculine complement to her biological femininity. It was not that she

wanted to be pregnant; it was merely that she, as a biologically female creature, needed to feel that her mate could, really could, impregnate her. She had reacted to this understanding by trying to force herself to look upon the situation as a fortunate happenstance. Failing in this, she had suppressed her ideas forcibly, with the result that the marital situation had grown increasingly more difficult. Their last sex relations had been more than four months ago and had amounted to no more than a labored, futile, unpleasant effort.

No attempt was made to do anything other than to elicit the above story in clear detail. Then a joint appointment was made for both of them. They entered the office rather diffidently and hopefully, seeming to be eager for help. They were assured most earnestly that their problem could be solved if they could attend to and understand the ideas that would be presented to them. They were told that the discussion about to be offered would be based upon medical concepts that were pragmatically valid and that could reasonably be applied to them. Much of the preliminary discussion would seem irrelevant, they were told, and it would appear to have no relation to their problem. However, it would constitute the essential and elementary foundation upon which they could base an understanding of the correction of their problem.

### ***INDIRECT TRANCE INDUCTION WITH AN ABSORBING ASSOCIATIVE NETWORK***

Thereupon, in the most hypnotically persuasive way possible, they were presented with a systematic discussion of concepts of psychosomatic medicine, and numerous case histories and examples were cited to illustrate the effects of psychological forces upon somatic functioning. When they seemed to have sufficient understanding, a long, specious<sup>1</sup> argument was presented that:

1. Their joint desire, so strong, to have no children quite possibly could alter their procreative functioning.
2. Their use of contraceptive measures quite possibly could reinforce the psychosomatic effect upon their procreative functioning.
3. The continuance of contraception kept alive and active the psychosomatic forces militating against procreative power.
4. The discovery of a spermatazoa had resulted in the assumption that it signified biological failure with no realization that it was quite possibly a psychosomatic development protective of their actual needs.
5. The mere assumption that the a spermatazoa was biological and not psychosomatically functional led to an altered psychological state in them in which an essential element of their lovemaking was absent—namely, the protection of the other from procreation.
6. With the discontinuance of contraception, there could result a change in gonadal functioning, but since there was a profound psychological need to avoid procreation, another type of protection would be provided psychosomatically.

7. This new psychosomatic protection against procreation would be the progressive and finally complete loss of sexual interest in each other, a loss that would be distressing and troublesome.

8. Therefore, with these new understandings of possible psychosomatic functioning, it might be well for them to return to their original pattern of happy sex relationships. Thereby, any alteration in gonadal functioning that might have resulted from their abstention and their disturbed emotional states could be corrected by the reestablishment of the original behavioral pattern, and thus they could again have a sense of completeness in their sexual relationships.

They listened to this exposition of ideas<sup>2</sup> with intense interest and seemed to comprehend adequately. A few general questions were answered, and they were given an appointment in another month. At that appointment they reported happily that the understandings they had received had resolved their problem and that their marriage was back on its original status. The professor summarized the entire matter by ruefully commenting upon the human tendency of people, however intelligent, to draw far-reaching conclusions from insufficient data from another field of understanding and to make extensive unwarranted applications of it. Several years later they were still adjusting happily.

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<sup>1</sup> In this writer's opinion a patient kept awake by severe pain but who sleeps restfully and well as a result of a hypodermic injection of distilled water benefits more than he would from an injection of morphine.

<sup>2</sup>Not only is the writer aware of the superficiality and speciousness of the ideas presented to these patients, but he is also aware of the utter absurdity of their problem and of the appalling readiness with which people can seize upon some inconsequential idea and elaborate it into an overwhelming catastrophe. Furthermore, the writer recognizes that complete awareness of absolute truth is much less available than happy adjustments based upon those partial understandings acceptable to individuals and available and suitable to their own unique limitations.

# **The Abortion Issue: Facilitating Unconscious Dynamics Permitting Real Choice**

Milton H. Erickson

Unpublished manuscript, circa 1950s.

This report concerns a problem of brief duration, decidedly acute in character, and marked by terrified, obsessional, insistent demands. The patients were a young couple in their early twenties. Both were attending college, and they had been engaging in sex relations regularly for nearly a year. They had just discovered that there existed a pregnancy of about two months' duration. Both sets of parents were furious and unforgiving and asserted emphatically that "it better be gotten rid of, or no more college" (one more year of college for each remained). Extreme and unreasoning emphasis had been placed upon the shame entailed for all relatives and friends. The young couple had planned to marry but not until after graduation from college.

The couple were seriously distraught by their situation and by the parental attitudes which had developed to include "no college and no marriage unless you spare us this shame." The father of the young man furnished him sufficient money and advice on where to go to secure the abortion. A friend of the young man, knowing about the situation and aware of the highly disturbed emotional state of the couple, suggested that they see the author and get "tranquilized" before undertaking the risks of an illegal abortion.

Their distress was greatly augmented when the author uncompromisingly discountenanced an abortion. Nor would they listen to the author's suggestions of other, more reasonable possibilities. For two long hours they insistently repeated demands that the author approve the abortion and that he undertake the task himself by using hypnosis to induce physiological activity, thereby making it "legal," and that he prescribe tranquilizing drugs to "calm" both of them. They expressed fear that their overwrought emotional state, in view of the author's lack of cooperation, might cause an abortionist to reject them as too much of a risk, since neither could keep from bursting into hysterical sobs at frequent intervals.

Scattered items of information disclosed that each was an only child, highly protected by rigid and domineering parents, and that they were completely dependent on their parents for everything, including even their opinions in general. They were genuinely in love and were expecting to be married with parental blessings upon being graduated from college. Among the planned wedding presents were a secure position in the firm of the father-in-law-to-be for the young man and a beautiful home from the young man's parents. Now all of this, their entire planned and desired future, was at stake unless they abided by parental commands and secured the abortion.

Two full hours of desperate endeavor failed to make the slightest impression upon their insistent, hysterical, highly obsessional, repetitive demands.

### ***TRANCE INDUCTION BY UTILIZING OBSESSIVE BEHAVIOR, QUESTIONS, NOT KNOWING, AND A REVERSE SET OF SURPRISING IDEAS***

Finally the author decided to capitalize upon the obsessional, fearful behavior they both manifested by using that very behavior itself. As everybody knows, it is impossible to hold a stopwatch to time one's self and to avoid thinking about an elephant for one whole minute. This simple childish challenge seemed to present a method of dealing effectively with the problem they presented. Accordingly, the author emphatically demanded:

All right, all right, quiet now, quiet, if you want the help you ask. Be quiet and let me tell you how to ensure getting the abortion you are desperately trying to prove to me that you want. You have told me you want the abortion. You have told me that there is no other choice. You have told me that, regardless of everything, you are going to go ahead with the abortion. You declare most emphatically and resolutely that nothing can stop you. *Now let me warn you about one thing that can stop you, that will surely stop you, against which you will be totally helpless if you are not warned about it in advance. Quiet now! Listen attentively because you need to know this if you really want the abortion, if you really intend to get the abortion.* Now listen quietly and attentively. Are you listening? Both nodded their heads silently, expectantly.

You do not know an important thing, a vitally important thing. That essential information is this: You do not know whether that baby is a boy or a girl. You do not see, cannot see, the vital connection between that question and the abortion you have told me that you want. *Yet that question will prevent you from getting the abortion since you don't know the answer.* Your personalities, your psychological makeups make that question important. You do not know why, but who expects you to know? Let me explain! If that baby were going to be kept by you, you, not knowing if it were a boy or a girl, would have to think of a name for it that would fit either sex, such as Pat, which could be either Patrick or Patricia, or Frances for a girl or Francis for a boy. *Now that is the very thing you must avoid at all costs.* Under no circumstances, not even once, after you leave this office, are you to think of a possible name for that baby, a name that would fit either sex. *To do so and to keep on doing so would compel you psychologically to keep the baby, not to get an abortion.* Hence, under no circumstances are you to dare to think of a name for that baby. Please, please don't, because then you won't get an abortion. Every time you think of a name, that thinking will definitely deter you from getting an abortion. You will be forced into taking the money you have and seeing a justice of the peace and getting married. You want an abortion, and you can't have it if you think of a name, so don't, just don't don't don't think of a name, any name for the baby *after you leave this office, because if you do, you will keep it, so don't don't don't think of a name, any name.* Now without another

word, *not one word, not a single word, especially not a baby's name*, leave this office at once.

Thereupon the author took them by hand and led them quickly to the door to hasten their departure.

Several days later they returned, smiling in an abashed fashion, stating, "After we got married *because we just couldn't help thinking of dozens of names, and every name made the baby more precious to us*, we realized that all you did was bring us to our senses before we did something awful foolish and awful wrong. We had just lost our heads, and our parents didn't help either—that's why we acted like such awful fools in your office."

Inquiry disclosed that both sets of parents accepted the elopement instead of an abortion with a profound sense of relief. The original plans for setting-up the young couple were carried out when the husband was graduated.

The young mother had to delay her graduation for some time. Then the grandmothers alternately baby-sat so that the young mother could complete her college work. At the present time little Leslie has several younger siblings.

From the very beginning of the interview with this distraught couple the extreme obsessional character of their behavior, thought, and emotions was most marked. They seemed, as persons, to be basically sound yet caught in a situation they could not handle. Hypnosis was obviously not a suitable procedure, but it was realized, as observation of them continued, that a hypnotic technique of suggestion, seemingly worded to favor undesirable results, could effect positive results and that a specious psychological contingency could be so emphatically suggested to them that their own hysterical obsessional behavior would make it effective in securing a desirable end result. The emphatic presentation of the problem of not thinking of a name befitting either sex *outside of the office*, only incidentally mentioning marriage by a justice of the peace without actually suggesting that they resort to it, precluded any tendency for them to rebel because they had been "told what to do." This created a favorable climate for their voluntary marriage by a justice of the peace, since they were not recognizably so instructed. Fundamental to this evolution of results was their own sense of guilt, their own desire for marriage, their need to do something, the unexpressed and unrecognized anger at their hitherto loving, permissive parents, their outraged feelings at the parental rage and demands that they obey parental commands, and the suggestion of the friend that they seek "tranquilization." All this had so disturbed their emotions that they were left in an essentially irrational state. The author then simply and deliberately employed their own state of irrational thinking to effect a favorable outcome by the use of a hypnotic technique—the presentation of ideas in a fashion conducive to acceptance despite their overwrought emotional state. Additionally, that technique of suggestion, unwittingly to them, subtly transformed the problem from "we must get an abortion" to "we must not think of a name for the [our] baby." This could only be a losing battle, and

the very desperateness of their efforts not to think of a suitable name could only serve to bring them closer and closer to marriage—as, indeed, it did.

# **Impotence: Facilitating Unconscious Reconditioning**

Milton H. Erickson

Unpublished manuscript, 1953.

## **THE PROBLEM**

The patient was a 42-year-old physician, actively and successfully engaged in the general practice of medicine. With much embarrassment he doggedly gave the history of his complaint. It was, he declared, "psychogenic impotence," and he knew that this was the correct diagnosis since he could and did masturbate with ease and he could maintain a state of full tumescence up to the moment when sexual relations became an immediate possibility. Detumescence, but without ejaculation, resulted at once if any effort were made at vaginal insertion or even at intercrural placement. He could be masturbated successfully by a woman if it were done manually. Enfoldment of his erect phallus between a woman's breasts as a masturbatory measure led to immediate detumescence, even as did the mere suggestion of fellatio.

This problem, he stated, began in his first year in college. Together with friends he had visited a bawdy-house, but without success, although he had told his friends otherwise. Thereafter, he had secretly visited the same and other bawdy-houses, "always with the same humiliating failure. I could walk a mile with a full erection, choose the girl I wanted, go to the room with her O.K., undress, and start to get into bed with her, and then, kerplop, just like dropping a baseball bat, I'd lose my erection. That, literally, is the story of my life."

He continued his account by relating extensively his efforts at self-therapy. He had visited innumerable professional and clandestine prostitutes and had offered them large rewards all to no avail. He had engaged in campaigns of seduction of girls he had been informed were permissive, but however successful his campaign the desired result was not achieved. He had sought out women of the other races without achieving his goal. He had ventured "to try community stuff," which meant several men and several women all engaged at the same time in the same room in various forms of sexual activity with a repeated interchange of partners. All that he had achieved was successful manual masturbation of his partner, while she successfully masturbated him manually. He had once attempted to approach a "swish homosexual," but this had been so offensive an idea that he could not bring himself to make even a verbal approach. He had served overseas in the armed forces, but "I was in combat service repeatedly with casualties all around me without ever getting wounded, but sexually I was a total casualty before every engagement overseas."

He had tried alcohol in various amounts to overcome his difficulty, and before graduating from medical school he had sought out "hopheads and got hopped up with everything they recommended, but it was all no good."

After graduation from medical school and the completion of his internship he had searched the medical literature extensively and had experimented with every drug preparation that seemed to offer even the slightest hope, but all to no avail.

He had tried two other measures: stage hypnotists, whom he soon came to regard as patently fraudulent because of their extensive claims unsubstantiated by any scientific knowledge or results, and "bedmates," attractive, willing women he paid to sleep regularly with him over a period of many weeks, in the hope that "sooner or later," he might awaken with an erection during the night and succeed in having relations. This measure also was a failure.

His reason for seeing the author was twofold. In the first place he had been aware that ever since World War I medical interest in hypnosis as a scientific modality had been growing, and he was aware of the author's interest in medical hypnosis. Secondly, six months previously he had fallen "desperately in love" with a 32-year-old woman who had responded to him as intensely as he had to her, with mutual declarations impulsively made by the end of three months of their acquaintanceship. This had forced him into a full confession of his sexual incompetency, although not of the extensive "therapeutic" measures to which he had ineffectually resorted.

She was appalled by his difficulty, but she was convinced that their intense emotional regard for each other would constitute an effective cure. He was doubtful of this, but after several weeks of persuasion by her he agreed reluctantly (since he feared the outcome) to let her discard her moral standards and sleep with him. Approximately a half-dozen futile attempts were made to effect his "cure" by her proposed method.

They then discussed the possibility of a happy marriage with only sexual play and affectionate embraces; but, despite her belief in such a possibility, he felt that the frustrations entailed would inevitably result in marital discord. They finally decided "to date regularly without any attempt at sex, but this was frustrating too."

Then one day he happened to read an article on the surgical use of hypnosis, and this led him to secure an appointment with the author.

Having listened carefully to his story while making adequate notations, the author told the patient that his problem would require at least two weeks of thoughtful study before any opinion could be reached, and that he might then request another appointment.

### ***TRANCE INDUCTION WITH THE CONSCIOUS-UNCONSCIOUS DOUBLE BIND***

For the next two weeks much time was spent mulling over the nature and character of the patient's circumscribed, rigid, fixed neurotic behavior and the measures by which that distorted pattern of sexual behavior might be reordered constructively. At the end of this time the patient was seen and informed that therapy would be undertaken, that hypnosis

would be employed, but that in no conceivable way would he have any comprehension of what was being done or of how it was being done. Instead of his having any intelligent appreciation of his therapy, he was to be blindly, stupidly obedient to every instruction given to him by the author.

He looked puzzled but nodded his head affirmatively while sitting quietly and expectantly in his chair. Then he was then told:

As you sit there, close your eyes; listen intently to everything I have to say. Ask no questions; you have nothing to say. You are to develop whatever degree of trance is necessary, and that is what you are to do all the time you are listening to me. The only thing that is important is what I have to say, so listen intently with both your conscious and unconscious mind, especially with your unconscious mind, letting your unconscious mind take over more and more completely as you listen intently. It is not necessary for you to remember consciously, because your unconscious mind will remember what I say and what it means, and that is what is necessary. I shall tell you things you are to do, and do them you will, doing them as certainly as you are hearing me and being bound to do them as much as you are bound to hear them, and hear them you will, and do them you will.

So listen intently, ever more intently, going into that necessary trance to hear me the better by your unconscious mind, which can alone assure that you will listen, hear, understand, and then act. And that you will.

First of all there is to be no discussion, not even with M—. I and only I will discuss with M—.

Next, you must and will arrange with your colleagues and the medical society and your answering service that you will take no night calls for the period of three long long months. [Many times in his story he had made mention of two three-month periods.] Nor will you take calls before eight in the morning.

If necessary, simply take a three-month vacation from your medical practice just to do what you must do. But do it you will. Now listen with continuing intensity. Each morning you will note the calendar date, and each morning as you note the calendar date you will realize that day will end at midnight, and at midnight, every one of those midnights, for exactly three, three long intolerable months at the stroke of midnight up to the very end of those three long long months, you will know exactly what you are to do, and do it you must, and do it you will, up to the very end of those three intolerable long long months.

Now listen yet more intently. At the stroke of midnight for three long months, and only three long months, and for exactly and precisely only three long months, you will drop into sound physiological sleep at the stroke of midnight for each night of those three long months. And do it you will, for each night of those three long months, each night, no more, no less, for three long months.

Still listening intently, obediently, mindfully, and well. Each day you will dine with M—at exactly 8:30 P.M. Following this you may converse with M—, listen to music, or watch television—whatever you wish so long as you engage in no sexual activity whatsoever. Then, exactly at 11:00 P.M. you are to be in bed and the light turned off at exactly 11 o'clock. Not one minute before, not one minute later, but at exactly 11 o'clock the lights are to be turned out.

There you will be, lying quietly on your back in the dark, saying nothing, doing nothing but lying there waiting for the stroke of midnight so that you may fall asleep in sound, restful, physiological sleep. And as you wait, tumescence will develop fully, and you will know, know thoroughly and well that you can do nothing at all about it, that you will not even try or even hope to do anything about it. All you can do is to lie there with full tumescence, waiting to fall asleep at the stroke of midnight, and this you will do for three long months; exactly at the stroke of midnight you will fall sound asleep in physiological sleep. Then, when sound asleep, and only then, can detumescence occur. Only then can detumescence occur, only then.

Now, once more, maybe twice more, I shall repeat instructions as you continue listening intently in your trance, and then when I open the door, you will gently arouse and quietly leave. One final understanding that is to be achieved by you and you alone is that three long months is intolerably long, even as would two months be intolerably long, even as one month would be intolerably long, and all you need to know or to understand is intolerably long, whatever that means to you, so now listen while I repeat my instructions.

The instructions were then repeated verbatim, altering only the emphasis to effect, if possible, better unconscious understandings by the patient.

### **POSTHYPNOTIC BEHAVIOR INDICATING TRANCE DEPTH**

At the expiration of the session the patient departed alone in a state of self-absorption. He apparently did not recall that Miss M— had accompanied him to the office at the author's request. Nothing had been said to him about seeing her also. It was for this reason that the author preceded the patient out of the office so that she might be signaled not to attract his attention. The author had hoped for such posthypnotic behavior on the patient's part, but considered it unwise to suggest it. Its spontaneous appearance indicated the depth and effectiveness of the patient's trance. Had such behavior not appeared, the experimental procedure would have been repeated immediately to secure more intense hypnotic responses.

### **TRANCE INDUCTION AS "DEEP SLEEP"**

After the patient left, Miss M— was called into the office. To take advantage of her bewilderment at being so obviously forgotten by Dr. B., an explanation was offered: "I

have just been working hypnotically with Dr. B. in relation to the problem that concerns the two of you so much. So just be seated there in that chair, close your eyes gently, and go deeply asleep in a deep hypnotic trance."

Within a few minutes she was obviously in a deep hypnotic trance, and a presentation of instructions to her was easily made for which she developed a subsequent posthypnotic amnesia and full obedience. Her instructions were rather simple but very explicit. She was told to avoid quietly and unobtrusively any form of sexual behavior with Dr. B., to avoid even any form of affectionate physical contact with him, to be unquestioning of all of his behavior, to have dinner ready to 8:30 P.M. without fail, and to be in bed ready to go to sleep at 11 o'clock sharp, since Dr. B. would unquestionably turn out the light at that exact moment. Then in the dark she was to go to sleep quietly, comfortably, and in an expectantly happy state of mind that would be continuously present whether she were awake or asleep. All conversations were to be on topics unrelated to Dr. B.'s problem. Even if he should mention it, there was to be no discussion on her part. Since they had been living in the same apartment for some time, this was to be continued on literally a sister-brother relationship, so that she would lie quietly on her side of the double bed, contrary to her previous practice.

She was assured that all of this was utterly vital to the correction of Dr. B.'s problem.

She seemed to accept all instructions readily and to be quite passive in her attitudes. She left the office manifesting an apparent amnesia for the events of the office visit and for the manner of her arrival at the office. She accepted as a matter of fact the calling of a cab to take her home.

## The Results

Just 30 days later, after office hours, both Dr. B. and M— appeared unexpectedly in the office. His opening statement was simply, "I would like to introduce you to my wife."

There then followed a somewhat disordered account, which was noted in full by the author and subsequently put into a more coherent form for this presentation.

You know the problem I came to you for and explained in such great detail. Then I came again about two weeks later, bringing M— with me. I really don't remember much about that visit except that you began talking to me. M— tells me I forgot to take her home. But I do remember what I did. There was a young resident I liked very much who had just completed his residency. I asked him to take over my practice completely, because I had to be unavailable for about three months. I told him all income was to be his, and that if it wasn't sufficient, I would make up any additional reasonable amount. Everything turned out O.K. for him.

Then I took a leave of absence from the office, but M— and I continued to live in the apartment. We went water-skiing, swimming, dancing—but not much of that

because our evenings were so funny. Even when we dined out, we always sat down at the table at 8:30 and ate, even if it was no more than a sandwich or some fruit. Neither of us said a thing about this. It just seemed to be a way of life, no matter where we had been that day. Since we are hi-fi addicts, we usually played records. I've got a large collection, and we enjoyed them a lot. Once in a while we would watch television. I even had my telephone disconnected.

But the funny thing was that we both had a compulsion to be in bed ready to sleep at 11 o'clock. We never kissed good night. We didn't even say good night. Sometimes we were in bed a few minutes before 11, and I would watch the clock, and when it was exactly 11, I would snap off the light. We were like a couple of dummies. We were living a queer sort of way without even thinking about asking why.

And every night after I turned off the light I'd get a full erection, but I would just lie there not doing anything about it, just waiting until it was midnight, because I knew that I could fall asleep then and that I wouldn't lose my erection until after I fell asleep. I was just a zombie. I just didn't do any thinking. I just acted like an idiot.

Then the other night [inquiry disclosed it to be the 27th night of the suggested three-month period] after I had turned off the light and developed an erection, I suddenly realized that I was unusually wide awake and that I just couldn't go to sleep. Then while I was trying to fall asleep and couldn't, it dawned on me that I couldn't lose my erection until I did fall asleep. While I was wondering about this and still trying to fall asleep, I suddenly realized what it meant that I could not lose my erection until I fell asleep, and I suddenly exploded and I began making love to my wife. —Yes, we went to Mexico the next morning and got married, honeymooned the next day and night at a motel near Tucson, and today came in to see you. —Well, we just kept on making love until we both fell asleep. When we woke up, we were too excited to think about anything except getting married in Mexico right away. Then we honeymooned, as I said, but today on the way back to Phoenix to get an Arizona license to marry, we got to discussing what really had happened. But M— can't give much information, and what I know mostly is that I was hypnotized in your office and you told me what to do from day to day. But the important thing seems to be something that I'm confused about. It's that three months is just as intolerable as two months and two months are just as intolerable as one month, and there's something about understanding what intolerable really means. I don't suppose I need to know since I know I'm over my problem, but I am curious and so is M—. Both of us are completely satisfied, but we both feel that even if we don't know nothin' from nothin', it won't upset the applecart if you let us in on what happened.

They were asked if they wanted all the details or if they would be content to know that hypnosis had been employed to set up certain psychological patterns of behavior that would resolve the entire problem. To this was added, "To ask me to explain is like a

surgical patient asking the surgeon to explain a gastric resection." To this Dr. B. replied, "You may add that your patients are progressing postoperatively in a most favorable fashion."

More than five years have passed. The marriage has been a happy one. There are no children, but children were not wanted by either. From time to time Dr. B. refers a patient to the author or telephones the author to give special information about a referred patient and then to converse casually about matters in general.

## **DISCUSSION: HYPNOTHERAPY VIA PSYCHOPHYSIOLOGICAL CONDITIONING**

To discuss what was done for this patient requires oversimplification and general interpretations. The patient had experienced an unfortunate mishap in a situation of mixed, varied, and guilty emotions, which resulted in a distressing and embarrassing frustration. He sought to correct his mishap by returning to the scene of his misfortune, only to repeat the same unfortunate behavior again. Why it happened in the first instance can be attributed to mixed emotions and inexperience. Why he returned to the place of misfortune can be attributed also to lack of experience and to a misdirected effort at self-help. The second recurrence of his mishap was simply a repetition of his first learning, believing naively that his difficulty could be corrected only by more repetitions of self-help. At some one point in all those 22 years of frustration he reached the conclusion that an unhappy, meaningless detumescence constituted an absolute certainty for him, and he maintained that conclusion. For him detumescence must follow upon tumescence without intervening experience. He became practiced in this sequence of events and learned no way of altering it. To state the situation concisely, he found himself caught in a psychophysiological bind that led only to hopeless frustration, a learning he endlessly reinforced.

Now what was done therapeutically? The nature of his problem was assumed to be a frustration deriving from what, for convenience's sake, was regarded as a psychophysiological conditioning that would not lend itself to any recognizable therapeutic endeavor. He had had too much unfortunate experience to accept a contrary belief. Therefore, it was decided, that therapy might be accomplished by setting up a second psychophysiological conditioning contradictory to his traumatic conditioning. This would have to be done with the patient's full cooperation but without his understanding of what was occurring. Thus, a pattern of behavior was suggested hypnotically (hypnotically because "no one in his right mind would accept such silly suggestions in the waking state," where too often the needy listener sets himself up as a final judge despite any degree of ignorance). This proposed pattern of behavior permitted tumescence and conditioned any detumescence to the development of full physiological sleep. Conversely—and this could not be recognized—tumescence was conditioned to the wakeful state. Only by falling asleep could he lose his erection; conversely while he was awake after 11:00 P.M. tumescence had to persist.

Then came the task of working out the details of behavior that would permit this reconditioning, then the task of obscuring the reconditioning to protect it from destructive recognition. At the same time provision had to be made to ensure, within a reasonable time (what was reasonable the author did not know), that the patient would find himself inexplicably confronted by the new state of affairs with no comprehensible way of resolving or understanding the bewildering turn of events except by “doing what comes naturally.” So strong was the reconditioning that “doing what comes naturally” was terminated by complete satisfaction and restful physiological sleep, exactly as he had been intentionally reconditioned in this regard.

Once his goal had been so happily and well achieved, his problem could no longer exist. This the author knew before he undertook the case. The only problem was how to facilitate human behavior in a manner to lead to certain goals, to guard against interference by awareness of what was being done, and to create a slow, progressive development of emotional tensions (understanding what “intolerable really means”) that would result in a state of uncomprehending awareness of a reality that could only be met adequately by activity favored by the state of passivity so thoroughly instilled in Miss M—. Thus, they achieved their actual goal. Just how that suggested behavior led to the final result is, at best, merely speculative. The discussion offered above seems to be a fair account of the author’s understandings.

# **Latent Homosexuality: Identity Exploration in Hypnosis**

Milton H. Erickson

Unpublished manuscript, 1935.

A social service worker, Miss X, who had been supervised by the writer in her work and who had, at various times, acted as a demonstration hypnotic subject, decided to be psychoanalyzed because of personality problems. What these were she could not state, other than to declare that she was hostile, antagonistic, exceedingly aggressive, unable to adjust socially, and most unhappy because of periodic depressive reactions.

After a year of "classical" psychoanalysis, five hours weekly, she sought an interview with the writer on a Saturday morning. Her reason was that she had "wasted" the year of analysis in "stupid resistance." For the past three months she had spent each session either in silence or in giving accounts of her daily reading of current books and magazines, and she had not discussed anything pertinent to herself. She asked that the writer put her in a trance and "force" her to "get down to business." Otherwise, since her funds were being rapidly dissipated, she would have to discontinue analysis. In fact, she had twice discontinued analysis but had returned after a week's absence, each time in the hope of doing something other than "showing resistance." On this occasion, however, she had informed the analyst that, unless results were forthcoming within the next three sessions, she was terminating therapy.

She was informed that the writer could do nothing about her request, since she was under the care of another physician. She was rather angered by "such ethics," but accepted the refusal. She declared that she felt entitled to ask such a favor from the writer because of her services as a hypnotic subject in the past. This led to the writer's request, that, as a favor, she would again act as a demonstration hypnotic subject for a lecture before a medical group to be given that afternoon. She consented, commenting that it was apparently all right for the writer to ask a favor but that it was "unethical" for her to do so.

## **TRANCE INDUCTION AND HYPNOTIC ROLE-PLAYING**

Since the writer knew her well, he had formed a private clinical judgment about her personal problem. Also, he was thoroughly acquainted with her officemate, Miss Y, a most feminine girl. Accordingly, at the lecture she was deeply hypnotized and, among other things, depersonalized, then induced to assume the identity of Miss Y. She did this in a startlingly accurate and impressive fashion. As Miss Y, she expressed an intense dislike for Miss X, but could give no reason for this attitude. When the demonstration of this and other hypnotic phenomena had been completed, she was awakened, thanked and dismissed with a posthypnotic amnesia for the trance experiences.

She was seen a week later, very happy and excited. Her story was that she had kept her Monday appointment with the analyst and spent the first half-hour in sullen silence. Then, suddenly, the thought of Miss Y came to her mind, and this had loosed a whole flood of free associations. For the first time in her analysis she became communicative. Each session thereafter had been most productive. She stated that she was now making progress and that, when her analysis was completed, she would inform the writer of the nature of her conflicts.

Three months later she was discharged as requiring no further therapy. Shortly thereafter she sought an interview with the writer, explaining that she attributed the success of her analysis more to the writer than to the analyst. Also, for some reason, Miss Y should be credited in part, although she had disliked Miss Y until recently. However, therapy had corrected her dislike. She continued by explaining that her personality conflict had centered around "strong latent homosexual tendencies," which she had not recognized and which she had repressed with "every ounce of my strength." Because of those tendencies she had reacted with bitter hostility to men and to women in general, especially attractive, highly feminine girls such as Miss Y. Once this material came forth in free association in analysis, she made remarkably fast strides in her adjustments.

She concluded her account with the statement that she was confident that the writer and Miss Y, in some unusual way, had made it possible for her to recognize her problem and to free her of the repressions. Beyond this statement she could explain no further. She asked if any explanation could be given to her.

She was hypnotized and asked if she still wanted an explanation of her conscious belief. She confirmed her desire. Accordingly, she was instructed to remember all of the events of that Saturday-afternoon demonstration. She did so easily in chronological order, reporting her recovered memories readily until she reached the point at which she had been depersonalized and induced to assume the identity of Miss Y. Then she paused and, after much thinking, declared, "So you knew what my problem was all the time. And you made me become a feminine woman. And you made me enjoy it. And I did enjoy it. It was wonderful. I felt so good and so relaxed and so comfortable. And when you changed me back to myself and awakened me, I woke up so mad that I wanted to slap you. I was so glad when you told me I could leave because I was afraid I was going to slap you. I didn't know why. I couldn't sleep that night, and all day Sunday and Sunday night I was horribly depressed and angry. Monday afternoon at my hour session I was just mad at everything, nothing in particular. Then I happened to think of Miss Y, and that opened the floodgates. My analyst was so pleased that I had broken through the resistances. Now I can see that you recognized my problem, that you deliberately forced me into a position where, when I was Miss Y, I could think about myself as a stranger. I told you then I didn't like me, even though I didn't know it was me I was talking about. But I really saw me and it wasn't pleasant—all those repressed homosexual fears and conflicts."

"Then in that hour when I started to free associate, I really could do it! My analyst was so pleased, too. Any time you want to use me as a subject, you can, I owe you so much."

She has since married happily and is enjoying a career other than social service work, combining it with rearing a family. Subsequently she explained her reason to the writer for abandoning social service work, which was her realization that her original interest in such work was primarily a search indirectly for therapy and, at the same time, a denial to herself that she needed therapy.

# **Vasectomy: A Detailed Illustration of a Therapeutic Reorientation**

Milton H. Erickson

Unpublished manuscript, circa 1950s.

A college graduate in her early thirties, with three children, was married to a professional man. She sought psychotherapy because of what her husband described as "sexual obsessions" that had come to dominate their daily life during the past two years. These centered around an insatiable curiosity about the love affairs of people she knew and those she read about in the newspapers. The husband could not understand her "incessant talk" on the subject, since they were well-adjusted and active sexually. Nor did she have any doubts about his fidelity, since he had confessed his premarital experiences and had had no desire for extramarital experiences since marriage. Neither did she have any suspicions regarding him. However, she was convinced, and this was confirmed by her husband, that several permissive women had undue interest in him. One of them had actually suggested a liaison, should he be interested.

In discussing their sexual adjustments both husband and wife disclaimed any disharmony. After the birth of the third child they agreed on vasectomy as the most convenient method of birth control. The operation had been done four years previously when the youngest child was five years old. There had never been any feelings of regret experienced so far as either knew. They were entirely satisfied by the size of their family and relieved by no further concern about precautions for birth control.

The first part of therapy for Mrs. A was devoted to her explanation of her curiosity. Newspaper stories, neighborhood gossip, and general speculations constituted her communications. Next she began offering an extensive, well-organized, elaborate discourse upon the significance of sexuality in adult daily marital and family life in establishing emotional bonds and a sense of personal fulfillment. After several hours of this she declared that obviously she was making no progress and that she had decided that there was much in her unconscious that she was repressing and concealing by an avid interest in external matters. Therefore, she felt that hypnosis should be employed and that her unconscious should be encouraged to give free rein to expression.

## ***THERAPEUTIC TRANCE AND POSTHYPNOTIC SUGGESTION***

She proved to be a fair subject and readily accepted posthypnotic suggestions that she talk freely and without attempting to give orderly ideas. Upon awakening, she announced a full recollection of what had been said to her in the trance, declaring that she would not act as had been suggested. Instead, she had decided to speculate freely upon how a woman would think, feel, and act in considering how to establish a liaison. She then

described various men she knew, speculated upon their attributes, general attractiveness, sexual prowess, capacity to establish emotional relationships, possible attitudes toward liaisons, and numerous other considerations. Next were considered places, times, physical settings, social settings, and the general atmosphere in which a liaison could be culminated.

This was followed by an extensive consideration of the emotional effects and results of a single extramarital experience and the results of a continued affair. She discussed well and comprehensively the effect of liaisons upon the individual lives of the participants, their family relationships if they were married, their individual emotional lives, the influence of past training and conditioning, and the immediate and subsequent developments. This was followed by a consideration of guilt feelings, their impingement upon the individual aspects of life, upon the liaison itself, and the separate family lives.

Thereupon she began discussing in detail how she would react in establishing a liaison, how active and how passive a part she would take, and what she felt would be the ultimate outcome. Her conclusion was that she was certain she could adjust happily either to one single sexual experience with a highly desirable, respectable man, or to a discreetly conducted affair of at least a year's duration with a similar man. Usually an hour or two, sometimes more, was necessary to complete her discussion of these various topics. During them she was remarkably objective and serious in all of her remarks.

The next development was her declaration that she had only been "stalling for time without knowing it." She explained that all of the previous discussion had been but a slow introduction to the really important things she had to say. Thereupon she lapsed into a troubled silence, after explaining that she knew what her trouble was but did not have the courage to state it. The next hour was also spent in silent emotional distress.

At the next appointment she began with the assertion that she might as well begin to disclose her problem, which she had not previously recognized until she had remarked about "stalling for time." She then asked permission to speak frankly and freely. When this was granted, a torrent of words poured forth in the language of the street. In essence she declared that she was an adult woman, a married woman, a woman who had borne children, that she was a sexualized female, and that, as a healthy normal living creature, she was entitled to have her biological needs and hungers completely satisfied. Therefore, as a living healthy normal female, with healthy normal appetites, she was entitled to be satisfied by a male who was completely a male and not one who was "expurgated" or "bowdlerized." He did not have to have two legs or even one, nor two arms, nor even two testicles. All that he had to have was enough penis and testicular tissue to be able to ejaculate semen—live, potent semen—upon or in her genitals. Thus, and only thus, could she have the biological satisfaction of being a sexualized female. She did not want more children, she had no desire to become pregnant, but when she had intercourse, she wanted to have it with a man capable of impregnating a female and not capable of only simulating such an act. In fact, she had never objected to contraceptives because the capacity to impregnate existed, and therefore a biological potency existed.

She had not realized that a vasectomy would constitute so serious a deprivation for her. In fact, she had not even been aware of such a possibility. She had first looked upon vasectomy as a simple solution to a minor nuisance, but after a year a growing unrest and dissatisfaction had developed. She had met this by increased sexual activity and ardor, to her husband's great satisfaction and the seeming happiness of their sexual adjustments. As her vague unrest developed, she had first reacted by dropping some old friends and replacing them with new acquaintances. As she looked back, she realized that the rejected friends were either unmarried or childless couples and the replacements were couples with children. Additionally, she had developed a predilection for people who were grandparents, particularly those whose sons had borne children, thereby signifying a continuance of masculine biological potency.

Also, as she reviewed the men she had considered as possible lovers, every one, whether married or divorced, had fathered children. The only single man in the list had been involved in a bastardy case. In her obsessional interest in love affairs, rumored or published in the news, the only ones that had interested her were those of men, married or divorced, who had fathered children. She went on to declare, in direct Anglo-Saxon terms, that the essence of her problem was a compelling desire, once more, to have sex relations with a biologically complete man, even at the risk of an illegitimate pregnancy. This last assertion was taken as a point of departure in summarizing her problem for her. Accordingly, the following discussion was offered:

1. What she wanted was an emotional experience, an emotional satisfaction, a satisfaction related entirely to her inner needs.
2. The question of risks involved, of times, places, physical setting, social atmosphere, etc., were all unimportant, since the problem was one of her emotional satisfaction.
3. The man himself would be no more than an instrument, that it was not a part of her need to establish an emotional bond, such as marriage and a home, that all she desired was her own response to a specific stimulation that could effect a satisfaction of her emotional needs.
4. Therefore, her problem did not center around the giving of sexual satisfaction, but the gaining of complete sexual satisfaction at an emotional level in relationship to a man.
5. Hence, it would not be necessary for the man to do anything or to provide anything actually material to her sense of complete sexual satisfaction other than to be a potent male. His potency as a procreator would be the only important consideration.

The patient was most attentive to these ideas, and care was taken to prevent her from analyzing them too closely. The suggestion was offered that they ought to be presented in detail to her unconscious mind to permit an even more adequate understanding of them. She agreed and developed a definitely better trance than before and listened attentively to the discussion offered her a second time of the above ideas. Thereupon the suggestion was offered that her needs could be met in a remarkably adequate fashion and in a manner that would please and intrigue her without emotional repercussions of any sort.

She was urged to accept this idea of this possibility, even though she did not know exactly what was meant. She asserted that she would do whatever was asked.

## **POSTHYPNOTIC SUGGESTIONS FOR THERAPEUTIC DREAMS AND FANTASY**

The explanation was then offered that that night she was to sleep most soundly and, during her sleep, she was to dream vividly of the past. This dream was to center around a period of time just previous to the conception of any one of her children (they were all "planned children"). The dream was to be most vivid and active, and it could be as erotic as she wished. Upon awakening the next morning, she could, if she wished, remember the dream. On the second, third, and subsequent nights she would continue to have similar and even more vivid dreams.

At her next appointment she reported that her dreams had been as suggested and that in them she had relived previous satisfying experiences with her husband. As a result of her dreams her sexual appetite had increased greatly, but nevertheless she still had her compelling drive. A new series of posthypnotic suggestions was given her. This time, in addition to her nocturnal dreams, she would, upon awakening, recall them and engage in a fantasy about them. Thus, she would suddenly discover, during the fantasy, that sexual excitement was developing, culminating spontaneously in an intense orgasm.

When seen four days later, she related this new development. Her first fantasy had been a recollection of her courtship days. She had been suddenly overwhelmed with excitement and embarrassment upon recalling a specific instance in which the question of premarital sex relations had been discussed, and she had reacted by experiencing a violent orgasm.

The next morning, while recalling her dream, she chanced to see her husband's photograph on her dresser. This had been taken just shortly before the conception of the second child. Upon looking at it she developed sexual excitement, which culminated in an orgasm. Later that day she had taken out an old photo album to look over her collection of snapshots of her courtship days. In so doing, she came across the picture of a former admirer, now married and the father of several children. To her amazement she became sexually excited and had an orgasm. This had astonished her so much that she "did not know what to think," and she remained preoccupied and self-absorbed throughout the rest of the day.

That night, after satisfying sex relations with her husband, she fell asleep comfortably and began a series of dreams. In each dream she saw, spoke to, or merely thought of various men, and as well as she could remember the dreams, she had in each instance experienced an orgasm. Then in the morning, when wide awake and reviewing her dream behavior, she had deliberately chosen to fantasize about one of the men she had previously named, and had been delighted to experience an orgasm as a result. That afternoon she picked up her husband at his office. While waiting for him, she had greeted his business associate, a married man with a large family, and had quietly and immediately had an orgasm. That evening she had insisted that she and her husband call

on a married couple she admired greatly. While playing cards with the host as her partner, she had an orgasm.

Since then she had been thinking things over, and she felt that she now had no problem of any sort. She had, she explained, a feeling of inner conviction that she was truly a biological female, capable of responding adequately to any biologically competent male at any time she chose and in a way that met her needs adequately without creating problems. In the two years that have elapsed since the termination of therapy, she has been seen on occasion for advice concerning her children. As for her problem, it no longer troubles her. She feels free to have her own sexual response in her own way, but usually she resorts to a dream, almost invariably about her husband and in relationship to the time of planning for a pregnancy.

# **Pseudo-Orientation in Time as a Hypnotherapeutic Procedure**

Milton H. Erickson

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In every attempt at psychotherapy there is always the need to utilize the common experiences and understandings that permeate the pattern of daily living, and to adapt such utilization to the unique needs of the individual patient. Hence, to a significant degree psychotherapy must necessarily be experimental in character, since there can be no fore-knowledge of the procedures exactly applicable to any one patient. Furthermore, the entire field of psychotherapy, in itself, is still in the course of early development, thereby enhancing the need for continued experimental studies.

For these reasons the following case histories are reported to illustrate an experimental therapeutic technique employed by this writer from time to time for the past 15 years. This technique was formulated by a utilization of those common experiences and understandings embraced in the general appreciation that practice leads to perfection, that action once initiated tends to continue, and that deeds are the offspring of hope and expectancy. These ideas are utilized to create a therapy situation in which the patient could respond effectively psychologically to desired therapeutic goals as actualities already achieved.

This was done by employing hypnosis and using, conversely to age regression, a technique of orientation into the future, or "time projection." Thus, the patient was enabled to achieve a detached, dissociated, objective, and yet subjective view of what he believed at the moment he had already accomplished, without awareness that those accomplishments were the expression in fantasy of his hopes and desires.

## **PATIENT A**

The first of these case histories is that of a 30-year-old divorced man who held a minor clerical position, lived in a wretched rooming-house, and had no friends of either sex. He did no reading, did not attend church or the theater, ate all his meals in one cheap restaurant, and limited his recreation to aimless driving about the countryside.

For three years he had been under the care of a general medical man because of innumerable somatic complaints involving all parts of his body. At one time he had been hospitalized as a possible candidate for abdominal surgery. He had reacted traumatically to his admission to the surgical ward by developing extreme terror, sobbing, screaming, and complaining of agonizing abdominal pain. An exploratory laparotomy disclosed no

pathological condition, but a routine appendectomy was performed. His convalescence was prolonged for a month and marked by even more complaints than he had expressed previously. Additionally, he was periodically depressed, cried a great deal, and was most reluctant to leave the hospital. The operation and his related behavior convinced him that he was a "coward," that he was "no good," "worthless" and "incapable of being a man."

Thereafter he had functioned at an even lower level personally and economically. He visited his physician two to four times a week, plaintively seeking help for his weakness, backache, headaches, gastric pains, etc. Efforts to refer him to psychiatrists proved futile. They "did not understand" him. In turn, the psychiatrists variously reported him as a "character defect," an "inadequate personality," a "profound hypochondriac," and a psychopathic personality of the constitutional inferior type." All agreed that he was not amenable to therapy. However, the writer's clinical impression was much more favorable.

Approximately 18 months after his laparotomy, he was referred to the writer for hypnotherapy, and the extensive case history which his physician had taken was made available.

Rapport was easily established with the patient. He was pitifully eager to be hypnotized, and he proved to be a remarkably fine subject. For a month he was seen weekly for a three- to four-hour session. During this time all efforts were devoted to training him to develop readily every hypnotic phenomenon of which he was capable. For all of these sessions a profound amnesia was induced. No therapy was attempted other than establishment of good rapport and a general feeling of trust and confidence.

The next two sessions were spent having him hallucinate a whole series of crystal balls. [The idea of crystal balls lends itself readily to popular understanding, and hallucinated crystal balls are convenient, easily manipulated, and remarkably economical] In them he was induced to see a great array of the outstanding emotional and traumatic experiences of his life. These hallucinated portrayals were "fixed"—that is, he could look from one scene to another and back again without having to rehallucinate. Thus, he could see himself depicted in various situations and at different times in his life. Thereby he could observe his behavior and reactions, make comparisons and contrasts, and note the thread of continuity in his reaction patterns from one age level to the next.

A most extensive and elaborate series of events was thus viewed by the patient. His reaction to the total experience was one of hopeless resignation, "Anybody that has had all that happen to him ain't got much chance." Even after being awakened with an amnesia for each session, his mood was one of discouragement and general depression.

The next session was spent by having him discuss in the waking state all the things he wished for himself, the hopes he had, and all the ideas he had of what might be possible for him. This session was not satisfactory since much of the time was spent emphasizing his complaints as insuperable barriers to anything he could want. At the close of the session he was most discouraged.

At the next session he was hypnotized deeply and instructed to repeat the task of the preceding session. His wistful, plaintive hopes for the future can be summarized as follows:

1. The enjoyment of "just fair" physical health.
2. An economic adjustment "about average."
3. Personal adjustment sufficient so that he could "get along" in relation to recreation, personal habits, social activities, and personal interests and friendships.
4. "Not too much" fear, anxiety, and feelings of compulsion.
5. "Enough guts to be a man" if he ever had to have an operation, or, if he had to defend his rights, "to take a licking like a man."
6. A desire to be able to "take in my stride a little better" all the bad things that had happened to him or might happen in the future.
7. A wish that he could achieve "maybe enough" emotional maturity so that he could marry for love and not "because someone pitied me."

He was awakened with an amnesia and departed in a general depressed mood.

In the two preceding sessions, as in the previous sessions, no effort was made to do more than to elicit his responses. At the next session, with the patient in the waking state, a vague general discussion was elaborately offered of what he could expect in the future. This, it was explained, *would be the opportunity to look back over the past, to review his complaints and difficulties, and to recall the developments of therapy. Then, most importantly, he could examine all those accomplishments, resulting from therapy, that represented his achievement of those things signifying normal adjustments. However, this latter could be done only after a lapse of time, probably several months, following the termination of therapy.*

He was then hypnotized deeply, and the same discussion was repeated in similar general terms. Still in the deep somnambulistic trance, he was then disoriented for time and then oriented or projected in time<sup>1</sup> to some future date<sup>2</sup>.

The projection into the future that this patient achieved was approximately five months, and the setting was an office visit. The purpose of his visit—since, for him, enough time had elapsed since terminating therapy—was to give an account of what had really happened since then.

The suggestion was offered, to which he readily assented, that he might like to begin with a brief but comprehensive review of the past as depicted in crystal-ball scenes. Some 10 minutes were spent by the patient in this hallucinatory review. During it his emotional manifestations were those of sympathetic interest rather than the intense fear, anxiety, and concern he had frequently shown in previous similar situations.

Then the suggestion was made that he might be aided in giving his report on the therapeutic developments he had achieved by visualizing the significant incidents in another series of crystal balls. Thus, he could enjoy watching the progressive unfolding of each event as it had occurred.

He agreed enthusiastically, and as he viewed the various hallucinatory scenes in the crystal balls, his enthusiasm and pleasure increased. Frequently he would either comment excitedly or demand that the writer observe what was happening.

Some of the reports he gave may be summarized briefly as follows:

1. I'm walking down the street. I'm turning. I'm going to see Dr. X (his physician). No, I'm walking past. I'm thinking, "Thank God, I don't have to go there again."
2. I'm swimming and—watch me, I'm going to do a high dive.
3. Look, I'm asking the boss for a raise. He's going to give it to me. Damn it, I couldn't hear how much. I don't understand that. (His attention was hastily distracted.<sup>3</sup>)
4. My goodness! Did you see that? That was that great big lug who always parked his car just to be mean so I couldn't get my car out until he came out half an hour later. Now I'm telling him off and thinking what a sap I was to keep parking my car where he could pull that dirty trick.
5. I'm in the theater. (He was asked what the picture was.) Who's looking at the picture? I'm necking my girl.
6. That's a different girl and I'm taking her to the art gallery and then we are going out to dinner. She's pretty.
7. I'm giving a speech to a group of men. I wonder which one that is because I gave another speech, too, but I can't see plainly.
8. My car has been painted and I got a new suit. Looks good. I even wear it to work.

He was unwilling to discontinue his crystal-gazing, expressing much pleasure in his accomplishments and a desire to describe more of them. However, he was reoriented to the current time and given extensive posthypnotic instructions to have a complete amnesia for every possible thing that might have occurred during the session.

Additionally, he was to make no response of any kind to any of the things that might have happened during the session except a full obedience to the instructions just given.

He took his departure, complaining of extreme fatigue.

He was seen the next day, and the same routine was employed. He was carefully oriented about seven months in the future, and he made a similar initial response to this projection in time.

He was addressed as follows:

As I remember, I saw you last about two months ago. You came in to report upon your progress. I put you in a trance and had you visualize yourself in crystal balls so that you could give me full accounts.

Now, suppose you remember tonight all the things you said and saw that night about two months ago. Never mind anything I saw or did; remember only the things you said and saw and did while you were giving me the report. [This was to prevent him from recalling anything about preliminary or subsequent hypnotic instructions, particularly in relation to time projection.]

Now review all those things. Some of them go way back to our first meeting and even way back to the beginning of the problem you brought to me. Think them over carefully, clearly, extensively, and then discuss things for me.

The essential content of his discussion follows:

I was really a sorry mess when I met you. A whining crybaby. I don't see how you could have stood me. Dr. X deserves a gold medal for what he put up with. It embarrasses me to think about it.

I don't really know what happened. It was like a dream, but it wasn't a dream. Whatever you said to be became true. I was a little boy, I was older, I was still older, sometimes all at the same time. Some way you made me live my life all over so I could see it. I really lived it, too.

Then you made me see it in moving pictures in crystal balls. I was in the crystal balls. And I was outside watching. Some of the things I saw were pretty darn sad. But I was a sad sack myself.

But the thing I really liked but didn't have any hope about was when you made me tell you all the things I wanted to do. Then somehow I began doing those things. I can't understand that because I must have been in this room and I wasn't. [He was immediately interrupted, and extensive hypnotic instructions were given that he report only on what he himself saw and did and that he was not to try to understand the situation.]

Well, I did every one of those things. Surprised myself! Boy, I really felt good about it. I enjoyed doing them. I sure was surprised when I asked that waitress for a date. She's a nice girl. And that raise was \$10.00. And when I told off that lug about blocking me in with his car, he took it like a man. And I felt like one! I've got to look up Dr. X some day because he was really interested in me. I guess he believed in me, even if he didn't help me.

He continued to review extensively, with confidence, assurance, and pleasure, a further wealth of fantasied accomplishments, all in keeping with a suitable reality situation for him. They all had, apparently, the significance of absolute realities for him.

When he had apparently finished, he was told that he was to be hypnotized. By this approach it became possible to reorient him to current time. Again, as in the previous session, he was given extensive posthypnotic suggestions to induce a comprehensive amnesia for trance events of all sorts.

Still in the trance state, he was instructed ambiguously that his next appointment was possibly for next week but that it might or might not be kept; that various events would develop which would determine both the time and the manner in which he would keep the appointment. However, he would certainly be seen again, if not next week, quite possibly in two months' time.

He was awakened with posthypnotic instructions for amnesia and dismissed with no mention of a future appointment. He appeared exhausted and self-absorbed.

He was not seen until eight weeks later. He arrived in a new suit, and his car was newly painted and had new seat covers. An attractive young girl, a secretary, accompanied him. His opening statement was that he felt that he would like to give the writer an account of the recent events that had occurred. His report may be summarized as follows:

For about a week after the last session he had felt confused and bewildered, but at the same time he had a "feeling" that "something good was happening" to him. Then one day he had wondered about his next appointment while at work, but before he could clarify his thinking, he had impulsively asked his employer for a salary increase. Not only had this been granted, but he had been transferred to another and better position. This had given him a tremendous feeling of elation and self-confidence.

Upon leaving work that night, instead of waiting in his car and raging helplessly, because he was boxed in, he hailed the man and invited him to have a beer. During the drinking he had told the man in a simple, matter-of-fact tone of voice, "I think you have been blocking my car regularly because I've been such a damn sissy. From now on, you damn bastard, cut it out and have another beer on me." This had ended that petty persecution.

Much elated by this, he dined at a different restaurant that night, fell into conversation with a waitress, and asked her for a date. She refused but, unperturbed, he went to the theater alone.

Subsequently he had moved to another and better residential section. In the process of moving, he "went through all the trash I've been saving for years. I threw out all the junk, I really cleaned house."

He had joined a Young Businessmen's Club and had maneuvered himself into a position on the weekly program. He felt that he had acquitted himself creditably.

From then on, "I began living a normal respectable life and enjoying things like an average man. I just suddenly got out of all my bad habits and feelings. It was easy once I got started. I just never tried that before. But one thing just naturally led to another and instead of feeling bad like I used to, I just get out and do something I ought to.

I met my girl at a dance, and we're going steady. But we are going to wait awhile to see if we're really interested.

My health is good. I don't pay attention to every little ache or pain the way I used to. You got to put up with a cold or something like that instead of getting scared to death. Some day I'm going to see Dr. X and let him see me the way I really am. He was a good scout with me."

After still further discussion, during which no effort was made by him to inquire into what had occurred in relation to the writer, he departed. He was seen casually from time to time thereafter in a social way. Two years later he was still adjusting satisfactorily, and he and the secretary were completing their plans for marriage.

## **PATIENT B**

This case history concerns a long-continued, highly circumscribed form of compulsive behavior.

The patient's mother had died when he was 12 years old. His father insisted that the son visit the mother's grave and place flowers on it every Saturday, Sunday, and holiday regardless of anything except absolute physical incapacitation. On several occasions the boy had played truant and had been brutally beaten by the father, who had reacted to the mother's death by becoming a severe alcoholic.

When the patient reached the age of 15, the father, first giving the boy a most brutal beating to make him remember to visit the grave, had deserted him. For a year the boy had lived in the home of a distant, unfriendly relative before striking out on his own.

For 15 years, summer or winter, rain, shine, or snow, he made his pilgrimages to the grave, sometimes having to make regularly a round trip of 20 to 40 miles. Even during his courtship he regularly took his fiancée on the Sunday pilgrimage.

During the years physical illness had confined him to bed on several occasions and made him miss his regular trips. He had reacted by making extra visits during the week. The result had been a compulsion to make a daily trip. At the time of seeking therapy he was making a daily round-trip of 20 miles.

He had attempted to break the compulsion by placing bouquets of dandelions or wild chicory blooms from the roadside on the grave, even limiting the offering to a single bloom and then to none at all. However, the compulsion proved to be that of a visit only.

Then he tried to break it by merely driving past the cemetery and hurrying home. A dozen such attempts had caused him such extreme anxiety, insomnia, panic, gastric symptoms, and diarrhea that each time he had been forced to make a midnight trip to fulfill his "obligation."

His reason for seeking therapy was that he had recently been offered a most advantageous position in a distant city and the deadline for his acceptance was approaching. While both he and his wife were most eager to make the change, the thought of being unable to make the daily trip to the grave caused him to suffer intense panics.

Because time was short and his problem was circumscribed in character, intensive hypnotherapy was employed. He proved to be an excellent somnambulistic subject and was easily taught to manifest hypnotic phenomena.

In a deep trance he was asked to review his innumerable pilgrimages, his memories of his mother, and the nature and character of his feelings, particularly his resentments, toward his father. He found this a most difficult task and possible only if he did it silently. Hence, this approach was abandoned.

Accordingly, he was disoriented for time and systematically oriented by projection into time *two weeks in the future*. Essentially, a technique comparable to that used for Patient A was employed. During the process of orienting him in the future, elaborate instruction was given to him to ensure a calm, comfortable feeling and to induce an overwhelming interest in whatever the writer might have to say.

As soon as the new orientation had been secured, a casual conversation was begun with him and carefully guided to the subject of his remarkably good muscular development, of which he was exceedingly proud. This led to an extolling of the patient's adherence to his principles in not smoking or drinking and of living a good, clean, industrious, hard-working life.

When these ideas had been built up sufficiently, he was challengingly asked, apparently in a spirit of camaraderie, if he had the strength to stand up like a man under a shock. He replied that he could "stand up under anything that any man could dish out." This led to the writer's declaration that he could easily "floor" the patient "with a good wallop." Entering readily into the spirit of the verbal exchange, the patient declared that the writer did not have "enough beef." After still further similar persiflage, he was warned, "Pick a spot on the floor to take a tumble, because I'm going to hit you hard and unexpectedly. Listen, here it comes. Now listen! You are a beautiful physical specimen, you live right, you work hard, you are a strong man, you are feeling good. Now here's the punch. Listen! *For two whole weeks you have not visited your mother's grave—not once for two whole weeks.* Are you alive, are you strong, or are you a weakling that I can lay out with my little finger?"

His startled response was, "Good god, how did I stop?"

Before he could elaborate that question, he was emphatically admonished that it was not the how, *but the fact the he had stopped that was of significance, and that he could now feel happy and relieved that it had been done.* Without a pause the writer continued with a rapid, general discussion of all the problems involved in packing, moving, finding a new home, and getting settled. The patient was admonished emphatically to work out these matters to the last detail, since it was a problem that would require every possible bit of energy.

Very rapidly, then, he was reoriented to the current time and awakened with extensive posthypnotic suggestions for a continued amnesia of all trance events. He was given an appointment in two weeks' time and dismissed. (Since it was known that his grave visits were a sore topic at home and never mentioned, no special precautions had to be taken.)

He reported promptly for his next interview and was cheerful and enthusiastic. He had accepted a new job; arrangements for moving were practically complete, and would be accomplished within the next week.

Special inquiry had been made secretly of his wife, who reported that, while he had worked regularly, he had been home each night approximately an hour earlier. Also, he had worked busily at packing the full day both Sundays as well as during all spare time during the two weeks.

Accordingly, his enthusiastic account of his new preparations was suddenly interrupted by the inquiry, "How does it feel to be happy, content, enthusiastic, and really interested in the new job and *few from having to visit your mother's grave?*"

In startled amazement he declared, "Good God, I haven't done that for two weeks. I've been so busy."

Immediately, by means of a posthypnotic due to which he had been trained to respond, a deep trance was induced.

As if there had been no alteration in his level of awareness, the writer replied, "Yes, now that you are asleep, you now know that you were too busy. More than that, *you know now by actual experience that you don't need to visit the grave anymore.* But, of course, if an legitimate occasion ever arises, you can do so in a normal way. Thus, on Mother's Day you could, or some such occasion."

After some silent thought he asked, "Is my father alive?" Reply was made, "Neither you nor I know if he is dead and gone; we know only that he is gone and that you are a man.

Return was made to the question of the new job, and after some further discussion he was awakened. At once he returned to the moment preceding the posthypnotic cue by remarking, "Two whole weeks! I don't understand it, but it's sure O.K. with me. Maybe taking that new job did something for me."<sup>4</sup>

Return was at once made to discussion of the new position, and shortly he was dismissed.

In the 10 years that have followed only on those rare occasions when he visited the hometown would he visit the grave, and then only if it were convenient. Also, there have been no other neurotic manifestations developed to replace the original compulsion.

## **PATIENT C**

This next case history also concerns a circumscribed problem but of another type. Psychiatric help had been repeatedly sought and always rejected on the specious grounds that cooperation was impossible. The patient was a 20-year-old student nurse. When she was less than a year old, her mother had secured a divorce, broken off all ties with everyone she knew, moved to another state, and had destroyed every possible evidence of the father that she could.

As the patient grew older and inquired about her father, the mother simply stated that she had divorced him, that she knew nothing about what had happened to him since then. Additionally, the mother firmly refused to give any description of him or even to reveal the location of her former home.

Upon reaching the age of 18, the patient made a determined effort to learn something about her father. The mother's marriage certificate and divorce decree were locked, she was informed, in a safety deposit box and would remain there. As for the patient's birth certificate, it disclosed only that she had been born in Chicago. Her mother explained that her birth had been unexpectedly early and had occurred while she and the father were visiting some of the father's relatives in Chicago. As for the mother's maiden name, that, like the father's surname, was utterly commonplace and there would be no possible way of tracing identities.

Thoroughly frustrated by this, the patient had sought out psychiatrists who used hypnosis. She would demand that they hypnotize her and thereby compel her to remember something about her father. However, she would immediately establish an impasse by declaring that such a procedure would be ridiculous, since she had no memories of him. Hence, all that would be secured would be her "imaginings" and she did not want to have them passed off as genuine. She invariably refused to cooperate and at no time was she ever hypnotized.

When she came to the writer with the above story, her request was refused on the grounds that a search for memories before the age of one would be futile. (Actually, of course, she represented an interesting problem if her cooperation could be secured by a judicious use of negativism on the writer's part.) She was reassured by this refusal of her request, but before the interview was terminated, she had become interested in hypnosis simply as a personal experience.

Accordingly, arrangements were made to train her for "experimental work." She readily became an excellent hypnotic subject except for the one procedure of age regression. This

she would not permit, and when indirect efforts were made, she invariably awakened to protest that "things seem to be going wrong."

Therefore, the measure of projecting her into the future was decided upon as a possible approach to her problem.

Consequently, while she was in a profound somnambulistic state, an "experiment" was outlined for which she was to do some learning tasks. Then, it was explained, she was to be projected into the future, and she would report upon that learning. Thus, the nature and character of her forgetting could be studied. However, as a "preliminary" bit of training she would first be projected in time and induced to have fantasies of activities during the period of time between the current date and the future date.

Following these explanations (actually disguised instructions for her guidance), she was disoriented and then oriented to the future. No effort was made to ascertain the approximate date, but various remarks permitted the deduction that the time projection was about two months.

She was asked to give a full account of that "remarkably interesting patient" she had cared for since that "last interview with me quite a few weeks ago." She executed this fantasy and several others of a comparable character. During the narration of them mention was made repeatedly that she had probably forgotten a lot of the details, to which statement she was induced to agree.

She was then reminded that "quite a long while ago" arrangements had been made to study her rate of forgetting and that the time had now come. Speaking rapidly to ensure her full attention and to preclude her analyzing the statements made, she was told:

1. I am positive you have forgotten completely a task I had you do a while back.
2. I want you to work on the full assumption that you did it, even though you can't remember doing it.
3. I want you to recover as systematically as you can the memories of what you did.
4. It was an unexpected task for which you could make no plans to remember.  
Hence, you forgot it.
5. This task was done between the time of the last interview you remember and this present moment. (Projected time.)

The task was then described to her as regressing in age and recovering a variety of memories about her father, all of which she had now forgotten.

The proposal was offered that she now try to recall what she might have discovered in that age regression by whatever means she chose, crystal-gazing, automatic writing, flashes of memory, or any other means she wished.

She hesitatingly suggested crystal-gazing. Immediately the suggestion was offered that in a series of crystal balls she would see herself at descending age levels until she saw

herself as an infant-in-arms. (As for Patient A, these crystal balls were "fixed.") She was to study these portrayals carefully, until she felt certain that she had "rediscovered" the forgotten memories.

For half an hour she sat silently, absorbed in this task. Finally she turned to the writer and indicated that she was through. Instructing her to keep the memories and to report them in any way she wished, the crystal balls were removed by suggestion. (The reason for this was to prevent her from developing tangential interests by observing again the crystal balls.)

She was asked what she thought about the experience. Her reply was the startling request that the writer examine the back of her right knee.

That examination revealed an old, small, jagged scar. Told about this, she explained, "I saw myself as a little girl. I was six years old. I was playing. I was running backward. I tripped over the root of a tree. My leg hurt. I got up crying. Then a lot of blood ran down my leg. I was scared. Then the crystal ball disappeared."

After some moments of silent thought, she continued, "I'm all mixed up. I think different ways about time. I don't like it. I think you better straighten my mind out and tell me to remember everything. I think I'm in a mixed-up trance. Wake me up."

She was reoriented and awakened with instructions for full recollection of memories.

Soberly she began, "I saw me fall. I've got the scar. You found it. I don't remember it. I just saw it in the crystal ball. Maybe the other things are true, too."

"First I'll tell you and then I'll tell my mother. Then I'll know. This is what I saw: I could say 'Daddy.' My father was holding me. He seemed to be awful tall. He was smiling. He had a funny looking tooth, a front tooth. His eyes were blue. His hair was curly. And it looked yellowish. Now I'm going home and tell my mother."

The next day she reported, "They were real memories. It shocked Mother. When I got home, I told her, 'I've found out what my father looked like. He was tall, blue-eyed (she and her mother were brown-eyed and five feet three inches tall), and curly-haired. It was almost yellow and he had a gold front tooth.' Mother was frightened. She wanted to know how I found him. So I told her about what we did. After awhile she said, 'Yes, your father was six feet tall, blue-eyed, yellowish-red curly hair, and he had a gold tooth. He left me when you were 11 months old. I'll tell you anything else you want to know now, and then let's not talk about it anymore. I know nothing about him at the present.'"

However, the patient's curiosity was satisfied. She was used subsequently for experimental work. Although she was given opportunities over a year's time to manifest further concern about her original problem, she seemed to have lost all interest in it.

## **PATIENT D**

This case history centers around an impasse reached during therapy and the utilization of a fantasy about the future to secure an effective resumption of therapeutic progress.

The patient suffered from a profound anxiety neurosis with severe depressive and withdrawal reactions and marked dependency patterns. A great deal of hypnotherapy had been done and her early response was good. However, as therapy continued, she became increasingly negative and resistive.

Finally, the situation became one in which she limited herself, during the therapeutic hour, to an intellectual appraisal of her problems and her needs, while rigidly maintaining the status quo at all other times.

A few examples will suffice to illustrate her behavior. For cogent reasons she could not tolerate her parental home situation, but she persisted in remaining in it despite actual difficulties and in the face of favorable opportunities to leave. She resented her employment situation bitterly, but she refused to accept a promotion actually available. She recognized fully her need for social activities, but she avoided, often with difficulty, all opportunities. She discussed at length her interest in reading and the long hours she spent in her room futilely wishing for something to read, but she refused to enter the library she passed twice daily, despite numerous promises to herself.

Additionally, she became increasingly demanding that the writer must, perforce, take definitive action to compel her to do those things she recognized as necessary and proper but which she could not bring herself to do.

After many futile hours she finally centered her wishful thinking upon the idea that, if she could achieve even one of the desired things, she would then have the impetus and firmness of intention to achieve the others.

After she had emphasized and reemphasized this statement, it was accepted at face value.

She was then immediately hypnotized deeply and, in the somnambulistic state, instructed to see a whole series of crystal balls. In each of these would be depicted a significant experience in her life. These she was to study, making comparisons, drawing contrasts, and noting the continuity of various elements from one age level to another. Out of this study would slowly emerge a constellation of ideas which would be formulated without her awareness. This formulation would become manifest to her through another and larger crystal ball in which she would see herself depicted pleasantly, happily, and desirably in some future activity.

She spent approximately an hour absorbedly studying the various hallucinatory scenes, now and then glancing about the office as if looking for the other crystal ball. Finally she located it and thereupon gave all of her attention to it, describing the hallucinated scene to the writer with avid interest.

It was the depiction of a wedding scene, that of a lifelong family friend, which in actuality was not to take place for more than three months. She saw frequent "close-ups" of herself and of the others. She described the wedding ceremony, the reception, and the dance that followed. She was particularly interested in the dress her image was wearing but could only describe it as "beautiful." She watched the dancing, identified some of the men with whom she danced, and named the one who asked her for a date. Over and over she commented on how happy she looked, and what a contrast there was between her appearance now and her appearance at the wedding.

It was difficult to get her to cease watching the scene of the wedding party, since she was so interested in it and because she was so pleased by her behavior in it.

Finally, she was instructed to keep all that she had seen in her unconscious and to have a waking amnesia for the trance experiences. Furthermore, it was explained, it would constitute a tremendous motivating force by which all of her understandings could be utilized constructively. She was then awakened and dismissed with a posthypnotic suggestion for continuance of the amnesia.

There were only two more therapeutic interviews, and both of these were limited in scope by the patient. Each time she stated that she had nothing to say until she had been hypnotized. Once this was done, she stated both times that she wanted instructions to remember in her unconscious very clearly all that she had seen and thought and felt as she watched the wedding scene. The desired instructions were given each time, and after about half an hour of silent thoughtfulness in the trance state she asked to be awakened and dismissed. At the second visit she terminated therapy.

She was not seen until several days after the wedding, three months later.

Then she entered the office without an appointment and explained, "I've come to tell you about Nadine's wedding. I have an odd feeling that you know all about it and yet don't know a thing. But I do know that I have to give you an explanation for some reason."

Her explanation was that she and Nadine and the bridegroom had been lifelong friends and that their families were intimate friends. Some three months ago, following a therapeutic session, she had felt impelled to discontinue therapy and to devote her energies to getting ready for that wedding. When she was asked to be a bridesmaid, she decided to make her own dress. This had made it necessary to get promoted at work so that she would have better hours. Additionally, she had taken an apartment in town so that she would not lose a total of three hours going back and forth from work. She had gone on shopping tours with various friends to help select wedding presents, and she had arranged for "showers" for the bride-to-be. All in all she had been exceedingly and happily busy.

She described the wedding scene, the reception, and the dance. She was decidedly startled when the writer asked if she had danced with Ed and if he were the one who asked her for a date. She answered in considerable bewilderment that she could not

understand, since she had not mentioned his name, how the writer could ask such a specific question. However, she had danced with Ed but had forestalled his request for a date since she considered him not to be up to her standard. However, she had accepted a date from another dancing partner.

Finally, she was reminded of her original purpose in seeing the writer. Her reply was simply, "I was a pretty sick girl when I first came to see you; I was horribly mixed up, and I'm grateful to you for getting me straightened out in time so that I could get ready for the wedding." She had no awareness that her preparations for the wedding constituted her recovery.

She has been seen occasionally since then on a casual basis. She is happily married and the mother of three children.

## **PATIENT E**

In this case history the patient was not interested in therapy and did not know that she needed therapy, but she was interested in hypnosis as a personal experience that might be enjoyed. Very early in hypnotizing her the realization was reached that, despite her seemingly good adjustment, therapy was seriously indicated.

She was a 19-year-old student nurse of good intelligence, pretty, vivacious, likable, but annoyingly flippant in her general attitudes. She proved to be an excellent somnambulistic subject and interested in experimental hypnotic work. However, it was soon discovered that she had a mild avoidance phobia for water fountains and flower vases. Hypnotic exploration of this rapidly disclosed other items of psychopathology, which she confirmed in the waking state. Among these were the following:

1. She had learned to swim well when she was about 10 years old. However, for some unknown reason she had not been able to swim for at least the last five years. Yet, each season she would go to the lake to swim, don her bathing suit, and walk expectantly down to the shore. As her feet touched the water, she would turn and run away screaming, as a result of a sudden, unexpected impulse. Several hundred feet away she would gain control of herself and embarrassedly walk back to the shore, fully expecting to swim, but only repeating her previous uncontrollable impulsive behavior. Yet each time it occurred, she did not believe it would happen again.
2. She would accept an invitation to go to the theater with some young man. Once inside, she would slip away from her escort and then leave by a side entrance and go home alone. Or if she went to dinner, she would, at the close of the meal, excuse herself to go to the rest room and either wait it out there until her escort left in disgust or she would depart by a back door.
3. Her attitude toward marriage as a possibility for herself was one of bitter intolerance. So intense was her hostility on this topic that she would not discuss it except to declare that this was her "normal" feeling and that she had no particular reason for disparaging marriage so completely.

4. There were a number of other items of psychopathology, but these were not discovered until after therapy had been accomplished.

When the question of therapy was raised with her, she agreed to it provided the therapy were limited to the correction of her swimming problem. She did not realize that therapy in that regard might correct other maladjustments.

Treatment was initiated by training her fully as a hypnotic subject. This she enjoyed, but she was really interested in therapy. Age regression was employed extensively with her, and a series of traumatic, deeply repressed memories were recovered and the experiences relived by her.

Some of these were as follows:

1. When she was about five years old, she and her two-year-old sister were playing about a washtub full of water, while the mother was out of the room. The sister fell into the tub, and the patient struggled to pull her out while screaming for her mother. When the mother came, she rescued the baby, who had "turned blue," and finally spanked the patient most severely "for pushing sister in the water."
2. At about the same period the sister, while sitting in the high chair at the table, managed to tip herself over. The patient rushed across the room with arms outstretched to rescue her. She arrived too late and just as her mother entered to see the patient's outstretched arms and the toppling chair. Again she was severely punished.
3. When she was about six years old, a neighbor volunteered to teach her to swim. This neighbor believed that a child's fear of water is best cured by complete immersion. The patient became extremely frightened, fought, screamed, and bit. Her "misbehavior" resulted in another spanking.
4. At about this same age a neighbor died and the patient was sent to the grandmother's house while the mother attended the funeral. That night the patient returned home and was awakened by her father's coughing (he was bedridden and slowly dying of pulmonary tuberculosis). Distressed by the coughing, she aroused her mother and explained that she wished her father would die. Without seeking the patient's reasons for this wish (when people die, you go to Grandmother's and get cookies and candy, and Daddy likes cookies and candy, so why can't he die and go to Grandma's?), the mother punished her severely.
5. When she was about eight years old, contrary to her mother's orders, she tried to cross a creek on a fallen log used as a footbridge. She slipped, fell, and saved herself by embracing the log. After much screaming on her part, she was finally rescued by her older brother, who subsequently intimidated her by threats of reporting the escapade.
6. When she was about 12 years old, she and her sister, both having learned to swim well two years previously, went swimming. The water was cold and the sister became cyanotic but refused to leave the water despite the patient's frantic pleading and crying.

7. Because of the above experience, she had later refused to go swimming with her sister and brother. He had forcibly dragged her into the water. She fought him so furiously that they "both nearly drowned." She could not remember ever again swimming.

Although the patient relived these various experiences with vivid emotional intensity in the trance state, she protested that they had been forgotten events. Therefore, they ought to remain forgotten, and she declared emphatically that she would not remember them when she awakened.

Furthermore, she demanded that the writer begin therapy on her swimming problem immediately, doing this in a "subtle" way so that she would not suffer any more emotional stress. Efforts to correct her attitude while she was still in the trance were futile, as proved to be the case when she was awakened.

At the next interview the patient was definitely hostile. She declared that she had lost her interest in experimental hypnosis; she was interested in prompt and immediate correction of her "swimming problem and nothing more." In the trance state she confirmed this attitude but was much less hostile. She also declared that she did not want to remember consciously any of the memories previously recovered in hypnosis, since they had "once been forgotten and might as well stay that way."

Accordingly, her demand was accepted, and she was assured that all efforts would now be directed as she wished.

She was then disoriented for time and reoriented approximately three weeks into the future. Immediately she was told that, since therapy had been terminated the first part of June and it was now the latter part, one thing remained to be done. This task was that of "putting into effect the therapy that had been done." The opportunity to do this, in fact, was rapidly approaching. Her vacation would occur in the latter part of July and the first part of August. Therefore, it would be well to plan how to utilize that vacation to establish her therapeutic gains on a reality basis.

Thereupon, collaboratively, she and the writer devised the following plan. She would spend the vacation at a summer home on a lake well known to her. She was to purchase a new bathing suit and a small waterproof silk bag large enough to hold a package of cigarettes and matches. This bag would be carefully attached to her bathing suit for the first two days, if necessary, but would probably be dispensed with in much less time.

The cigarettes and matches would now be presented to her, a package of Lucky Strikes [Ordinarily she refused to smoke other than her own particular brand of cigarettes.] on which the writer would, in her presence, inscribe, "This really is a lucky strike." These she would now put into her handbag with the matches slipped into the cellophane wrapper, and she would keep them hidden from her conscious mind until the time came to use them.

At the lake, and in the form of posthypnotic behavior, she would attach the waterproof bag containing the cigarettes and matches to her bathing suit. Then, consciously, she was to stroll down to the beach, speculating about sitting on the raft and wondering whether she would sit facing out over the lake or facing the shore.

Once on the raft she would experience an overwhelming desire for a cigarette. While wishing for one and dangling her feet in the water, she would "accidentally" discover the waterproof bag and explore the contents. She would be so delighted that she would immediately light a cigarette and only while puffing it would she begin to wonder where they came from. Examination of the package would lead to the discovery of the writing on it. While she pondered its meaning, she would finish the cigarette, toss the butt into the water, and strike out for shore, still puzzled about the inscription.

Upon reaching shore, she would realize that she had left the cigarettes on the raft, and she would turn and strike out for the raft again. Upon arriving at the raft, she would be hungry for another cigarette and would smoke again.

As she smoked, she would suddenly remember completely everything that had happened since she had donned her bathing suit.

The patient listened attentively to these elaborate instructions and comprehended readily what she was to do. Then, while she was still in the trance state, she was "disoriented" for "the latter part of June" and projected in time to September in the situation of entering the office.

She was asked, "Well, what really happened on your vacation?"

Her narrative was essentially as follows:

When I started to get undressed to put on my suit, I had an awful time. I was so absentminded. Then, when I went down to the beach, I was wondering why nobody was on the raft, and I decided to sit on it. The next thing I was ravenous for a cigarette. Then everything happened just as you said last June. I smoked a cigarette and struck out for shore, but then I had to go back and get my cigarettes. And then I started to remember everything about undressing and getting that silk bag fastened to my suit and thinking about the raft and swimming out there twice. And then I knew I was over my swimming problem and I really enjoyed swimming every day.

Now I'm back at work and everything is swell.

She was reoriented to the current time and emphatically instructed to obey, to the last detail, all instructions that she had ever, at any time, been given when in a trance state. With equal emphasis she was instructed to keep all unconscious knowledge from her conscious mind. This must absolutely be done until such time, if it ever did occur, that both she and the writer independently would approve of her conscious awareness of

things unconscious. This instruction, in accord with her previously expressed attitude, she accepted most readily.

She was awakened and dismissed. The cigarettes and matches had been carefully wrapped in tissue and concealed in her handbag.

She was seen again in September. She entered the office with a merry laugh and declared:

Well, you already know everything that happened on my vacation. It all happened just as you said. By the end of my vacation I got so puzzled by everything that I sat down one day and deliberately remembered everything. It was so confusing because I started with the appointment I had with you in the first part of June. I really had a lot of trouble getting straight about "the last part of June," and then "September," and making them both fit into the real time. Puzzling that out was a job, but I got it straight. You ought to try to think a thing out like that. At first, the last part of June and September were just as real as any other memories. I knew they couldn't be so, but they were real and it was a terrific job, but exciting and interesting.

But when I got them straightened out, I could see them as ideas that I had for the future, and then I was straight in my mind. That's when the real merry-go-round started. That's when I started to remember everything that happened since you began to work with me—all those things you dug out of me. If you had as much fun digging them out as I had remembering them and putting them together to make sense, I won't have to apologize for being so stubborn.

The whole thing went pretty fast. I puzzled all morning one day, and then after lunch I really sat down and started my think-trap going, and by dinnertime I had everything straight.

That first September report wasn't right in some things. What really happened started in June, after that trance that really started things. I started getting ready for my vacation, and the first thing I had to do was to get a bathing suit. I was looking for a special suit, but I didn't realize it then. I didn't know it was blue.

Then I had a job finding a waterproof silk bag to send overseas to someone—I hadn't really made up my mind who, so I couldn't send it after I got it. Then I misplaced my handbag. Every time I found it again, it got misplaced again. The last place I found it was in the suitcase I took to the lake. I can remember now all the tricks my unconscious played on me to keep those cigarettes hidden from my conscious mind.

Well, the rest at the lake was like you said, except that when I was hanging my feet in the water on the raft, I kept worrying about the toenail polish coming off. But the rest was like you said. But I kept wondering what happened to me because I was enjoying the swimming.

But that isn't all. After I remembered all those other things you dug out, I knew I could handle them, but I didn't know what I was going to do. I had to wait till I got home.

I'll tell you them now, all except one. I'll tell you that next time.

She continued:

For years and years I have wanted to take a hot soak in the bathtub. I always filled the tub full and then I would step in, pull out the plug, and take a shower. It always made me so mad, but I did it every time. And if there wasn't a shower, I'd just stand in the tub and sponge myself. Now I can take a tub bath.

Another thing! I can drive a car now. I had to give it up because I got in the habit of shutting my eyes and speeding up, sometimes in the city, sometimes in the country. Remember the footbridge well, I always did that to cross bridges, but I just realized that up at the lake. Now I don't shut my eyes to drive over a bridge.

Those poor guys that dated me and took me out! That neighbor that took me out in the water and wouldn't let me come back and ducked me. Well, I let those poor fellows take me out and I made sure I got back.

And Sis and the high chair! You couldn't hire me to stay in a place where there was a baby in a high chair. Some of the nurses invited me to their homes for dinner, and after I got in the house I just walked out. I didn't know why then. Now I can visit people who have babies in high chairs.

And Sis getting blue when she was a baby and then when we went swimming that time. I've never worn anything blue because of that, and it's becoming to me. First the blue bathing suit and now this new outfit I've got on.

And I've joined the church. I always wanted to go but couldn't stand being in a church. I even took my training in a Catholic hospital because I'm a Protestant and I wanted to be sure to keep away from church. But just because they have funerals in church doesn't stop me. There are a lot of other little things, but you get the general idea. What I don't understand is how I kept all this in my unconscious and made everything so tough for me. How can a person be so stupid and so stubborn? But I suppose you're going to call me stubborn now because I'm not going to tell you the most important thing that happened. But I'm not really stubborn because I've got a good reason this time, and I'm going to tell you the next time I see you.

She was not seen again until mid-October. As she entered the office, she said:

I'm ready to tell you, but first I've got to explain a little. Mother had it awful hard when we were kids—looking after us, taking care of Father, earning a living for us. I thought that marriage was horrible, just trouble and work and heartache, and that husbands were always sick. I just never straightened out that idea. So last month I visited Mother and had a long talk with her. I didn't tell her those things you dug up out of my unconscious; we just talked about when the kids were little and my father was sick. She really loved Father, and she doesn't think she had it so hard. I wish I'd had enough sense to get her ideas before, instead of keeping my kid ideas in my unconscious. So I told her about Joe, how we're going steady since I got back from vacation. She was very pleased when I told her I was going to get married some time next year. She never did like nursing for me, and now I wonder why I took it up—my father, I suppose. But now I want a home and kids and a husband. So now I'll introduce you to Joe—he's waiting outside.

The young people were seen casually on several occasions before their marriage. When their first child was about a year old, a visit was made to them, and at this time the mother was met.

During the course of that visit the mother, who knew that her daughter had been the writer's patient and had been hypnotized, expressed an interest in being hypnotized also. Immediately the daughter was asked if she had ever given any account of her hypnotic experiences to the mother. This was disclaimed.

The mother proved to be an unusually good subject and responded readily to age regression. She was regressed to the time, "when your daughter was between four and a half and six years old, at which time something may have occurred that frightened you and her very much."

Among the things elicited was a similar account of the washtub episode. The patient's age was given "as almost two months past her birthday." Similarly, a comparable account was obtained of the high chair episode. The patient was then about five years and nine months old.

The swimming lesson by the neighbor and the funeral episode were both adequately confirmed, including the midnight spanking for the "death wish."

The fallen log footbridge episode apparently was not known to the mother, but she did relive an episode, when asked to be sure to speak to her daughter about something on the west side of the house, of anxiously cautioning the patient "never, never walk on that tree that fell across the creek in that bad windstorm."

The mother was awakened with instructions to remember fully what had happened in the trance. She was tremendously startled by the recovery of these memories, and she, her daughter, and the writer spent a considerable period of time discussing those past experiences. The mother showed good capacity to understand, and she was relieved to know that the "death wish" was something entirely different.

Some months later the mother was seen again. The purpose of her visit was to find out if there were any other things that she had done that she ought to talk over with her daughter. She was hypnotized and told that she could remember freely and comfortably and discuss anything of actual interest to her daughter whenever the occasion arose.

A social telephone call from the daughter some months later disclosed that the two of them had been reminiscing happily and contentedly and that she had a very pleasing recollection of her childhood.

The patient's adjustments have remained good. Her relationship with her mother has continued to be happy, and she is very much interested and contented with the raising of her two children.

### **GENERAL COMMENT**

Perhaps the first discussion of these therapeutic experimental procedures should concern how fantasied accomplishments could have proved such effective measures of therapy. We all know, from common experience, how easy it is to fantasy great deeds, and how far short fall the endeavors in reality. The fantasied story is such a masterpiece until it is set on paper, and the beautiful painting, so clearly visualized in the mind's eye, becomes a daub when the brush is applied to the canvas. However, it must be borne in mind that *such fantasies as these are conscious fantasies*. Thus, they represent accomplishments apart from reality, complete in themselves, and expressive, recognizedly so to the person, of no more than conscious, hopeful, wishful thinking.

*Unconscious fantasies*, however, belong to another category of psychological functioning. They are not accomplishments complete in themselves, nor are they apart from reality. Rather, they are psychological constructs in various degrees of formulation, for which the unconscious stands ready, or is actually awaiting an opportunity, to make a part of reality. They are not significant merely of *wishful desire* but rather of *actual intention* at the opportune time. Thus, one can endeavor to record a fantasied story on paper, but its merit may derive from the "sudden flashes of inspiration that come unbidden to the mind." Or an author may consciously endeavor to write a novel and find that his characters "do not behave but run away" with him.

In these case histories extensive emphasis was placed upon fantasies concerning the future, and every effort was made to keep them unconscious by prohibitive and inhibitive suggestions. . By so doing, each patient's unconscious was provided with a wealth of formulated ideas unknown to the conscious mind. Then, in response to the innate needs and desires of the total personality, the unconscious could utilize those ideas by translating them into realities of daily life as spontaneous responsive behavior in opportune situations.

An experimental illustration of this may be cited. A normal hypnotic subject who disliked ostentatious display of learning and who spoke only English was taught in a deep trance

to recite "Die Lorelei." This was done as a seeming part of an experiment on memory that was being completed and without informing him that he was learning a poem or that it was in German. A posthypnotic amnesia for this task was then suggested.

About two weeks later at a social gathering, through prearrangement, a colleague of the writer's offered to entertain the group by singing and reciting variously in Polish, Austrian, Italian, French, and Spanish. After listening with increasing displeasure, the subject remarked, "I can talk in nonsense syllables, too," and proceeded to recite "Die Lorelei." To his full conscious understanding, the subject's utterances were no more than nonsense syllables spontaneously offered in the immediate situation. Rehypnosis was necessary to convince him otherwise.

This experiment differs from the case histories in that future possibilities in a life situation were not a part of the experimental situation. Rather, the subject's unconscious was provided with special learning, and then, later, an opportunity was created in which that special learning could become manifest in response to inner personal needs.

For the patients, special understandings for the future were developed in their unconscious minds, and their actual life situations presented the reality opportunities to utilize those ideas in responsive behavior in accord with their inner needs and desires.

The fashion in which the patients made their fantasies a part of their reality life was in keeping with the ordinary natural evolution of spontaneous behavior responses to reality. It was not in compliance with therapeutic suggestions, nor did it seem to derive even indirectly from anything other than the patients' responses to their realities. Furthermore, their behavior was experienced by them as arising within them and in relation to their needs in their immediate life situation.

Thus, Patient A vaguely wondered about his next appointment with the writer and acted on a sudden impulse to ask for a raise in salary, which, in turn, led to a series of events. Patient D did not leave the parental home for the cogent reasons she had discussed with the writer but because she wanted to make a dress she wished to wear. And Patient E responded to her fantasies by searching blindly for a bathing suit that met unconscious needs related to her distant past. So it was with the other two patients.

The kind of fantasies by which the patients achieved their goals is of marked interest and significance. They were not of the elaborate, grandiose type that one commonly has when fantasizing consciously about one's wishes. They were fantasies in keeping with their understandings of actually attainable goals. For example, Patient A was pitifully modest in wishing for "just fair" health. Nor did he think of winning a fight, but hoped to be able to "take a licking like a man." Patient B's thinking did not center around visions of receiving one promotion after another but dealt with the humdrum realities of packing and moving. Patient C validated her fantasies in terms of a reality scar, and her father was just a man with a "funny-looking tooth." And Patient D saw herself in her fantasy not as a star in the entertainment world but as a happy guest at a friend's wedding.

So it was with all the fantasies about the future experienced by these patients. There was no running away of the imagination, but a serious appraisal in fantasy form of reality possibilities in keeping with their understandings of themselves.

To speculate upon the question of why and how "time projection" proved to be an effective therapeutic measure for these patients is difficult. One can hardly do more than to draw parallels with experiences common in everyday life. For example, advertising and salesmanship extensively utilize appeals that stimulate fantasies of the future. An example more closely comparable to the above case reports is that of writing, after much indecision, a letter accepting a new position. Once it has been written, even though not yet mailed, there develops immediately a profound feeling that the die has been irrevocably cast. There results then a new psychological orientation of compelling force, effecting a new organization of thinking and planning. The writing of the letter constituted an initiation of action, and, as was mentioned earlier, an action once initiated tends to continue.

For these patients, apparently, the establishment of a dissociated state, in which they could feel and believe that they had achieved certain things of benefit to them, gave to them a profound feeling of accomplished realities which, in turn, resulted in the desired therapeutic reorientation.

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<sup>1</sup>Essentially, this is a simple though detailed technique of suggestions by which the deeply hypnotized subject is reminded of the current date; told that the seconds, minutes, and hours are passing; that tomorrow is approaching, is here, and now is yesterday; and that as the days pass, this week will soon be over and then all too soon next month will be this month. Particular attention must be given, in using this technique, to be most accurate in verbalizing the transition from the future to the present to the past, and to do it easily and gradually without rushing the subject.

<sup>2</sup>The date for the patient, as a consequence of preceding waking and trance discussions, would necessarily be several months in the future. Such future dates are best selected by the subject, since the hypnotist might choose one inauspicious for the situation. Also, the selected period of time should not be too exactly defined. For example, if an actual future date, such as the next birthday, is desired, the orientation should be to "some days before your next birthday." Then it becomes a simple matter to let the subject define the date progressively more exactly. When the actual future date is unknown, having the subject glance out of the window and describe what he sees may indirectly reveal the time of day, the season of the year, and the location. Thus, one subject described the noonday Christmas shopping rush in a distant city.

<sup>3</sup>Constant alertness must be exercised to prevent any undue thinking that might break down the established psychological orientation.

<sup>4</sup>Therapeutically there was no reason for the patient to think otherwise. In final analysis the outcome did derive from the opportunity for a new job.

# **Facilitating Objective Thinking and New Frames of Reference with Pseudo-Orientation in Time**

Milton H. Erickson

Unpublished manuscript, circa 1940s.

*Note: This study was never published, but the fragmentary notes on the cases presented at the end of this paper are part of the clinical data the author was collecting for it. The paper mentioned, "Unconscious Insights" is indicative of the author's interests and initial hypnotherapeutic orientation at that time.*

A common, repetitious learning of everyday life is the frequent, marked discrepancy between anticipation and realization. The value and significance of hopes and wishes, upon becoming realized, so often prove to be quite different from what was originally expected. This is particularly true in situations centering around emotional problems. There is a natural tendency to overemphasize the importance of immediate understandings and subjective attitudes in preference to a thoughtful, objective consideration of eventual probabilities and possibilities.

This common experience of daily life has been utilized extensively by this author for many years as the basis for a special therapeutic technique in the handling of a wide variety of emotional problems that have been experienced by the patient as too difficult to evaluate satisfactorily. In essence, this technique is not new—the author has published previously on experimental therapeutic methods employing basically similar principles. Its central feature is the instruction of the patient, hypnotized and pseudo-oriented in time, to view the problem for which therapy is being sought as one deriving from the remote, recent, or immediate past, the current situation, or the impending near or remote future. In this way the pressing emotional urgency of the actual current situation can be altered by the interjection or interpolation of a sense of perspective in time, thereby creating an opportunity conducive to more comprehensive and objective thinking. In this regard, one need only call to mind such familiar plaintive utterances as: "I knew all the facts even then, and I should have foreseen this outcome; if only I could do it all over, I'd do the same things but for entirely different reasons and with such different results." And, "If only I could have known for sure, or just had the feeling that it was going to happen, I could have changed my feeling so easily."

This comprehensive, objective viewing of stressful matters is thus carried out against suggested backgrounds of various possible understandings. Ideally, objective thinking is possible in the ordinary waking state, but emotional stress is likely to constitute a serious interference, if not an actual barrier. In contrast to the functioning of the ordinary state of conscious awareness, hypnosis permits a dissociation of ideas and attitudes in one relationship and a vivification and intensification of others in another relationship, thereby facilitating a much more effective examination, identification, and evaluation of

wishes, fears, beliefs, and understandings. In this way clear comparison of intrinsic values, a resolution of conflicts, and an integration of understandings can be more readily effectuated.

This technique was in part developed from an experimental therapeutic study conducted in the early 1930s and published under the title "Unconscious Insights." It is also essentially a narration of the technique described in "Pseudo-orientation in time as a hypnotherapeutic procedure" (Erickson, 1954). The actual procedure is rather simple. Upon inducing a medium or deep trance, suggestions are offered to effect a dissociation from the immediate environment and then to emphasize the unimportance of the identity of the day of the week and then of the month, culminating in an amnesia for time, place, and situation, but with an awareness of the general identity of the self.

### **Clinical Data (Fragmentary Notes)**

*Edward and Jean:* A childless couple, content to be childless. His mother lived with them, dominating the household completely. Jean finally rebelled and gave Edward his choice between kicking his mother out or divorce. Edward sought counsel.

Techniques of unconscious insights employed in both directions. His discovery of a desire for paternity. The ejection of his mother. Reconciliation. Two children.

*Walter and Willa:* Incessant quarreling for six years, with threats and counter threats of divorce. Weekly visits by her parents. Weekly dinners at her parents' home. Walter finally rebelled and "laid it on the line." Willa seen as patient. Solution: Weaning from the parents and several additional pregnancies.

*Howard and Margaret:* Children grown. No desire for further family. She was only 35. Both decided on a vasectomy and both came for counseling. Her unconscious fears of his infidelity. His unconscious fears of infidelity. Consideration of salpingectomy is rejected. Decision for contraception.

*Marie and Ralph:* His infidelity. Guilt and confession. Her desire for revenge. Her request for counsel and her own discovery of a profound sense of guilt.

*Dr. B:* Sought counsel concerning vasectomy. He and his wife were content with one child. They wanted no more. In the trance state he recognized his definite, though unformulated, ideas of infidelity. Also, he discovered serious fears of the consequences and a feeling that a divorce would result.

Without disclosing his fears to his wife, he raised the question of vasectomy vs. salpingectomy. He rejected her offer, rejected his trance learnings, underwent vasectomy, was eventually divorced for the reasons originally feared.

*James and Joyce*: Ages 23 and 22. Married when she was 16. Four children by the age of 22. Much debate between them regarding vasectomy vs. salpingectomy. Salpingectomy rejected. Vasectomy accepted and counsel sought by both. Both rejected unconscious insights. Divorced three years later.

*Charles and Carol*: Both aged 25. Both only children. Both resolved to have no children. Both rejected contraception. Sought counsel regarding vasectomy or salpingectomy. Unconscious insights confirmed five years later by several pregnancies.

*Albert and Janice*: History of 11 miscarriages. Majority between the second and third month. Much bitterness and resentment and depression. Salpingectomy proposed. Consistent rejection in the trance state. Five successful subsequent pregnancies.

*Leon*: Aged 38. Chronic alcoholism. Wanted to know his future. Unconscious discovery of homicidal attitudes. Twelve years of sobriety.

*Joe and Ann*: Ann, university graduate. Joe, grade school education. Counsel requested concerning advisability of marriage. Unconscious insights approved.

*Jack and Jill*: December and May situation. The man's unconscious insights objected.

*James and Patricia*: The prospective bride requested counsel regarding a premarital sex relationship. Invariably rejected premarital relationships in the trance state.

*Phil and Nancy*: Marriage counseling for mixed racial marriages and mixed religions.

## **Self-Exploration in the Hypnotic State**

Milton H. Erickson

Quoted from the *Journal of Clinical and Experimental Hypnosis*, 1955, 3, 49-57.  
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### **INTRODUCTION**

This brief study is reported in detail for a number of reasons. It is an account of a classroom experiment proposed and executed by a medical student as an intellectual project for classroom purposes. Actually, it was an unconscious seeking by the student for specific psychotherapy in the guise of an intellectual effort.

The fashion in which the proposed task was to be done, apparently to illuminate the intellectual aspects, served in reality to define the manner in which the student wished unknowingly to achieve his therapy.

While every effort was made to avoid giving the student assistance, other than that of creating a favorable situation, various suggestions were nevertheless seized upon by him to develop his task.

The results obtained by the student serve to illustrate with remarkable clarity:

1. The obvious but unrecognized unconscious motivations and needs served
2. The separateness of unconscious and conscious memories
3. The actual possibility of dissociating the affective and the cognitive elements of a traumatic experience
4. The process of the transfer of memories from the unconscious to the conscious mind
5. The extensive effects of a single, deeply repressed traumatic experience upon the personality and the comprehensive changes achieved upon its reintegration into the experiential life of the person
6. The numerous minor clues, given during the task performance, highly informative of the significances involved

### **STATEMENT OF EXPERIMENTAL PROBLEM**

One of a group of medical students being trained in hypnosis had shown an almost compulsive-obsessional interest in psychiatry and had studied avidly on the subject. He early volunteered to be a hypnotic subject for the group but had placed a restriction on his role as a subject by declaring that no intimate or personal questions be put to him. He proved to be easily trained and most capable of developing complex hypnotic phenomena.

After some weeks work with the group, at the beginning of one session this student announced his wish to raise a special question for the evening's work and discussion. This question he

explained as follows: People normally forget many things and hence do not know that they have forgotten them. These things may be only of past significance, or they may be of actual present but unknown and unrecognized significance. They may be of a minor or a major character and importance. And they may be of a traumatic or a nontraumatic nature.

Therefore, would it be possible for a person to set himself the task of remembering some definite but actually long-forgotten event and to recall it vividly and comprehensively?

The reply was made that this question was worth investigation and that he could retire to the next room for half an hour and really work on recovering some completely forgotten memory of his own. He replied that he had been thinking about the question off and on for the past week without formulating any ideas, but he would be glad to devote an intensive half-hour to the subject.

During his absence the question was discussed with the other students. At the expiration of half an hour he was summoned. He explained sheepishly that the task of attempting to remember something that was completely forgotten and that had occurred at a time and in a situation that could not be recalled was as futile a task as trying to describe some totally unknown place. He had, however, recalled many things, but these were not forgotten things, but merely things he had not thought about for varying lengths of time.

The suggestion was offered that he *might* spend the next half-hour endeavoring to recover a forgotten memory of something that had occurred previous to his tenth year and about which he had not even thought for at least 15 years. (All emphasis in this suggestion was placed upon the word *might*, thereby rendering it a permissive suggestion, offering only a general concept of possible time periods.)

Half an hour later he reported that the task was even more hopeless than ever. He had recalled innumerable things, but they were memories about which he had had no occasion to think, and they did not constitute recoveries of forgotten things. He then raised the question of whether or not he could be given the same task in a hypnotic trance. He was answered that he could be given the task, but he would have to discover for himself whether or not he could perform it. He agreed to that stipulation.

He was hypnotized deeply and instructed to review mentally his question and his two half-hour efforts and to spend at least 10 minutes considering the feasibility of the task.

After 10 minutes he stated that the entire problem still looked hopeless to him.

Still maintained in the trance state, he was asked if he wanted any help or guidance, and he replied that any assistance would vitiate the purpose of the effort, since such assistance would direct and aid in memory recovery, and it was his desire to see if such a memory recovery could be effected by a person in either the waking or the trance state and accomplished solely by personal efforts in mental searching.

He was told that he would be given no aid but that certain general remarks could be made to him which would give him more opportunity to do the task. Hesitantly he agreed to hear the remarks, but upon hearing them, he accepted them readily. These remarks were offered to explain the following matters. Since he was in a somnambulistic trance and usually manifested catalepsy, it

would serve no purpose either to maintain or abolish catalepsy, which was only an incidental part of his trance state and not an integral part of the proposed task.

Therefore, in performing his task, no incidental item of behavior such as catalepsy should be permitted to interfere with his efforts. Also, since he usually kept his eyes open in the trance state, that behavior item should be regarded in the same manner as the catalepsy.

Since he would be doing his task in the presence of the group, he should recognize it as solely his task in which nobody else had a part; it would be well to limit himself to his task without including any member of the group by any response of any sort. In other words, he was essentially to isolate himself from the group.

Inasmuch as the forgotten memory belonged to him, it should not be shared in any way until he had an opportunity to consider that sharing as a distinctly separate problem. Hence, his task should be a mental performance reoccurring within himself. Additionally, it would be necessary for him to keep in mind that, for example, when the task was done, it would be desirable for him to establish contact with the writer to give instructions about awakening him, or for any other contingency that might arise. Then, too, he might want instructions about what to do with whatever results he secured. Therefore, he could, at any needful time, address inquiries or remarks to the writer.

After these remarks had been repeated to him to enable him to think them over thoroughly, he asked, "How do I start?" The reply was cautiously given, "It is your task. You will start by waiting until I announce the time and as soon as I do, you will begin in your own way."

While waiting for the time announcement, he stated, "I'm going to look for a forgotten thing just as I said before. It should be something like you said that maybe happened before I was 10, and it should be something I haven't even thought about for at least 15 years. I think that is a reasonable problem."

## **THE EXPERIMENTAL PROCEDURE AND RESULTS**

The time of 7:30 P.M. was announced. He settled himself in a chair, still in a deep trance, bowed his head, and closed his eyes.

At 7:50 P.M. he called, "Dr. Erickson, I have a feeling that I am getting something, but I don't know what it is. But I am curious." Reply was made, "Thank you for telling me."

About 10 minutes later he asked if it were warm or cold. Reply was made, "I find the temperature comfortable."

About five minutes later he announced, "I'm getting scared, awful scared, but I can't think of anything." No reply was made.

Within a few minutes he presented a distressing picture of indescribable terror that seriously alarmed the medical students. Falteringly he gasped, "I'm scared, a I'm going to get sick. But I don't know why. Tell me to rest."

He was told, "Stay just where you are in your mind, but rest a few minutes."

Immediately he relaxed and declared, "I am terribly scared, but I can't remember It is the awlfullest feeling. I think I am going to get sick. Don't let me get sick."

He was told, "I do not know what you are doing. Getting sick might be part of it. I will not tell you how to do your task."

To this was added, "Do you want to wake up and rest or just rest in the trance with your gears in neutral, the engine just idling, neither going ahead nor backing up?"

He answered, "Just as I am."

A few minutes later he asked the time, and as it was stated, the look of intense terror reappeared; retching but no vomiting developed. His breathing was labored and spasmodic, his hands clasped and unclasped convulsively, and he seemed about ready to collapse.

Suddenly he gasped, "Rest."

Immediately he was told, "Hang on but rest."

Again he relaxed and declared, "It's too big, I can't do it. Tell me how." He was told, "I can't tell you how, but I can offer a suggestion. You say it's too big. Why not do it a part here, a part there, instead of the whole thing at once, and then put the parts together into the whole big thing?"

He nodded his head, asked the time, and again manifested, as the time was stated, intense emotions of varied types. *Rage, terror, grief, fear, hatred, hysteria, sickness, despair, bravado, shock, horror, agony* were the words written down by the students as they watched him and recorded their interpretations of what they saw manifested by him, and the writer was willing to agree with them.

Finally, a state of what appeared to be stark terror developed. His face was contorted, his hands were tightly clasped, his jaws were clenched, his breathing was labored, his neck muscles were taut, and his body was rigid.

After about two minutes he shuddered, relaxed, sighed, and said, "Rest."

Asked how he wished to rest, he answered, "I've got started. I've got the feelings. I don't know what the memory is. Wake me up and let me rest, and then hypnotize me and just tell me to finish the job. I still got the whole thing to do yet. But I got to rest."

He was awakened with instructions to rest and to have a comprehensive amnesia for what had happened in the trance. He awakened, wiped the perspiration from his face, remarked that he must have eaten something that disagreed with him because he felt sick to his stomach, wandered about the room opening windows, remarking about the heat, and added that he hoped to learn something if the writer would start discussing the question he had propounded. Thereupon he

returned to his chair, sat down, but jumped up and asked one of his classmates what the assignment was in dermatology. Without waiting for an answer, he started a casual conversation with another student.

After about 10 minutes he returned to his chair, sat down, looked expectantly at the writer, and developed a deep somnambulistic trance.

He was told, "You said just before you took your rest, 'I still got the whole thing to do.' The time is now nine o'clock."

He closed his eyes, a look of interest appeared on his face, then one of amusement. Many head movements were made, as if he were looking from side to side. This lasted for a few minutes, and then his head movements became jerky and his hands and arms moved slightly in a jerky fashion. Suddenly a look of anger appeared on his face, followed by a short jerk of his body. Then he stiffened in his chair, his face contorted, his hands clenched, and his biceps contracted. There followed then a tremendous variety of facial expressions as described above, with much jerking of the head from side to side and twisting of his body.

After about 10 minutes of this he slumped exhausted in the chair and gasped, "Rest." Immediately he was told, "Stay where you are in your mind and rest."

He relaxed and declared, "I'm through. I did it. But I don't know what to do now. You got to tell me or I'll forget it all over."

He was answered, "I can give you some suggestions. Listen carefully. I think you have recovered a long-forgotten traumatic memory. [He nodded affirmatively.] You know it now in your unconscious mind. You do not know it in your conscious mind. Keep it fully remembered in your unconscious mind. I will awaken you and let you find out for yourself if you want to know it consciously. Is that all right?"

Since he nodded his head affirmatively, he was told to awaken with only a conscious amnesia and to rest awhile. Then the writer would discuss matters.

He awakened, complained of feeling "horribly washed out," "sick," "tired," and "like I just took an awful beating."

He added, "I'd swear that someone had just been kicking me around and punching me. My gluteals feel like they've been kicked. And my ribs hurt. I feel as if Joe Louis had given me a workover."

He went out to the water fountain, took a drink, returned, asked the same student about the dermatology assignment, and again did not wait for an answer. He wandered about the room, began and interrupted conversations, and was exceedingly restless.

Finally he sat down and remarked that it was getting very late, that the writer ought to discuss the question he had propounded at the beginning of the evening.

The writer began by summarizing the question he had raised and then went on to state that such a forgotten memory as he proposed to discover would probably be a rather deeply repressed

memory. Hence, there was a good probability that the repression would derive from a traumatic character of the memory. Therefore, recovery of such repressed memory would entail a lot of distress, pain' and actual misery. Furthermore, self-protective tendencies would make such recovery slow and difficult.

With hypnosis there could be a more rapid recovery of the memory, and the self-protective tendencies would be greatly minimized. However, such a recovery would first be limited to the unconscious mind. Then there would arise the question of whether or not the unconscious knowledge could or would be shared with the conscious mind. If it should be, then the person would have to experience mentally the original trauma with all the personal pain that would accompany the recovery of the repressed material.

In his case there would be a number of questions he would have to consider. Would he be conscious? Or would he want to know it consciously? Also, while his willingness to work on such a problem in the presence of his classmates implied his willingness to have them see his behavior in so doing, would he want them to see his conscious reactions to a conscious realization? Then, too, even if he were willing for that, would he want them to know the content of the repressed material?

As for the method of achieving a conscious understanding, there were certain considerations he should have in mind. Would he want the whole thing to irrupt into his conscious mind all at once? Or would prefer to have it come piecemeal, one part at a time, with the possibility of halting the process and mustering his strength so that he could more easily endure the next development? Would he want to separate the affective from the cognitive elements and experience the one or the other first? Or would he like to have the recovery follow the same course of development, the same chronology, as the original experience?

He interrupted to declare that the latter sounded best and to ask when a beginning could be made.

Reply was made, "The other students are here."

Thoughtfully he answered, "I don't care what they see, but I don't want them to know until I know first. We're all medics, so I figure that they ought to be able to take it. But I want the first look. When can we start?"

He was told, "It is now after 10 o'clock. What do you think you have been doing? Why do you feel so tired, so beaten up?"

After a long pause he said, "You mean, I've done that job I talked about when I came, that I know it in my unconscious and that you are waiting for me to figure out if I want to know it consciously? I'm pretty sure that's right—I better think it over. I'm not just beginning the job. I'm on the homestretch and I'm sick. Give me a few minutes."

Shortly he declared, "I'm going to take it just like it really happened. What time is it?"

He was told 10:30.

He smiled and began, "That's funny. A scene just flashed into my mind. It's just as clear as if I were there looking on. I'm back in Oklahoma. Let's see. I'm almost eight years old. And there is

that shirttail cousin of mine. I haven't seen him since I was eight years old. He moved away." Then, in the manner of one who is hallucinating visually a past experience, he continued, "Us kids are playing. We got short pants on and we are having fun." Then in a detached fashion he added, "Nothing traumatic about this. I can see us wrestling and pushing and kicking up in the straw. We are in the cow barn. We are having a whale of a time. Hey, he pushed me. That hurt. I hit him. He hits back. What a fight. Slugging away. Oh no, no, no, no, don't, don't, don't."

At this point he stopped verbalizing, closed his eyes, and shuddered; there followed a duplication of his previous disturbed behavior, with one new addition. Repeatedly he seemed to be endeavoring to speak but unable to do so. For about 20 minutes he was absorbed in the throes of this experience, and finally he collapsed in his chair in exhaustion and said, "Thank God, he will live."

Slowly he straightened up in his chair and remarked, "Yes, he lived, and I forgot the whole thing. I haven't even remembered him. I never dared. I couldn't. I haven't remembered it for years and years-more than 15 years. I just put it out of my mind completely."

After further similar comments he suddenly remarked, "I might as well tell the rest of you what it's all about," and he proceeded to relate the story. In summary, his account was as follows:

One summer day before his eighth birthday he was playing in the cow barn with a distantly related boy of his own age named Johnny. They were wrestling and tussling, and unintentionally they hurt each other. This led to an active fight, and Johnny, smaller than he was getting the worst of the battle. To even the contest, Johnny grabbed a pitchfork and attempted to jab him. In turn, he seized a pitchfork used in cleaning the barn and unfortunately stabbed Johnny in the left calf. When Johnny screamed, he jerked the fork tine out and was even more horrified by the pulsing stream of blood.

Johnny ran screaming and limping to the house, while he turned and ran to the pump and began pumping water frantically into the horse trough.

As he learned later, his father applied a tourniquet and summoned a physician. While waiting for the doctor, the father came to the well and, seizing him, went to the horse trough, sat down, and proceeded to spank him thoroughly, as he lay across his father's knee, staring at the green scum of algae in the horse trough. Then his father roughly dragged him to the house and made him stand and look at Johnny.

The physician arrived and dressed the wound, then wanted to see the fork. His father cuffed him and sent him to get the fork, which he did in a turmoil of emotion.

After examining the fork, the doctor administered antitetanus serum, explaining the reason. Upon learning this, the father beat his son again.

Just before the doctor left, Johnny developed anaphylactic shock. His eyes swelled shut, his tongue enlarged and protruded from his mouth, and he became a "horrible greenish color."

He saw the doctor give another injection, which he thought was again antitetanus (afterwards he learned it was "medicine to help Johnny live"), saw the doctor insert a spoon into Johnny's

mouth (to lessen respiratory embarrassment), and then take out a knife (scalpel) to cut Johnny's throat (do a tracheotomy). He was all the more terrified that Johnny was to be "butchered like a pig."

However, Johnny responded to the adrenalin injection and no tracheotomy was performed, but the doctor did explain the reason for considering a tracheotomy. However, to him, it still sounded like a plan to butcher Johnny.

After the doctor left, his father trounced him so hours by Johnny's bedside and to watch and give the alarm if Johnny developed "breathing trouble so he would have to have his throat cut."

All that night he dreamed of Johnny's skin turning a "horrible green like the horse trough." The next day he was forced to watch the doctor redress the wound, the surrounding area of which was "all awful color, green and nasty." Furthermore, the doctoring in examining the wound remarked that it was a most "nasty thing." Later that day he neglected to pump water for the horses, and was again thoroughly spanked by his father while in the same position as the previous day.

Shortly thereafter Johnny's parents moved out of state, and all contact was lost. As far as he could determine, the entire matter then became a closed incident, and a year later his parents moved to a distant city, and farm life became a forgotten thing.

Tired, exhausted, self-absorbed, the student took his departure with the others, who had been instructed not to discuss the matter till later.

A week later the student visited the writer, stating that he had learned some amazing things about himself as a result of his recovered memory.

First of all, he doubted if he was as seriously interested in psychiatry as he had previously thought. Internal medicine was proving more interesting.

Secondly, his attitude toward dermatology had changed completely. Previously, he had been unable to study the textbook, despite repeated efforts. Either he went to sleep or immediately became distracted. Each time he went to the dermatology clinic, he became sick and had to leave. Also, despite frequent faculty warnings, he had consistently avoided the lectures given on the subject. Now he was studying dermatology with interest, and he enjoyed the clinics. (He eventually secured a good grade in that subject.)

He was seen regularly in class sessions for the rest of the year and also throughout his internship, during which time he discussed his future plans, which included a residency in internal medicine. However, he still retained a good, though secondary, interest in psychiatry.

He has since completed a residency in internal medicine and is now in private practice, utilizing his knowledge of psychiatry extensively in handling his patients.

## **CONCLUSION**

Little need be said in summary about the informativeness of the student's performance. The directness, the economy of effort and time, the effectiveness with which he accomplished his

task, and the significance of the results to him as a personality, together with the ease with which one can follow and understand what occurred, is most impressive. It is difficult even to imagine such a task performance in the ordinary waking state, even as the student himself discovered. Yet, in the hypnotic state a seemingly impossible task became comprehensible, feasible, and ready of accomplishment in a recognizable fashion.

# **Self-Exploration in Trance Following a Surprise Handshake Induction**

Milton H. Erickson

Unpublished manuscript, 1952-1954. A detailed analysis of the dynamics of the handshake induction is provided in Erickson, Rossi, & Rossi, 1976.

A medical man who had used hypnosis for many years suffered the tragic loss of his oldest son, who had been his first hypnotic subject. The man reacted to this by a severe depression, following which he abandoned hypnosis and practiced his profession at a minimal level. After approximately seven years he attempted to resume the use of hypnosis, but each time he found himself seriously blocked psychologically, stumbling for words, becoming confused, and reacting with a brief severe depression at each failure.

He sought therapy in a rather rigid, compulsive way, entering the office, placing a check on the desk, and explaining, "That will pay you for your time. All I want is to have you hypnotize me, remove my block against hypnosis, and send me on my way." Reluctantly, he gave the above information and insisted upon the therapist proceeding forthright with no other preliminaries. He sat rigidly upright in his chair, arms folded across his chest, and stared unblinkingly at the therapist, following every movement made. The suggestion that he lean back and relax elicited the answer, "I'm perfectly relaxed—just go ahead and try to hypnotize me. I've given you a check large enough to pay you for the next two hours of your time."

## ***INITIAL FAILURE AT TRANCE INDUCTION TO DEPOTENTIATE RESISTANCE***

Against this background of resolute, insightless resistance the therapist made a seemingly intense effort at hypnotic induction, employing first one and then another induction technique, taking care each time to force issues unduly or to fail to take advantage of any slight yielding to suggestion. Thus, failure of the effect to induce hypnosis was ensured. Now and then, as the therapist continued his efforts, the patient was observed to smile. At the end of two hours' intense effort absolute inability to induce a trance was admitted. The patient smiled graciously, reassured the therapist that it did not matter, that he was merely on his way to the Grand Canyon and had stopped in only as an incidental visit to see if he could be hypnotized. Now that he knew this could not be, he would abandon his search for therapy.

## ***A SURPRISE HANDSHAKE INDUCTION***

After shaking hands with the patient and bidding him a pleasant trip, it was suggested that he might like to meet the therapist's wife (the office is in the home). He consented, the

introduction was made in another room, casual remarks were made about his trip, and he was again bidden farewell. The therapist again shook hands with the patient in a normal, vigorous fashion. However, the hand was withdrawn in a slow, lingering, indefinite fashion that served to fixate the patient's attention completely, to induce a state of catalepsy and a profound somnambulistic trance. He was immediately led into the office, assured that his purpose in seeking hypnosis had been achieved, and that he should spend the next hour primarily in thinking through and understanding his total life situation, using the therapist merely as a sounding board for ideas.

The patient sat quietly, now and then murmuring inaudibly to himself, now and then asking some simple question pertaining to the therapist's opinion about his future use of hypnosis and his reestablishment of his full practice. Simple reassurances were given.

At the end of the hour the patient was aroused from his trance state, congratulated on his competence as a subject, and asked to keep in touch with the therapist by mail should problems arise in his use of hypnosis in his practice. Then he was again bidden farewell.

Eight years have elapsed. The patient has a full and active practice, is enthusiastic in his use of hypnosis, and has encountered no further difficulties.

# **Reorganization of Unconscious Thinking without Conscious Awareness: Two Cases with Intellectualized Resistance against Hypnosis**

Milton H. Erickson

Unpublished manuscript, 1956.

## **CASE 1: THE REORGANIZATION OF UNCONSCIOUS THINKING WITHOUT AWARENESS**

A 40-year old patient, suffering from a chronic respiratory disease of a progressively disabling character, sought hypnotherapy for long-continued excessive smoking, amounting to three to four packs of cigarettes daily. The explanation was offered by the patient that the smoking was entirely compulsive, that there was no possibility for self-control, and that hypnotherapy had been sought repeatedly without avail. Now, as a final endeavor, hypnotherapy was once more being sought as "a final despairing gesture." This phrase was explained as signifying the patient's absolute conviction that any attempt at hypnosis would fail.

## **TRANCE INDUCTION WITH AN ASSOCIATIVE NETWORK OF TRUISMS**

The therapist silently agreed with the patient, who sat watching every move made with almost pathological intensity. However, the patient demanded that an effort at hypnosis be made and seemed both relieved and disappointed when he did not experience any recognizable hypnotic response after half an hour of systematic trance induction. The patient demanded further effort, but was dissuaded by the therapist, who suggested the following:

1. The patient was to fixate visually upon the corner of a desk clock—"to hold the eyes still."
2. The soft ticking of the clock was to be attended assiduously—"to hold the ears still."
3. Random thoughts, orderly thoughts, systematized thoughts were to be free to wander through the mind freely and spontaneously or even to linger.
4. At all times the patient was to feel wide-awake, alert, and attentive to the adequate performance of the tasks assigned or to be assigned. At any hint of any hypnotic suggestion or attempt to induce a trance, the patient was to give full attention to the therapist and to disrupt thereby the assigned tasks.
5. Although paying attention to the ticking of the clock, there could be any degree of additional auditory awareness of sounds within the office, in the next room, outside the office, in the street, in the skies.

6. There was also to be a constant awareness of the physical self, with attention fluctuating from one part of the body to another, from the feet to the hands or the thighs, to the cloth around the neck, to the hair on the head, and back again with any variation desired.
7. At all times the patient was to feel free to listen consciously to whatever the therapist said, but this, it was explained, was actually unnecessary, since the constantly present unconscious mind would be within hearing distance of the therapist and could listen by itself while the conscious mind busied itself with the clock, with thoughts, with various sounds, and whatever else interested it, including the fluctuations in body awareness.
8. At the close of the interview the eyes and ears would slowly shift their attention from the clock to the therapist.

The patient was most cooperative, obeying instructions excellently. Within five minutes he presented the appearance of a deep trance state. This was tested, after 10 minutes, by laboriously searching the desktop for a manuscript, during the process of which the clock was apparently "thoughtlessly" removed from its position and obscured from the patient's view. This resulted in no visible response on the part of the patient, whose gaze remained fixed and unchanged at the spot where the clock had been. The pupils were noted to be widely dilated, as is frequently the finding in deep hypnosis. Neither was there any apparent awareness of the therapist leaving his seat and wandering aimlessly about the office. Nor did the patient seem aware of a sudden noisy flight of jet planes overhead.

Therapy was accomplished by discussing matter-of-factly the patient's physical needs to discontinue smoking and by raising the question variously of the relative values of smoking, physical health, freedom from compulsion, and peace of mind.

As this discussion was offered, the patient was admonished from time to time to continue fixating on the clock, both auditorily and visually, to entertain any variety of conscious thoughts of interest, to hear and to be aware of whatever was desired, but above all to know that conscious activity was relatively unimportant in the therapeutic situation, that *the only thing of paramount importance was the reorganization of unconscious thinking taking place without conscious awareness.*

The patient was seen for a total of 11 hours over six days in one month. About half that time was spent in futile attempts to "hypnotize me," at the patient's urgent request, and in social chitchat far afield from the problem in hand. The rest of the time was spent in actual therapy essentially as described above. The therapeutic result was the reduction to three postprandial cigarettes and one just before going to bed.

The next month the patient returned with the plea that the remaining cigarette smoking be abolished, since it constituted the "doorstep for the reentry of the old habit." At this time a hesitant request was made several times for the use of hypnosis, but on each occasion the patient was fully as resistant as originally. Each time an apology would be offered,

and the suggestion would be made by the patient that resort be had to the clock fixation “because that way I listen better.”

The same routine as before was instituted with one exception: the smoking, which had been excessive since puberty, was a secondary matter. Present-day problems pertaining to finances and family matters were brought up for discussion. A total of 16 hours over a period of eight days was spent, about one-fourth in directed chitchat to elicit information and attitudes and the rest of the time as described above, but this time discussing the immediate problems other than smoking, which in five days was discontinued.

Upon the closing of the case, the patient expressed regret at the failure to develop a trance state and wonderment at a marked inability to perceive the passage of time correctly during therapeutic sessions. No request of any sort was made for any explanation of this, although in discussing matters with the patient’s “unconscious mind,” suggestions were offered that the patient should feel free to request explanation of any item not fully understood.

## **CASE 2: TRANCE INDUCTION WITH A SURROGATE THERAPIST**

Comparable to the foregoing case was that of another patient, also a physician, who telephoned long-distance demanding a specific appointment for hypnotherapy at a specific hour, suggesting that any conflicting appointments already made be canceled. After some discussion an appointment was finally scheduled, but the day before he again telephoned long-distance to inquire if the therapist were prepared to abide by the wishes and needs explained over the telephone. A placating answer was offered, and preparations were made for his arrival.

He appeared promptly on time, walked briskly into the office, introduced himself, stated that he was a physician, well aware of his own needs, and demanded that he “be hypnotized if you think you can do it” without further history-taking or delay. He sat himself comfortably in the chair, leaned back, cocked his head to one side, smiled in a superior fashion as he folded his arms, and said, “Go ahead.”

With equal insistence the therapist demanded a minimum of vital information about him, and the patient reluctantly agreed that he himself would so demand of a patient. When this was completed, the patient commanded, “Now go ahead, and use a dominating technique because I am a dominant personality. Take about 15 minutes. That will tell the story.”

For about 15 minutes a strongly authoritarian technique was carefully employed, while the patient smiled condescendingly. After glancing at the clock, the patient ordered, “You might as well keep on for another 15 minutes, even though you are not going to get anywhere.”

As predicted, the patient made no response to this approach, nor was one expected. The patient made a few caustic comments and then asked if the therapist knew any method by which hypnosis could be induced.

Answering affirmatively, the therapist immediately stepped out of the office and returned almost immediately with a young woman. Without further ado she was instructed to develop a somnambulistic trance, which she did promptly. She manifested spontaneously a negative hallucination for the patient, and this was corrected by having her become aware of his presence. She was then instructed to sit quietly in the therapist's chair and, using a soft gentle technique, induce a profound somnambulistic trance in the patient while the therapist absented himself from the office. Upon his return in about 15 minutes she was to transfer rapport to the therapist and then to leave the office, arousing from the trance immediately after her exit.

The therapist returned in about 15 minutes. The patient and the young woman were both in somnambulistic trances. The young woman fulfilled her instructions and departed.

The question of therapy was then taken up with the patient, and in the trance state he was found to be receptive and cooperative; it was possible to arrange with him to let the therapist govern the course of the therapy. Despite the patient's disturbed condition extensive and effective therapy was accomplished, sometimes with and sometimes without the use of hypnosis, as the immediate situation indicated.

# **Psychological Shocks and Creative Moments in Psychotherapy**

Ernest L. Rossi

*This paper was written by Ernest L. Rossi who expresses his appreciation to Milton H. Erickson for providing the case material and inspiring the discussion of its theoretical issues. He and his wife, Elizabeth Erickson, have generously contributed time, effort and editorial experience in its preparation.*

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During the summer of 1972 Milton H. Erickson was quietly reminiscing over his 50 years of creative experience with hypnosis while Rossi gently probed with a question or two as he maintained the adjustments on his cassette recorder. It soon became evident to our mutual surprise and delight that Erickson was now giving expression to a basic aspect of his work that he had never really emphasized before-psychological shock. Shock could be creatively utilized in psychotherapy (with or without hypnosis) to break up maladaptive attitudes and patterns of behavior so the therapist could help the patient realign his life learnings in a more constructive manner. As Erickson illustrated his views with many case histories from his clinical practice, Rossi gradually began to recognize the necessary relation between psychological shock and the development of creative moments that he recently described as the basic dynamic of change in psychotherapy (Rossi, 1972a). In this paper we will first present a number of cases where Erickson successfully utilized psychological shock; we will then make an effort to describe the psychotherapeutic circumstances necessary for the safe and successful use of psychological shock; we will then outline some of the theoretical issues dealing with psychological shock and creative moments in their relation to hypnotherapy.

## **CASE 1**

A 30-year-old university professor attended a university dance and saw a 30-year-old single woman on the other side of the room. She saw him, and they rapidly gravitated toward each other. Within a month they had planned their future and were married. Three years later they appeared in Erickson's office and told their sad story. In telling it they were extremely prudish and embarrassed, and they used a most stilted and formal wording. In essence their complaint was that even before marriage they had planned to have a family, and because of the fact that they were each 30 years old, they felt that there should be no delay of any sort. But after three years they were childless despite medical examinations and advice. They were both present in the office, and in telling the author their problems, the man said:

In my thinking and that of my wife we have reached the conclusion that it is more proper that I give voice to our trouble in common and state it succinctly. Our problem is most distressing and destructive of our marriage. Because of our desire for children we have engaged in the marital union with full physiological concomitants each night and morning for procreative purposes. On Sundays and holidays we have engaged in the marital union with full physiological concomitants for procreative purposes as much as four times a day. We have not permitted physical disability to interfere. As a result of the frustration of our philoprogenitive desires, the marital union has become progressively unpleasant for us, but it has not interfered with our efforts at procreation; but it does distress both of us to discover our increasing impatience with each other. For this reason we are seeking your aid, since other medical aid has failed.

At this point Erickson interrupted and said to the man, "You have stated the problem. I would like to have you remain silent and have your wife state the opinion in her own words." In almost exactly the same way and with even greater embarrassment than her husband had shown, the wife voiced their complaint. Erickson said, "I can correct this for you but it will involve shock therapy. It will not be electric shock or physical shock, but it will be a matter of psychological shock. I will leave you alone in the office for 15 minutes so that the two of you can exchange views and opinions about your willingness to receive a rather severe psychological shock. At the end of 15 minutes I will come back into the office and ask your decision and abide by it."

Erickson left the office and returned 15 minutes later and said, "Give me your answer." The man said, "We have discussed the matter both objectively and subjectively, and we have reached the conclusion that we will endure anything that might possibly offer satisfaction for our philoprogenitive desires."

Erickson asked the wife, "Do you agree fully?" She answered, "I do, sir."

The author explained that the shock would be psychological, involve their emotions, and be a definite strain upon them.

It will be rather simple to administer, but you will both be exceedingly shocked psychologically. I suggest that as you sit there in your chairs, you reach down under the sides of your chairs and hang tightly to the bottom of the chair and listen well to what I say. After I have said it, and as I am administering the shock, I want the two of you to maintain an absolute silence. Within a few minutes you will be able to leave the office and return to your home 40 miles from here. I want the two of you to maintain an absolute silence all the way home, and during that silence you will discover a multitude of thoughts rushing through your minds. Upon reaching home you will maintain silence until after you have entered the house and closed the door. You will then be free! Now hang tightly to the bottom of your chairs because I am now going to give you the psychological shock. It is this: For three long years you have engaged in the marital union with full physiological concomitants for procreative purposes at least twice a day and

sometimes as much as four times in 24 hours, and you have met with defeat of your philoprogenitive drive. *Now why in hell don't you f—for fun and pray to the devil that she isn't knocked up for at least three months. Now please leave.*

As was learned later, they maintained silence all the way home thinking, "many things." When they finally got inside the house with the door shut, it was explained, "We found we couldn't wait to get to the bedroom. We just dropped to the floor and we didn't engage in the marital union. We had fun, and now the three months are barely up and my wife is pregnant." Nine months later a baby girl was born. When Erickson called on them to see the baby, he learned that formal speech and polysyllabic words and highly proper phrases were no longer necessary in their conversations. They could even tell risque stories.

This case history was related in full to an audience of over 70 practicing psychiatrists at Columbia University at the request of Doctor Herbert Spiegel. Preliminary to narration of the case history, Doctor Spiegel and Erickson had been discussing the ingrained attitudes of inhibitions for what are so-called Anglo-Saxon words, and the audience was asked if they thought that they could endure listening to the author make use of such words in relation to a psychiatric problem. The audience and Doctor Spiegel were certain they could, and Erickson also felt that they could. However, to the utter astonishment of Erickson, at the utterance of the key word he noted that the entire audience actually froze into rigid immobility for a few moments. Doctor Spiegel was noted to catch his breath, and Erickson noted that his own tone of voice very definitely changed. This was most revealing about the long-continued effects of the learned inhibitions of childhood and their continuance into adult life.

In Erickson's opinion the 40-mile drive in absolute silence made possible, in accord with the suggestions given them, a great variety of much repressed thinking that ran riot in their minds. This resulted in their sexual activity immediately upon closing the door when they reached home. This was what Erickson had hoped. When the couple were questioned about this, they stated that they believed that there had been an increasingly greater build-up of erotic thinking the nearer they got to their home, but they stated that they had no specific memories.

## CASE 2

*Erickson:* A soldier in Yuma courted a Spanish-American girl whose mother was widowed while the girl was still very young. She had been escorted to grade school and high school by two maiden aunts and then escorted home again every day. They went to every child's party, every school party, every high school outing, football game, what have you. They went with her when she applied for a job as secretary. They took her to work, called for her at noon, took her out to lunch, escorted her home in the evening. At some football game this soldier stationed in Yuma was attracted to the girl. The two old maids went on every date. Somehow or other he proposed to her, properly and in the presence of the old maids. She promised to marry him, and he was allowed to kiss her once. She promised to marry him in June. In June she promised to marry him in

July. In July she promised to marry him in August. That went on for 48 months—continuous delays.

Then the family physician called me up and said “I can’t do anything with this girl.” The girl had been escorted to the family physician’s office and was properly chaperoned when the physician examined her. He called me when they left, “Would you take her?” I said, “Yes.” So her mother and the two maiden aunts came with her on the bus to my office. They were horrified when I wouldn’t let them come into the office with her. The mother and two aunts were forced to sit outside the door so I could see the girl alone. The girl told me the situation. I asked her if she wanted to marry the boy. She did. That was in June. The first of July she got a letter from him saying, “We’re going to be married this month or I’m going to get another girl.” She was most tearful. So I asked her, “Are you sure you want to marry that boy? Are you really, really sure?” She was. I told her “I can help you, there’s only one thing you have to do—come from your home to my office alone. I know you’re afraid to ride on the bus alone, you’re afraid to ride in a car without your aunts, you’re afraid to ride on the train without your aunts, but you come from Yuma, alone.

“Now, I don’t care where you do it. You can do it in Yuma or in Phoenix: you buy a pair of short, short pants and come into my office wearing them, and when you come into the office, you are going to do exactly what I tell you to do. Absolutely, exactly, without protest without question. You’ll silently do what I tell you to do. You’ll think it over for a long, long time, and do you know, you’re going to do it, you’ll say ‘I will, I absolutely will.’”

On her next appointment I had Mrs. Erickson in the office. Mrs. Erickson didn’t know what I was going to do. The girl came in and sat down in a chair, I introduced her to Mrs. Erickson. I told the girl to just stand there, facing me, hands to her sides. “Now look straight ahead ... take off your left shoe ... your right one ... take off your left stocking.... your right stocking . . . take off your shorts . . . take off your blouse ... take off your bra ... take off your panties ... point to your right nipple ... your right breast ... your left nipple ... your left breast ... your belly button ... your pubic genital area ... turn around, point to your right buttock ... your left buttock ... turn around, face me, tell me if you have a beautiful body.... All right, you do have a beautiful body. You may dress. Before you marry that man you’ll board the train and go back to Yuma alone. You will tell your mother that you are getting married, and you will tell your mother what kind of wedding cake you want. You will tell your mother who the guests will be and you will tell your mother that if she thinks otherwise, you are going to be married by a justice of the peace (a terrible threat since they were Catholics).”

That was the beginning of July. She married on July 17th. She sent me a Christmas card in December with a picture of herself and her husband. The next year, she sent me a picture of her first child and Christmas cards on the following years announcing her second and third child. A few years later she brought the family with three children in to see me.

*Rossi:* Okay, how did that case work? Was shock involved?

*Erickson:* Could there be anything worse than undressing before your doctor in the presence of his wife and pointing to your nipples and your breasts and your belly button?

*Rossi:* She was never in a trance?

*Erickson:* No.

*Rossi:* Except what the situation might have induced.

*Erickson:* That's right, except for what the situation induced.

*Rossi:* There might have been an altered state of awareness that arose spontaneously due to the shock situation she was in. So what you did was to break through tremendous inhibitions.

*Erickson:* Great inhibitions—nothing worse ever happened to her.

*Rossi:* Having forced those responses, you broke through the lifelong pattern of conditioned inhibition of having those aunts around and so forth.

*Erickson:* Yes, it disrupted the rigidity that governed her entire life. Just as the first break in the shell pecked by a newly emerging chick immediately shatters the whole shell, so her whole life opened up. I just gave her simple statements. You do this, do that, no questions, just do it silently.

*Rossi:* And those simple statements, that you point to your breasts, your genitalia and so forth, what were those statements designed to do?

*Erickson:* To break her inhibitions, really break them! Notice how I engineered that: first the left shoe, then the right, the left stocking, and then the right. I carefully built up a momentum of an affirmative character so she finally took off all her clothes and followed all my suggestions designed to shatter her lifelong inhibitions. I made her promise to do everything. Anyone like that who gives a promise....

*Rossi:* Ah, that's how you had her caught in a double-bind, so to speak. I notice that before you do this shock type therapy, you demand a promise of obedience, do you not? And the patient has to have a mental structure, I suppose, where they are going to go along with you. They are the kind of people who will keep a promise, and you capitalize on that. A psychopath you could not do this with.

*Erickson:* I can't imagine doing it with a psychopath, I wouldn't even try.

*Rossi:* It would have to be some who had a lot of ...

*Erickson:* ... Innate honesty.

*Rossi:* It occurs to me, was this therapy a symbolic rape?

*Erickson:* It was a rape.

*Rossi:* Did you think of it that way when you were planning it, as a symbolic rape?

*Erickson:* I did, it was a psychological rape.

### CASE 3

*Erickson:* A professional man and his wife consulted me. He began by saying that they have been married 12 years. "We have a daughter, but apparently we are not going to have another child. This is the way we go to bed. I have to go to the bedroom, shut the door, undress, put on my pajamas. Get into bed then call my wife. She comes, turns out the bedroom light, all of the lights. Then first she draws the shades, and then the drapes over every window. She checks the doors, to make certain they're locked, the windows are locked. She turns out all the lights. She goes into the guest room and she undresses there, in the dark. She puts on her nightgown. Then she comes through the darkened hall into the dark bedroom and she gets into bed with me. I can have sex relations with her, I can even take her nightgown off, but the lights cannot be turned on. She will not allow me to see her nude."

I then said to her, "You've had one child, the lights were on and your nude body was seen by your obstetrician and nurses, and you're still alive. Now your husband wants this corrected."

She said, "But I can't do what he asks, I just can't let him see my body."

I said, "Well, that's your statement, 'I can't do it.' Now your husband is six foot two, weighs 210 pounds, able-bodied. I have a bad limp. I'm five foot six, weight 150 pounds. There's no question that I'm outmatched physically by your husband. I want you to sit quietly in that chair. Your husband's going to make you sit there. I can tell you and I mean it, you sit there. Now I'm going to do something to you, and I want your husband to watch." At that time the style of the skirts was down to mid-calf length. "Now I'm going to start moving your skirt a little bit over your thighs, I'll stop moving them only when you are in a deep trance. And you'll listen to me. And you'll not say you can't." Half an inch at a time I slowly began lifting her skirt. This was an unendurable thing for her to be aware of consciously, therefore her only escape was to go into a trance. She was aware of my use of hypnosis, since I had treated a friend of hers.

*Rossi:* Now this was setting up a double-bind, going into a trance that way.

*Erickson:* Yes. I slowly lifted her skirt, up and up past the knee. She was just looking at her skirt and my face.

*Rossi:* Yes, she went into a trance.

*Erickson:* "Now you're in a deep trance. I don't know why you've been having this foolish undesirable behavior for 12 long years, more than 12 long years, actually 13 years, before your daughter was born. But I want you to understand that you're going to change things. You'll not do it all at once. I'm not going to ask you to do it in my presence or your husband's presence. Each day at home, after your daughter's gone to school, and you're alone in the house, I want you to look in every mirror in the house. [A house is a woman's castle, her own protected territory in which she could feel free to experiment.] And look at that woman and wonder what she looks like, and I want you to discover bit by bit what she looks like in the nude, completely in the nude. Take off her clothes bit by bit. First the shoes, then the stockings, then the dress and the slip. The bra, the pants. Then I want you to dance. You will dance as a child, a ballet dance. You did ballet dancing in college. You'll enjoy dancing. You must within six months, perhaps after three months, undress in the guest room, in the dark, then walk into the bedroom, turn on the lights, and do a ballet dance for your husband in the nude."

*Rossi:* This was all said while she was in that trance state and her husband was present?

*Erickson:* Her husband was present. She could effect the cure at the right time at her own speed.

*Rossi:* Yes, very important that you allowed her unconscious to do it at its own rate.

*Erickson:* Its own rate, its own fashion. First the shoes, then the stockings. Or she'd take off her slip first or she'd take off her bra and her dress first, it didn't make a bit of difference to me.

*Rossi:* Right, this is all the freedom that you gave her.

*Erickson:* I placed the limit of within six months, and I offered her a period of three months to experiment by herself. This establishes the illusion of freedom of choice.

*Rossi:* Setting these definite time parameters within which she could have all the freedom she needed.

*Erickson:* You can imagine her husband's delight when she pranced in her bedroom, switched on the light, did the ballet dance for him in the nude.

*Rossi:* He must have been happy. So with that happening, presumably she was over her inhibition.

*Erickson:* Yes, and how! Now there's one thing I had said to her, "If you don't do it, your husband will bring you back here and you will do a nude dance for me in your husband's presence."

*Rossi:* It was going to be worse if she didn't do it for her husband since she'd have to do it for you too. So again you set up a double-bind. It was going to be harder if she didn't do it alone for her husband, so you gave her the easy way out.

*Erickson:* A very easy way out.

*Rossi:* You use a carrot but you use a whip too, don't you?

*Erickson:* There's iron under my velvet gloves.

*Rossi:* I'm becoming more and more impressed with that.

*Erickson:* Now, why should I investigate her past? The parental influence on her, her father's, her mother's, her teachers'. Why should I do anything at all by way of going deeply into her personal history? Therapy is often a matter of tipping the first domino. All that was needed was the correction of one behavior, and if that one behavior was corrected ...

*Rossi:* All the other inhibitions topple like dominoes.

*Erickson:* Yes, we have a domino situation.

*Rossi:* Yes, perhaps the early analyst had to go back into a patient's history to learn psychoanalysis, to learn how those inhibitions were built up. But since we know all that, you don't have to go into it with each patient.

*Erickson:* It's so ridiculous to pore over what you did when you were five years old because it belongs to the unchangeable past and any present understandings of that are different than that of the five-year-old. The adult level of understanding precludes any real understanding of the child's or adolescent's world.

## CASE 4

*Erickson:* Another shock case. This is such a beautiful one. Mary and Eve had been grade school and high school friends. They both married high school friends, and the two men were also high school friends. They both told me they confided everything to each other, and they both confided that they had to get a divorce. Each said her husband was a pervert, but neither admitted, neither dared to tell the other just what the perversion was. So in separate interviews I asked each girl to describe her husband's perversion to me. Mary said when a man and a woman have intercourse, a man's legs are between the woman's legs. And her husband always wanted to keep his legs outside her legs. Now when I later interviewed Eve, she said the exact reverse. She felt it was normal for the man to have his legs outside the woman's, but her husband perversely wanted to keep his legs between hers. I saw both girls at four o'clock on successive days. I told them not to tell each other what I had said or what they told me. And then the third day I had them

come together for a joint interview. By this time they both had time to build up a lot of inner turmoil and emotion. I told them, "When one of you speaks to me, the other just listens and says nothing (this silence was to build up even more emotion)." Then as one told her story, the other would just listen to her. First Eve told about her husband insisting on keeping his legs between her legs. And then Mary told the reverse story. Their mutual horror is imaginable. Then I summarized how they both told their story and listened to each other most attentively in silence. Now they were to drive home together maintaining their silence all the way. "Now when you get home you will both have the urge to ask the other, what the hell is wrong with you?"

*Rossi:* I see, they had to be silent on the way home, so it would build up within their minds....

*Erickson:* It would build up: what in the hell is wrong with you! They both had to say that to the other. Then they could talk. Think of the horrible buildup!

*Rossi:* Again, building up that tension to be discharged in a new way.

*Erickson:* Each had intercourse that night both ways and both enjoyed it.

*Rossi:* Fantastic. So here's another shock therapy involving a sexual problem, a sexual inhibition.

*Erickson:* It was more than a sexual inhibition. It was based on an insufficient awareness of human behavior.

*Rossi:* I see. That was their inhibition-a lack of awareness of the broad range of human behavior.

*Erickson:* Yes, and a rigid idea.

*Rossi:* Yes, so that's what shock therapy does. It breaks through rigid ideas.

*Erickson:* Rigid ideas they couldn't break. And when I shattered that rigid idea, it shattered the hell out of them. It even led them to try other positions. I hadn't told them there were other positions, they started investigating other positions on their own.

*Rossi:* Once you broke their rigid idea of only one set position....

*Erickson:* It altered the place they could go for pleasure. It was a breakdown of a narrow, limited, restricted life existence. You can't be rigid in one area alone; it always spreads.

*Rossi:* So again, it's not mere behavior you're changing, but a whole existence.

*Erickson:* And you pick whatever lock is presented to you.

*Rossi:* I see, so this is as much existential therapy as behavior therapy or hypnotherapy. It's the total existence that you....

*Erickson:* It's an old thesis.

*Rossi:* You pick whatever lock is presented to you.

*Erickson:* And once one lock is picked, all the other locks become vulnerable. [Erickson now elaborates many examples in the history of science where great advances were made by one man breaking through the inhibiting preconceptions of others.] Throughout history there has been a lot of shock therapy.

*Rossi:* Perhaps the whole history of innovation is shock therapy. Every scientific innovation is a shock therapy.

## CASE 5

*Erickson:* American Jews aren't always orthodox—in fact, many Jews aren't. But this is the case of a very orthodox Jewish girl who came from a European family that observed all the most elaborate rules about food. They left Germany because they realized that Hitler boded no good for the Jews. Her father had to sell out all his belongings at a great loss. So great a loss that it shattered their former life-style, and this shattering permitted them to change. They took on the break that Hitler forced upon them and made it their own by breaking former traditions. They thus gave up bitterness and gave themselves a chance for happiness in America. This allowed them to encourage their daughter to change. Her parents were older and knew they could not change, but they encouraged the girl to adopt more liberal views so she could marry an American doctor who had proposed to her. He had insisted on a more liberal home. She said, "I want to marry him but I'm kosher." I said to her, "You are no longer German Jews, you're going to be an American citizen, you've already applied for your first papers. You're in love with an American Jew. He's a doctor who knows his business. He's got my respect. But he likes bacon and ham and he doesn't believe in two sets of kitchen utensils. I want you to eat a ham sandwich right now."

*Rossi:* You said this directly to her just like that!

*Erickson:* I told her to go across the street and get a ham sandwich, have the man wrap it and bring it to my office. You'll slowly unwrap it, first bite, the second, the third.... You won't believe you can possibly eat it, but I've never seen a person die so I'll be glad to watch you eat it and die while you are eating it. Now there is nothing colder and harder than watching a person die. The fact that she doesn't die even though I said I would watch her die forces her to face the complete absurdity of the idea. The inhibition was shattered by a *reductio ad absurdum*. Can you imagine how she ate that sandwich?

*Rossi:* You tell me—a lot of inhibition, I suppose, or could it possibly have been with relish?

*Erickson:* With tension and fear. I watched her closely with a straight face. When she was half through with the sandwich, I said, "Wouldn't it be pure hell if you found the sandwich tasty?" She is now happily married.

*Rossi:* Again the shock was used to shatter lifelong inhibitions by forcing her, right there in your presence ...

*Erickson:* No. I'm not forcing her. I'm watching her die, but she is eating the sandwich. The burden is on her for eating the sandwich.

*Rossi:* Oh, I see. The burden for the critical behavior change is always on the patient. You know, this begins to sound a little like some of the behavioristic techniques of helping a person to overcome a phobia by accompanying them on a certain journey ... to a height, for example. Do you see a relation?

*Erickson:* Well, Wolpe says its behavioristic. But I think its more experiential.

*Rossi:* I see, it's their experience that's the important thing.

*Erickson:* Yes, and I'm definitely on the outside.

*Rossi:* How do you mean, you're on the outside?

*Erickson:* I'm just watching her eat, and she is eating so I can watch her die.

*Rossi:* Yes, and it's not the mere behavior of eating, but the whole experience, all of her inhibitions, all her lifetime associations, these are the things that are being broken. It's not the mere behavioristic act of putting ham in her mouth.

*Erickson:* Yes, you have expressed that quite well; it's the total experience.

## **CONDITIONS FOR THE SAFE UTILIZATION OF PSYCHOLOGICAL SHOCK**

So unusual and obviously risk-laden are these examples of psychological shock therapy that the average, responsible therapist may feel inclined to throw up his hands and silently decide to leave this approach to a few master therapists who somehow know how to handle it. A careful review of Erickson's work, however, does reveal a number of conditions that appear again and again in many different guises when he illustrates the successful use of psychological shock. They may be summarized as follows:

### **1. Psychologically Binding Conditions**

The most important condition for the safe and effective use of shock is that patient and therapist are bound together in therapeutic encounter by powerful psychological forces.

C. G. Jung (1953) has used the ancient concept of the *temenos* (sacred precinct) to describe the psychologically binding conditions that are necessary to contain a conflict in order to permit a safe personality transformation to take place without the person being shattered by internal chaos or extraneous external circumstances. On a cultural-anthropological level, for example, the psychological shock and pain that is a regular feature of many initiation rites designed to promote personality change is safely contained in the *temenos* of the belief-system adhered to by initiators and initiates. In modern psycho-therapy it is the *transference* or the *prestige* of the therapist that binds patients to the conflict-laden task of change. In its simplest form Erickson actually sets up morally binding conditions where he demands obedience when he knows he can get it. This is most clearly illustrated in Case 2, when he demands of the virginal girl, “Absolutely, exactly, without protest, without question, you’ll silently do what I tell you to do.” In cases 1, 3, and 4 the *temenos* contained husband and wife or friends who were required to interact in such a manner that their rigidly maladaptive patterns were shattered so something new could happen.

## **2. Protecting the Patient**

Implied in the above is that the patient must be protected at all times. In Case 2 Mrs. Erickson was present as a chaperone during a critically important nude encounter; in cases 1 and 3 a spouse was present. Far more subtle is the protection that must be provided for the deeper levels of personality. Although Erickson admits, “There’s iron under my velvet gloves,” he makes an obvious effort to be scrupulously circumspect in respecting the patient’s dignity. Erickson has previously described this need to protect the subject in his discussion of deep hypnosis and its induction (1967a).

## **3. A Central, Strategic Issue Is Dealt With**

In his discussion of the domino situation in Case 3, Erickson makes it clear that psychological shock is to be used to jolt the basic crux of the patient’s problem. Once a crucial behavior is actualized (eating a ham sandwich in Case 5), a rigid belief shattered (the “perversions” of the girls in Case 4), it is *suddenly* possible for many behaviors, attitudes, and inner experiences to change. Erickson reiterates this view with his lock analogy in Case 4—“And once one lock is picked, all the other locks become vulnerable.”

## **4. Tension Is Kept High**

Tension is not a mere epiphenomenon in psychological shock therapy. Erickson frequently sets up circumstances where tension will build in the therapeutic situation so that energy can suddenly be discharged in more desired channels. The clearest example of this is in Case 1 where Erickson (a) gives a psychologically weighty’ forewarning to the couple that he is going to use “shock,” (b) allows the tension of that forewarning to build as he deliberately leaves the therapy room so the couple can privately discuss whether they want to take the “risk” involved, (c) tells them to hold on to the seat of their chairs as he is about to deliver his shock, and (d) most importantly he demands that they

remain silent all the way home after he delivers his shock, so it will not be dissipated by needless intellectual discussion. In particular this maneuver of demanding silence during certain crucial periods is a way of building and maintaining optimal therapeutic tension (as well as *fixing the patient's attention*) very frequently used by Erickson.

## 5. Changing Behavior by Setting Definite Time Limits

Therapy is obviously doing as well as understanding. A certain amount of therapeutic acumen is needed to determine whether a patient is ready for immediate behavior change (as in Case 5, where the Jewish girl's orthodox parents had already encouraged her toward more liberal attitudes, so Erickson recognized she was probably ripe for the immediate behavior change of eating a ham sandwich) or a more leisurely pace of inner growth and transformation. In Case 3, where Erickson recognized it was going to take more time to radically change a lifelong attitude of prudishness, he (a) carefully set time parameters (between three and six months) within which the desired change was to take place, (b) carefully protected the patient by allowing her to experiment with nudity by herself at first, and (c) helped her to make the desired change by associating the difficult problem of nudity with her skill and joy in dancing. The setting of definite time parameters for psychotherapeutic change may be something more than borrowing a leaf from Otto Rank's time-limited approach to therapy: Time is required for the actual process of psychotherapeutic transformation, to which we will now turn our attention.

## **PSYCHOLOGICAL SHOCK AND CREATIVE MOMENTS IN HYPNOTHERAPY**

Rossi (1972a) recently described *creative moments* in therapy as follows:

But what is a creative moment? Such moments have been celebrated as the exciting "hunch" by scientific workers and "inspiration" by people in the arts (Barron, 1969). *A creative moment occurs when a habitual pattern of association is interrupted*; there may be a "spontaneous" lapse or relaxation of one's habitual associative process; there may be a psychic shock, an overwhelming sensory or emotional experience; a psychedelic drug, a toxic condition or sensory deprivation; yoga, Zen, spiritual and meditative exercises may likewise interrupt our habitual associations and introduce a momentary void in awareness. In that fraction of a second when the habitual contents of awareness are knocked out there is a chance for pure awareness, "the pure light of the void" (Evans-Wentz, 1960) to shine through. This fraction of a second may be experienced as a "mystic state," satori, a peak experience or an altered state of consciousness (Tart, 1969). It may be experienced as a moment of "fascination" or "falling in love," when the gap in one's awareness is filled by the *new* that suddenly intrudes itself.

*The creative moment is thus a gap in one's habitual pattern of awareness.* Bartlett (1958) has described how the genesis of original thinking can be understood as the filling in of mental gaps. *The new that appears in creative moments is thus the basic unit of original thought and insight as well as personality change.*

Experiencing a creative moment may be the phenomenological correlate of a critical change in the molecular structure of proteins within the brain associated with learning (Gaito, 1972) or the creation of new cell assemblies and phase sequences (Hebb, 1963.)

The relation between psychological shock and creative moments is apparent: A “psychic shock” interrupts a person’s habitual associations so that something new may appear. Ideally, psychological shock sets up the conditions for a creative moment when a new insight, attitude, or behavior change may take place in the subject. Erickson (1948) has also described hypnotic trance itself as a special psychological state that effects a similar break in the patient’s conscious and habitual associations so that creative learning can take place as follows (italics are ours):

The induction and maintenance of a trance serve to provide a *special psychological state in which the patient can reassociate and reorganize his inner psychological complexities* and utilize his own capacities in a manner in accord with his own experiential life ... therapy results from an *inner resynthesis* of the patient’s behavior achieved by the patient himself. It’s true that direct suggestion can effect an alteration in the patient’s behavior and result in a symptomatic cure, at least temporarily. However, such a “cure” is simply a response to suggestion and does not entail that reassociation and reorganization of ideas, understandings and memories so essential for actual cure. *It is this experience of reassociating and reorganizing his own experiential life that eventuates in a cure*, not the manifestation of responsive behavior which can, at best, satisfy only the observer.

Fine examples of this “reorganization” and “inner resynthesis” were later provided in Erickson’s paper, “Pseudo-orientation in time as a hypnotherapeutic procedure” (1967), wherein he illustrates the approach of allowing the patient’s unconscious, while in a trance state, to creatively fantasize its own solutions to problems. Erickson describes this approach as follows:

Unconscious fantasies, however, belong to another category of psychological functioning. They are not accomplishments complete in themselves, nor are they apart from reality. Rather, they are psychological constructs in various degrees of formulation for which the unconscious stands ready, or is actually awaiting an opportunity, to make a part of reality. They are not significant merely as wishful desire but rather of actual intention at the opportune time....

In these case histories, extensive emphasis was placed upon fantasies concerning the future, and every effort was made to keep them unconscious by prohibitive and inhibitive suggestions. By so doing, each patient’s unconscious was provided with a wealth of formulated ideas unknown to the conscious mind. Then, in response to the innate needs and desires of the total personality, the unconscious could utilize those ideas by translating them into realities of daily life as spontaneous responsive behavior in opportune situations. (1967)

This approach is very different from the older more traditional hypnotherapeutic approach of simply telling the patient, while in the trance state, exactly in *what* way and frequently *how* the patient's attitudes, beliefs, and behavior are to change. This more traditional approach of directly programming the patient is in sharp contrast with Erickson's facilitation of new learning by allowing patients to *create their own solutions* in their own way and usually in their own good time.

But what, now, is the essence of Erickson's approach of allowing patients to create their own solutions? The author expected Erickson to agree that patients are actually synthesizing new psychic structures—the phenomenological correlates of molecular change in the brain (Rossi, 1972)—when they are involved with their “unconscious fantasies” during the trance state where emphasis is placed upon their future hopes. Erickson, however, tends to demur over such an interpretation. He emphasizes that in the ideal psychotherapeutic situation the therapist does not add anything new to the patient but simply helps the patient rearrange and more constructively utilize *past* learnings. He does acknowledge that this rearrangement may involve the synthesis of new associative connections, however.

This issue may be illustrated by utilizing Osgood's (1957) type of diagram of the semantic relation between complexes of meanings. In Figure 1 a circle represents a meaning-complex, while lines represent the links relating the various meaning-complexes together. In Erickson's shock approach a central neurotic complex (represented, for example, by a neurotic inhibition, behavior, or attitude) is shattered (Stage 2 in Figure 1), so its related meaning-complexes are free to rearrange themselves in another more constructive manner (Stage 3a). A more encompassing view of hypnosynthesis (Conn, 1971) might represent the final situation as 3b, where a newly synthesized meaning-complex replaces the shattered central neurotic complex, permitting a better realignment as illustrated.

Apart from the patients cited above in his paper on pseudo-orientation in time (1967), Erickson has recently described a unique situation in which he appears to have fostered the development of new personality structures (newly synthesized meaning-complexes) in the case of the “February Man” which is presented as the last article in this volume (see also Erickson & Rossi, 1979). In brief, this was the case of a young woman who had grown up in a materially rich but emotionally impoverished milieu such that she was afraid to have children lest they have a childhood as “miserable and lonely” as her own. In a series of interviews Erickson used hypnosis to regress her to earlier age levels (4 or 5 to 14) during which she fully experienced and enjoyed delightful conversations with Erickson playing the part of a friendly and warm-hearted “February Man.” Her experiences with the February Man soon came to embody all the happy and warm feeling and associations she had missed in her actual childhood. An amnesia was maintained for all these trance experiences, so that as therapy continued, the patient in the ordinary waking state began showing less and less concern about her possible inadequacy as a mother, and repeatedly asked Erickson what he was doing with her in the trance state to give her a feeling of confidence that she would know how to share things properly with children of all ages. Although Erickson is more modest in assessing his work in this case,

this author feels it to be of great significance, since it appears so clearly to illustrate psychotherapy as involving the synthesis of new psychic structures rather than a mere restructuring of old material. The author (1972) has recently presented in great detail a number of unusually revealing examples of the spontaneous synthesis of new personality structures in series of dreams.

This, then is a basic issue which future research and practice must resolve: Is hypnotherapy (and psychotherapy, in general) to be concerned with the actual synthesis of new psychic (and behavioral) structures, or is it basically dealing with the creative reutilization of previous learnings? It is easy enough to acknowledge that both are probably involved in practical work, but the future development of both theory and practice may be greatly accelerated by clarifying just when and exactly how each are used.

**Stage 1:** Central Neurotic Complex  
(N.C.)

**Stage 2:** Shattered  
Neurotic Complex

**Stage 3a:** Newly Synthesized Connections

**Stage 3b:** Newly Synthesized Meaning-  
Complex

**Figure 1.** An outline of shock therapy (Stage 2) and creative moments (Stages 3a and b) involving - the synthesis of new connections (Stage 3a) and/or a new meaning-complex (Stage 3b).

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# **Facilitating a New Cosmetic Frame of Reference**

Milton H. Erickson

Unpublished manuscript, 1927.

A sophomore in college, majoring in home economics, sought therapy because of “awful inferiority feelings” that seriously restricted and hampered her daily adjustments. The essential facts of her history were few and easily understandable. She had experienced no personality difficulties until the onset of puberty. At that time, during a pleasure drive in the family automobile, an accident had caused her to be thrown out of the car. The only injury she had suffered was a “gashing of the right side of my mouth, which caused awful scarring. That’s why I keep the right side of my mouth covered with my hand, or I turn my head away so that you can’t see that side of my face.” This mannerism had been noted as constantly present. She was unwilling to exhibit the scar to the writer, insisting that it would “disgust” him if he were to see it.

Additional inquiry disclosed that, although she was right-handed, she had learned to eat left-handedly in order to keep the scar covered while eating. Only in the family circle would she briefly discontinue her hiding behavior. She tolerated no mention of her disfigurement, however, by anyone. On the street, in social gatherings, or in the classroom she kept the right side of her mouth covered. She had escaped physical education in high school and college by means of a medical excuse from the family physician.

Because of her need to hide the scar, she was handicapped in numerous other ways. She could not drive a car because that would leave her face uncovered. Neither could she swim except in privacy. Everything she did was governed by her compulsive need to keep the right side of her mouth covered by either her left or her right hand. Even her association with men was markedly limited, despite her actual attractiveness. In fact, her social engagements with men were limited to walking on the man’s right side in the dark. On such walks she would not smoke, although she enjoyed smoking, for fear that the glowing of the cigarette would light up her face. However, she would permit kissing, which she enjoyed very much, providing the darkness was deep enough.

Many efforts had been made to have her wear special cosmetics, since she was “so sensitive about a little scar.” This she refused to do; why, she did not know. On her own initiative she had visited a number of plastic surgeons, since her parents had “always taken a completely unreasonable attitude” about the scar. However, all three plastic surgeons had taken “the same unreasonable and unsympathetic attitude my parents took.” The result was that she had intensely hostile feelings toward the medical profession.

The rest of her history was not indicative of any other problems, although it illustrated many more of her handicaps in daily behavior. Essentially, her situation was that of a

young girl with one arm paralyzed and held in an awkward position covering her scar. Her object in seeking therapy was to learn how to adjust to her handicap without correcting her behavior. She was not receptive to any ideas about the possibility of altering her understandings about the “awful scar.”

Not until the third interview would she permit the writer to see the scar. It was examined at great length but without comment. Finally, her extreme tension was relieved by telling her that she might again cover it with her hand and keep it covered.

### **CONCRETE DISPLACEMENT OF SYMPTOM**

During the taking of her history it had been learned that she had considerable talent in sketching, in which she took a great deal of pride. Accordingly, she was given the assignment of going home and, in the privacy of her room, making a life-size sketch of her face, showing the exact position, shape, and size of the scar. This was to be done with every possible attention to the minutest details, and the sketch was to be “true to life and scientifically accurate.”

When she succeeded in producing a sketch that she was confident was “accurate and true,” she was to bring it to the writer. If she wished, she could bring it in a sealed envelope that would not be opened until she was sure that she was willing for the writer to examine it. She spent the rest of that day and a good share of the night perfecting the sketch, which she brought to the writer in a large, unsealed manila envelope. Since she expressed full willingness, a hasty glance was taken at the sketch, and it was then replaced in the envelope and filed in her case history folder. It was noted that she still kept the scar hidden but that she was much less tense and anxious. Instead, she appeared much bewildered and puzzled.

### **TRANCE INDUCTION AND POSTHYPNOTIC SUGGESTION**

She had previously refused to permit hypnosis, but she now readily accepted the suggestion that a trance should be induced so that she could be given a new, different, and unrelated assignment. A fairly deep trance was readily induced, during which she kept her left hand over the scar. Her next assignment, she was told, was twofold. She was to visit the college library, consult her mother, inquire of fashion experts, or consult any possible source she could discover to learn everything possible about the old-time practice of applying “beauty patches.” This done, she was to make a series of sketches of women’s faces showing the various shapes and locations of beauty patches. All of this was to be done in the waking state, but with no conscious awareness of why she was doing it. Nevertheless, she should know that she was doing it and wonder why. When the task was comprehensively done, she would decide to show the sketches to the writer. Each sketch would be similar to the self-portrait she had executed, and each would illustrate the use of a single beauty patch. She was then awakened with an amnesia for the trance events.

## **SHOCK AND SURPRISE: CONFLICTING FRAMES OF REFERENCE**

About two weeks later she appeared with a collection of sketches amply illustrating shapes, sizes, and locations of beauty patches. She was intensely puzzled and curious about the overwhelming interest she had experienced in executing this assignment. She was asked to exhibit the sketches and to discuss them. Fortunately, all these sketches were on sheets of paper the same size as her first drawing, and all the feminine faces she had drawn were similar in outline to her self-portrait.

Advantage was taken of this to run hastily through the drawings, asking a simple question concerning each, and then to slip into the pile her self-portrait. She was then asked to scatter them over the table and to identify each particular type of beauty patch, whether a crescent, a star, a diamond, or whatever, and to give the reason for the site of application.

So engrossed did she become in this that she failed to recognize immediately the self-portrait. Instead, she described the scar as a six-pointed-star-shaped beauty patch applied to the corner of the mouth to attract attention to that feature as one most attractive. The fact that it was six-pointed instead of five-pointed puzzled her, and she expressed her surprise because she was certain she had only drawn five-pointed stars. As she puzzled over and examined the drawing further, she finally recognized it, with a sense of shock, as the self-portrait. For the next five minutes she faltered in her speech and stammered fragmentary utterances as she strove to integrate two conflicting frames of reference—the one centering about her “awful, disfiguring scar,” and the other, her six-pointed-star-shaped beauty patch properly placed in relation to her definitely attractive mouth.

## **REINFORCING THE NEW FRAME OF REFERENCE**

Finally, as she sat there, helpless in the face of her new understanding of her scar, she was told:

Your parents, your brother, your friends were all so “unreasonable” as to think that your scar was just a beauty patch. The plastic surgeons thought so, too, and brushed you off as a silly girl who refused to recognize the scar for what it was. I, too, am sufficiently unreasonable as to see that scar as a little white star-shaped beauty patch at the corner of a very pretty mouth. *And you yourself—in fear, distress, abhorrence—drew your portrait accurately and well, and without knowing it you portrayed that scar for what it was, a beauty patch which, unguardedly, you recognized correctly.*

Now, let's be scientific about this. Beauty patches are intended to draw attention to the most attractive feature. You have pretty eyes, you have a pretty dimple in your left cheek, you have a pretty mouth. You like to be kissed, and a number of boys have kissed you. Go out with them again, one by one. Let them kiss you goodnight under the porch light. Make a mental note of where they kiss you, on the left side of your mouth, full face, or on the right side. I think they will kiss the side with the beauty patch. *You will find out.*

Now, go home, take these sketches—all of them—with you. You did them carefully and well. You learned a tremendous amount from them. You can keep the sketches, or you can give them away. *But what you learned from them you will always keep.*

### **SYMPTOM RESOLUTION AND SIX-YEAR FOLLOW-UP**

Subsequently, she reported that she was invariably kissed on the right side of her mouth. (The objectivity of this report is open to serious question, however.) Moreover, she rapidly freed herself from the habit of covering her mouth and lost her feelings of inferiority. She married two years later and now has four children.

# **The Ugly Duckling: Transforming the Self-Image**

Milton H. Erickson

Unpublished manuscript, 1933.

Two young women, high school classmates but not friends, were in love with the same young man. One girl was rigid and prudish; the other girl, was decidedly permissive. When the latter was about three months pregnant, she and the young man were married. Three years later the man divorced his wife for adequate reasons, and two years later he married the other girl. A baby girl was born to them two years later, much to the father's delight.

The marriage continued reasonably happy with one exception. The mother was much too puritanical with the daughter, who at the age of 25, became the writer's patient. The daughter sought psychiatric help because her marriage of four years' duration was becoming seriously unhappy. Her story was to the effect that her husband was an "intolerable, unspeakable liar," and had been since she first met him. She had excused him during their courtship and for the first year of married life because "you have to take what a man says when he is in love with lots of salt." Now, however, because her son was almost three years old and beginning to understand many things, she did not want his father "constantly telling lies."

Many times she had tried to discuss the lying with her husband but found herself unable to do so because he was "so sweet and loving" and because "I suppose I wish his lies were true. I can't help it." Nevertheless, within the past year she had become so tense and so irritable and so unable to discuss anything with her husband that she had been resorting to unprovoked temper tantrums, outbursts of screaming, threats of divorce, and ideas of suicide. At no time had she been able to discuss her husband's lying with anybody, and only his insistence that she consult a psychiatrist resulted finally in her call on the writer.

A previous visit from her husband disclosed him to be much alarmed about his wife's mental state, since he could only describe her sudden outbursts of violent temper and hex bouts of weeping, which she apparently could not explain to him. He knew of no provocation whatever and considered the marriage otherwise a happy one.

The patient was most unwilling to reveal what lies her husband told so repetitiously, insisting that the writer need only instruct her husband to tell the bare, simple truth. Finally, after extensive persuasion, she agreed to inform the writer. In effect, her husband, because he was in love with her as a person, out of the mistaken goodness and greatness of his love, insisted on telling her that she was pretty, that she was cute, that her hair was lovely, that he liked the tilt of her nose, "and all those silly things that men, when they fall in love, say."

She went on to state that ever since she was a tiny child her mother had "daily" told her that she was homely and unattractive, that her lack of beauty was a cross she would have to bear cheerfully and gladly. In addition, it would be only right and good for her to develop a charming personality, since that would last a lifetime, while beauty always faded away.

As a small child she had not been much concerned about her looks. In high school she had developed considerable self-consciousness, but had finally resigned herself to her fate and enjoyed "exercising her personality." She seldom accepted a second or third invitation from the high school boys because they "lied" to her about her looks. Following graduation she had obtained a secretarial job, which she continued until her marriage.

Her first social engagement with the man she married had impressed her indelibly. He had told her then that she had the most charming personality that he had ever encountered. This had been reiterated during subsequent engagements, and not until later had he told her how pretty she was. She had accepted these compliments then because he was in love with her and because they were in accord with his response to her personality. Therefore, his "lies" could be forgiven as emotional exaggerations.

With the advent of pregnancy, however, her nipples had become very deeply pigmented. Her mother had informed her that child-bearing always cost a woman whatever little beauty she had. The daughter's reaction was one of acceptance of "that fact" and strong resentment toward her mother. Thereafter, visits at the maternal home became much less frequent, and finally, they were limited to holidays and family anniversaries.

Her husband, however, had not manifested any dislike for the nipple pigmentation. In fact, he had "falsely acted pleased" about it. This, coupled with his continued expressions of his regard for her "beauty," had placed her in the unbearable situation of being constantly reminded by his compliments of her misfortune and his mendacity. She felt that a solution to her problem would be a straightforward, open, honest recognition of the fact of her unloveliness. Then the question could be dropped, and no further references need ever be made to her looks.

A careful attempt was made to get her to evaluate her features one by one, since, to the writer as well as to her husband, her features were better than averagely attractive. Her ideas were rigidly fixed, however, and she promptly accused the writer of trying to gloss over her lack of beauty to pacify her. Accordingly, the effort was abandoned. Despite her impatience about the writer's interest in "irrelevant matters," inquiry disclosed no other significant problem. Her son was described as the "spitting image" of his father. "You can tell them apart because Johnny doesn't have a moustache."

When questioned about the possibility that her husband might actually believe that she were pretty, since "people often tell lies until they actually believe them," she was rather nonplussed. After some thinking she stated that, if such were the case, therapy might help

her to tolerate the situation better, so that she would not lose her temper and become so depressed by his mistaken beliefs.

### ***THERAPEUTIC TRANCE, EXPECTANCE, AND INNER SEARCH***

Since she was aware, through another patient, of the writer's use of hypnosis, it was a relatively easy task to interest her in hypnotherapy. She was a good subject, required little training, and was most cooperative. As the first measure, although extensive inquiries had been made previously of her husband, she was asked to list the various nursery tales she read to her son and to the six-year-old neighbor girl for whom she often cared on weekends. Among the tales was one she read with great frequency, "The Ugly Duckling." She was asked to recite in the trance state a number of the stories, among them "The Ugly Duckling." No special attention was apparently given the story by the writer. However, her husband stated that she had read the "Ugly Duckling" story to her son frequently since about his second birthday.

At the next session she was told in the trance state to discuss her husband's heavy, dark-brown moustache. She expressed great admiration for it, repeated how she insisted that he grow one, since it would make him look distinguished, and had refused to let him shave it off. During their courtship she had insisted that he grow one, and he had done so. Still in the trance state, she was instructed as a posthypnotic task to take a heavy, dark-brown eyebrow pencil and to paint a moustache on her son as a practical joke on her husband. Then, after they had finished laughing at it, she was to examine it and her husband's moustache and to learn to understand something of great importance to her. What this was she would not know at first, but at the right time it would become fully understood—with tremendous force.

At the next session she was to relate her reaction to the moustache on her son. In effect, she described it as a "hideous thing" since it did not "fit" on Johnny's face, even though a moustache looked so well on his father, and despite the practically identical facial appearance of father and son. She also expressed feelings of a vague inner unrest, as if she were trying to understand something she already knew.

She was then hypnotized deeply and told that her unconscious was to remember a nursery tale and to think that tale over without letting her conscious mind know about it in any way. This nursery tale would be selected by her unconscious because it would apply to her in a most peculiar way and would fulfill her need to understand adequately certain things she had to know about herself. Furthermore, she would have to search through the nursery tales with which she was acquainted, that none of them would seem to her the right one, but that she would finally give up the task of searching and just take the handiest one, hoping that it would be the right one. Several days would have to be spent by her unconscious in its study of the tale. Also, she would probably dream about it, happy dreams, but she would not remember her dreams. Neither would her unconscious let her know what it was thinking about. Nevertheless, she would be consciously aware that something was happening within her, altering her attitudes and understandings.

At the same time, in some way, the moustache painted on her son's face, so hideous to her and so out of keeping with his face, and her husband's moustache, so attractive on him, would fit into the nursery tale in some way that would clarify all of her thinking and establish those attitudes she so greatly wanted.

Finally, just before her next session, she was to be unconsciously impelled to do something that would inform the writer, immediately as she entered the office, that her unconscious had completed its tasks adequately. Then, during the session, either in the waking or the trance state, she would begin to discuss with increasing understanding her new, altered, unconscious understandings, and thus make them a part of her total life reactions and attitudes.

She was seen five days later. She apologized as she entered the office for being late, explaining that she had been detained at the beauty shop where she had "blown the works." She added that in the past she disliked going to beauty shops and had never had more than a permanent wave, but this time she had had everything they could offer. No comment was made except to state that she really could "follow orders." This puzzled her, but she began a casual conversation, suddenly interrupting to state that she wanted to talk about the moustache she had painted on her son and about her husband's moustache.

She was told to think over the topic carefully and to organize her thoughts. After a few minutes she began, explaining in effect that she had duplicated on her son's face a replica of her husband's moustache, in smaller size but of the same dark-brown color and shape. The effect had been grotesque and hideous because it did not "fit." The boy was too small, his appearance was too young, and hence, despite his extreme resemblance to his father, the result was a distasteful mockery. Only when he became old enough and mature enough would the dark-brown color on his upper lip be attractive.

She paused, blushed, and impulsively declared, "It's just like nipples." A further pause, "A girl's nipples should look young, but when she has matured and been pregnant, they really should look different. Why, it would be like a grownup man who had a boy's skin on his face. It wouldn't look good." After a pause she added, "Maybe I better stop trying to look at myself as if I was a little girl. My husband sees me grown up."

This observation elicited a startled silence in her. Then again she began, "I've just thought of 'The Ugly Duckling' story. All my life I've read that story over and over. I never knew why. And the last few days I've been so absentminded. I've just been keeping that story in the back of my mind. Do you know, I bet those old ducks still think that swan is ugly. It had to join the swans to find out that it was beautiful."

Reply was made, "The old mother duck will always think the young swan is ugly, but what will the other young swans think? And what will the young swan really know about itself?" Before she could reply, she was told emphatically, "You know and you will always know."

"And now, when your husband comes home tonight, why don't you cuddle up to him at the door and ask him simply, immediately, 'Don't you want to take a pretty girl out to dinner tonight?'"

"Your next appointment will be in one week's time at the same hour."

Thereupon she was summarily dismissed.

Her husband was seen before she was. He reported that she had obeyed instructions exactly and that he had been so astonished that he had forgotten a business appointment and enthusiastically agreed to her suggestion. He was most emphatic about the transformation in his wife, expressed curiosity about what had happened, but agreed to await such time as she chose to discuss the events of therapy.

At her interview the discussion was kept on a vague, casual level. About three months later she asked for an appointment. The purpose was to discuss any possible need to inform her husband of her original "silly ideas." Inquiry disclosed that he had apparently lost all curiosity. A year has passed. They were seen again because they brought to the writer a young couple, intimate friends of theirs, who were considering divorce because of marital problems, and they wished the writer to handle that problem as well as he had handled hers. Inquiry disclosed them to have been adjusting most happily.

# **A Shocking Breakout of a Mother Domination**

Milton H. Erickson

Previously unpublished manuscript, circa 1936.

Dr. X received over 300 hours of intensive psychoanalytic therapy by the past president of the American Psychoanalytic Association and of the International Psychoanalytic Association. This therapy had been without any therapeutic results. He was then taken over as a patient by another past president of the American Psychoanalytic Association and underwent another 300 hours of intensive psychoanalytic therapy with no results. He was then referred to the author.

## **CONSCIOUS LIMITATIONS AND HYSTERICAL DEAFNESS**

About six hours were spent determining the fact that there was no approach to him to be made at the conscious level. He could narrate his obsessional fears, doubts, and compulsions, but if any comment of any sort were made to him during the hour, his eyes would glaze over, and it was entirely obvious that he would develop a hysterical deafness. This was tested by sounds that should have elicited startle reactions. Apparatus had been rigged so that a sound could be produced behind him, so there would be no possible visual awareness of what was about to happen. He made no startle or response of any kind to these unexpected sounds. It was found, however, that he would maintain sufficient visual awareness and sufficient selective hearing that he could hear and understand when the author was not speaking about him as a patient.

## **TRANCE INDUCTION AND TRAINING FOR POSTHYPNOTIC SUGGESTION**

Having made these determinations, in the next two hours he was given the explanation that he would be hypnotized, and no effort of any sort would be made to do therapy, that every effort would be spent in training him to be a good hypnotic subject. To this he agreed readily in the same passive, accepting manner in which he had come for therapy. He entered into a deep somnambulistic trance quite readily, and a considerable amount of time was spent in teaching him to experience the various hypnotic phenomena, particularly the execution of posthypnotic suggestion. These were of great variety, but there was a careful avoidance of anything that might be construed as therapeutic. At a later date, during a three-hour session, a deep somnambulistic trance was induced, and there was a systematic presentation to him of a long series of posthypnotic suggestions. These were explained as suggestions that he would not have to execute during the trance; that they would be without therapeutic effect in the trance; that they were posthypnotic suggestions that would be carried out at a later date in a situation far removed from the author's office and at a time when he and all others would recognize him as in the

conscious state. Interwoven with these suggestions was the reassurance that he need not be afraid of listening to these posthypnotic suggestions, that he could comfort himself by knowing that, as he listened to them, they were without effect upon him as a person and as a personality; that they could have no significance until some time in what would seem to be the remote future. An example was drawn for him to the effect that he could readily accept the suggestion here and now; that two weeks from now, on a specified date, he would eat a beefsteak and that in no way need he reject that possibility. Similar parallels were drawn to ensure his full understanding that he could accept all posthypnotic suggestions and merely thoughtlessly postpone their effectiveness to what would seem to him to be the remote future.

These posthypnotic suggestions had been worked out with a great deal of care, and they were developed on the basis of the information given to the author by the patient's wife, an intelligent, cooperative, long-forebearing person who had endured her unhappy lot without complaint.

In essence the situation was that he was completely ruled by his mother. He and his wife had been married 15 years. The parents had given him and his wife a house alongside of theirs. The bride and groom had not been permitted to go on a honeymoon. His mother had insisted that he take two weeks off from his practice and honeymoon in their new home. To the bride's horror the groom's mother showed up in her kitchen the next morning to prepare breakfast. She had decided on the menu, and the bride and groom had to eat what she cooked. Mother also prepared lunch and the evening meal, besides telling them when to go to bed and when to get up. This type of behavior on the part of the husband's mother had continued for the entire 15 years of their marriage. Mother took them to church and made them sit in the pew with the young husband next to his mother and separated from his wife by his father. Mother took them out to dinner at her favorite places. Mother took them to her choice of places of entertainment. In brief, in the entire 15 years of that marriage the mother had dominated every detail of their home.

Mother belonged to the Woman's Christian Temperance Union and during medical school when he lived in the fraternity house, Sonny had imbibed alcoholic beverages. He had never dared tell his mother, and at least once a week she delivered a sermon on the evils of alcohol. Neither was he allowed to drink soft drinks, tea, or coffee. He had once ventured to request the privilege of drinking buttermilk, but his mother had expounded on the virtues of drinking only water and pasteurized milk.

Mother picked out his shirts, his ties, his shoes, and his underwear; she specified every change of clothing down to which suit he was to wear on which occasion. Mother did permit him to go to the office unescorted. But on any other trips away from home she went with him and handled him as if he were around the age of three or four years. Initially in his married life he had walked to his office; Mother said the exercise was good. But after the first year he began to leave early in the morning to avoid having people see him alone on the streets. His mother approved of long hours spent in the office, and he began working late at night in order to avoid being seen; this was not too effective, however so he began coming home by way of alleys.

In his practice of medicine he was engaged in a specialty that permitted the minimum of contact with his patients, most of whom were seen by his office help and technicians. His mother insisted that he go to medical meetings, but she always escorted him there and back. Very promptly he became too self-conscious to participate in any activities of the county medical society. In fact, he began avoiding speaking to his fellow physicians. After 12 years of this he sought therapy, and his parents begged for a special, private room at the institution where he was treated. His mother took lodgings nearby, was permitted to visit him daily and took him for walks, so that he did not participate in any of the institutional activities for patients. Since he made no improvement after over 300 hours, his mother decided to seek another therapist; she escorted him to that therapist's office and accompanied him back home. This the therapist permitted.

When Sonny was brought to the author for therapy, Mother was told in most emphatic terms that she could not accompany him to the office, that she would have to delegate that responsibility to his wife. The author finally succeeded in conveying to the mother the idea that forcing the wife to bring her husband to therapy would be an appropriate punishment for the wife, and that she in her earnest solicitude for her son's welfare should see to it that his wife undertook the punitive duty of bringing her husband for therapy.

The interview with the wife after this hoax had been perpetrated upon the mother was most delightful. She was an intelligent, capable young woman who felt herself hopelessly lost in dealing with her mother-in-law and incapable of weaning her husband away from her. It was possible to talk to her freely and frankly and to secure her promise of secrecy about the author's plans. In fact, she was most delighted with the author's intentions and most enthusiastic about cooperating. She was told to let Mother continue her domination unabated but to look forward with mirthful anticipation to what was going to happen to Mother.

The posthypnotic suggestion given to the patient in the deep trance had been worked out in extensive detail, and the patient's wife had been consulted extensively to ensure its completeness. The explanation was given to the wife that the patient could not accept therapy in the ordinary waking state and that he did not accept it in the trance state. The approach employed was to use hypnosis to impress thoroughly upon the patient's mind all the things that would lead to therapy in the trance state, but with the suggestion that they would be inoperative in that trance state. He was told that all therapeutic suggestions would become uncontrollably effective at a specified date in the future when he was in the state of full conscious awareness. In other words, the therapy was given in the trance state but remained inoperative until some later time of full conscious awareness, at which point it would become compulsively effective.

### **A SHOCKING BREAKOUT OF A MOTHER DOMINATION**

When all of the posthypnotic suggestions had been completed, a specific date and a specific hour was set; namely, 10:00 A.M. on Sunday morning, the hour at which the

mother always came to take her son, his wife, and their two children to church. That morning mother had already prepared breakfast for her son and his family and had gone home to dress for church. Her son and his wife and family had also dressed for church. The mother came in, and her son greeted her as usual; then as related by his wife, in full agreement with posthypnotic suggestion, the son said, "Mother, would you please come into the kitchen for a minute?" His mother wonderingly followed him. He walked over to one of the kitchen shelves, took down a bottle of whiskey that was only partially corked so that he could remove the cork easily, and poured out a glassful while his mother stood in shocked, silent horror; then, with a stream of profane and obscene expletives, he declared his intention to get drunker than a lord, and that she was to haul her f—a—to church without him—whereupon he promptly drank six ounces of straight whiskey. What the patient did not remember was that immediately after breakfast he had gone to the bathroom, had inserted his finger in his throat, and had vomited up his entire breakfast. The impact of the six ounces of straight 100 proof whiskey was most startling, and it was added to by the posthypnotic suggestion. He collapsed on the floor; his wife and his mother undressed him and put him to bed, while he sang some unexpurgated songs dating back to his fraternity days; then he collapsed in a drunken stupor. His mother was so horrified that she went home and took a bath, having missed church for the first time in many many years.

She remained in bed until the next morning, when she came over to fix breakfast. As she came in, she found her son awaiting her in the breakfast room. He greeted her most profanely and obscenely, explaining, "I have been waiting for you because I am thirsty for another drink of whiskey," and thereupon he drained a glass of what appeared to be whiskey. Actually, it was tea prepared by his wife to look like whiskey. Having drained the glass, he said, "Now I had better stagger off to bed," and he began singing, "Drunk today, drunk tonight, drunker than I have ever been before." His mother left in tears and went to bed for the day and night. As soon as his mother was safely out of the house, one of the children kept watch in case the mother or father should appear. The man's wife prepared the first breakfast she ever had in 15 years of their married life. The patient notified his office that he was indisposed and he would not be in that day. At noon the patient's wife prepared lunch, and that evening, the dinner. They went to bed at the hour of their choosing. In all of this the patient's wife played a passive, submissive role in relation to her husband just as she had to her husband's mother, and in response to posthypnotic suggestion the husband began to rejoice in his wife's attitude toward him. The next morning the mother stalked into the house and said she was going to clean it out. She saw the whiskey bottle actually filled with tea and dumped it into the sink. She found another bottle of whiskey that had not been opened, and she rejoiced mightily in opening it and draining it down the sink. Then she ordered her son to march into the living room to listen to her while she "explained a few things." She also demanded that his wife and children do likewise. Very meekly the patient did as told, and as the mother began, "Now you listen to me," her son pulled out a half-pint flask of actual whiskey and drained it before his mother recovered her poise sufficiently to rush at him and take it away. The wife had immediately seized the two children aged 12 and 10 and rushed them out of the room. The patient profanely and obscenely told his mother that if she ever again came into the house without an invitation, he would promptly get

drunk, and that he might even ask his wife to get drunk with him. He then ordered her with much vulgar language to get out of the house, saying that if she dared to call any physicians or any friends to come to see him, he would take extremely unpleasant measures against her.

Mother left rather frightened. For the next three months she did not appear, but her son noted that she was watching out of an upstairs window to see if he went to the office and if he was walking home. During those three months the man and his wife established a good understanding of the total situation. Also, during those three months the patient came alone to see the author to have his posthypnotic suggestions reinforced and still further elaborated. At the end of three months a new set of instructions was given the patient. He was to locate a house that he would like to live in; to make arrangements either to rent or purchase it; and then to make arrangements with the moving company to be completely moved into the new home on the other side of town during one of his parent's periodic day-long visits to an out-of-town relative.

The patient and his wife spent six weeks locating a desirable house and making appropriate arrangements with the moving company. Upon the mother's return in the evening of the day of the moving, she was utterly astonished to find a vacant house where her son had lived.

She appeared at the office the next day to find out the location of his new home. He told her coldly that he did not think she should know, and if she tried in any way to find out, he and his wife and her grandchildren would never again visit her. Greatly subdued, the mother left and made no further attempts to intrude upon her son's life.

A year later the son and his wife made a formal call on his parents, and good family relations were established. At Thanksgiving dinner the mother started to tell him what he should have on his plate and to her utter horror she saw her son, her daughter-in-law, and their two children leave the table and go home. However, they appeared for Christmas dinner, and the mother behaved herself. Thereafter good family relations were established, which the son carefully tested by offering his mother a glass of whiskey—which she politely refused—while he and his wife drank in her presence.

All together a total of not over 20 hours were spent working with this patient. (The author did not find that the previous 600 hours of psychoanalytic therapy had aided the patient's breakout in any way.) In addition to his healthy family adjustment, the patient began to participate in county medical society meetings, was elected president of the county medical society, was elected president of the state medical society, and later was elected to office in the national society of his specialty.

# **Shock and Surprise Facilitating a New Self-Image**

Milton H. Erickson

Unpublished manuscript, circa 1930s.

The purpose of psychotherapy is to enable a patient to achieve a legitimate personal goal as advantageously as is possible. Properly, it is not a matter of advancing particular schools of thought or of attempting to substantiate interpretative psychological theories, but simply a task of appraising a patient's problem or problems in terms of the reality in which the patient lives and in the terms of the realities of the patient's continuing future as he or she may reasonably hope for it to be.

The author is well aware that this brief formulation of psychotherapy and its purposes is in marked contrast to those schools of psychotherapy which insist that, as a prerequisite for future adjustment, a painstaking, laborious one-to-three-year-or-more minute scrutiny and analysis be made of the long-dead and unchangeable past before even touching upon the patient's actual present and future needs, understandings, capabilities, and possibilities.

Yet one may consider the few troubled people who are benefited by psychotherapy of all kinds and the countless numbers who, while also having problems, still succeed without therapy in achieving goals that they and others regard as constituting real personal and social success. Thus, after such consideration, one may well wonder at the self-reassuring dogmatism of the many self-styled "the one-and-only right" schools of interpretative, speculative psychotherapy.

After this somewhat acrimonious introduction the author wishes to present a case history in which there was employed successful psychotherapy caustically described by some colleagues as "unorthodox and not in accordance with established rules of psychotherapy." The fact that the patients had benefited was not considered to be pertinent to the issue by those critics.

## **CASE 1**

The first patient was a 35-year-old professionally trained woman with a master's degree. She was very slightly overweight but otherwise was decidedly attractive, graceful, and possessed of a most pleasing personality. Her major defect can be summarized in the outraged statement of an unmarried man of her own age, holder of a doctoral degree in a field of work related to hers: "If that damned girl would comb her hair, wash her ears and neck, put on a dress that didn't look like an ill-fitting gunnysack, straighten her stockings, and polish her shoes, I could get seriously interested in her."

In summary, her appearance epitomized her problem, and the above outraged statement described her appearance very well. Yet Ann was a highly intelligent young woman, and in the author's six months of professional contact with her, he had been much impressed with the clarity and lucidity of her thinking and with her ability in the comprehensive appraisal of problems. The author had also developed an earnest respect for her competence as revealed in staff conferences; however, it was also noted that Ann had neither casual nor intimate friends, with the exception of one exceedingly competent, very friendly older woman who was quite obese and who suffered from arthritis.

Finally this older woman approached the author and explained that Ann was seriously depressed and definitely suicidal despite her outward facade of a comfortable, businesslike adjustment. She explained that for a long time she had attempted to coax Ann to seek therapy, and that only recently had Ann rather unwillingly agreed to see the author—but only briefly since, to quote her friend, “The darned idiot sees no hope for herself, and I want you to take her by the scruff of the neck and shove her face into a mirror and make her take a good look at herself as a real person of value. Nobody, just nobody—not even me—can talk to her; Ann just freezes and gets deaf and blind, and you lose all contact with her. But I finally have managed to make her listen long enough so that she has agreed to see you for a ‘few times,’ if you are willing. Please, for my sake, see her because I’m frightened by Ann’s desperation.”

### **PREPARATION FOR TRANCE INDUCTION**

Ann appeared for her appointment with obvious reluctance. She was asked to take a seat beside the office door while the author sat on the opposite side of the room. She was told: “As you know, Ann, I’m very definitely crippled by anterior poliomyelitis, and anytime you want to escape from this office, you can get out of the door long before I can cross the room. Therefore you can feel safe here. And if you decide to develop hypnotic trances here, you will still have time to arouse from the trance state and get out of the office before I can cross the room. At the staff lecture on hypnosis, and at the demonstration which I gave recently and which you attended, I mentioned that several persons had unwittingly gone into and come out of hypnosis, and I refused to identify them. You, Ann, were one of those persons. Hence, I am delighted to see you here, and I hope you have come for the therapy that both Agnes and I think you need. However, therapy will not be forced on you. Agnes made this appointment for you. It will be used only to outline the situation. Your appearance here indicates that you recognize your need for therapy.

“Next, Agnes has told me that despite your salary and lack of any dependents you have so misused your income that in 12 years time you have saved only \$700, and hence you are convinced that you cannot afford therapy. Let’s correct your ideas on that at once. There is no charge for this interview. It is a courtesy to our friend Agnes, not a debt incurred by you.

“Subsequent interviews with you, if any, will be therapeutic, and they are to be paid for on my terms, and my terms only. These terms are absolute, full, and complete obedience

in relation to every instruction I give you regardless of what I order or demand. Your one and only protection from this arbitrariness on my part is that you are free to relate everything or anything you wish to Agnes first before you act upon my instructions. If she approves, you then have no choice but to obey.

“You have told Agnes you have no time for therapy. I shall, therefore, expect the most expeditious of responses from you. No dilly-dallying, no shilly-shallying. You will be told what to do, and you will do it. That’s it! If I tell you to resign your position, you will resign. If I tell you to eat fresh garlic cloves for breakfast, you will eat them. I have spoken clearly and understandably. Just as clearly do I want it understood that in psychotherapy for you, I want action and response—not words, ideas, theories, concepts. I want responses, desirable, good, informative responses of action and change, not contemplation of change, but change and action of a constructive sort. If this is understood by you, let me know and I will continue.

Ann meekly nodded her head affirmatively.

“Fine! Now listen and listen well. Think over all I have said carefully for the next three days. Understand well that for the next three long days you are to think over everything that I have said to you. If I tell you to go into a hypnotic trance, you will do so. And you and I both know, I from observation, you from your unconscious learnings and actual responses in a recent staff situation, that you can respond most adequately hypnotically. I do not care if you like that frank statement of fact or not. But you want therapy, and you have so indicated in many ways, especially to Agnes.

“After the three days you are, if you decide affirmatively for therapy, to return here for that therapy best suiting you as a potentially happy, well-adjusted person. Come at this hour prepared to stay as long as I wish, and bring your checkbook with you. Discuss this entire matter with nobody, not even Agnes, who has been told to discuss your therapeutic wishes no longer. Come prepared for and committed to therapy and to the loss of your bank account and your personality problems, but don’t come back if you are not so committed. The decision must be entirely yours.

“Bear in mind that therapy is going to meet your wishes, but it will not always be comfortable and easy. You want it done rapidly, and it will be done rapidly and thoroughly. Once you come, you are committed to therapy, and your bank account belongs to me as does the registration certificate for your car, whether in my possession or not. I will tell you what to do and how to do it, and you are to be a most obedient patient, learning fully to put into action all the ideas presented by you.

“Now go home; you have a vital decision to make. Do it by yourself. If in the affirmative, return in three days at this hour, with your time my time. Goodbye.

Agnes reported that Ann went through a remarkably silent, distraught three days and that her work suffered greatly.

## **A SURPRISING AND RAPID TRANCE INDUCTION**

Ann returned at the appointed time, entered the office hesitantly and tremulously, and stood waiting for the author to speak. She was told, "Close the door, sit down in that chair near the door, and in the process of doing those two tasks develop a deep somnambulistic trance in which you will give me your full attention mentally as well as visually and auditorily. Nod your head when you feel that you are ready for me to begin."

Moments after she seated herself, Ann began nodding her head in the typical perseverative fashion of the deep trance, her gaze fixed rigidly on the author. Her blink and swallowing reflexes were absent, and her rigid facial expression was characteristic of the somnambulistic state.

"That's fine, Ann. Continue to remain in the trance as you are now. Be receptive of everything I say. Remember you are at liberty to question Agnes on any detail that you wish, but otherwise what I say remains confidential. What I am going to say to you is not something you will expect. It will be helpful, drastically so. I will outline a course of behavior for you, and this you are to execute without fail. Do you give me your absolute promise?"

Slowly, perseveratively, Ann nodded her head.

"Are you afraid?"

Ann nodded her head affirmatively.

"You need not be afraid. I'm going to startle you greatly, and I am going to give you sharp psychological pain. Both experiences will be almost paralyzingly unpleasant, and then, as you incorporate the understandings that they signify, the pain and distress will disappear. Are you ready?"

Ann nodded her head. She was told to stand with her feet close together and her hands at her side and not to move unless there arose a good indication for moving.

As she stood waiting expectantly, the author stated, "Ann, you are 35 years old; you look at least five years or more younger than you are; you are definitely attractive in appearance; you have not had a date for at least 14 years despite your pleasing appearance, personality, and good intelligence; you are five feet three inches tall, and you weigh about 130 pounds; you have trim ankles, an excellent figure, a beautiful mouth and beautiful eyes. All this you can verify yourself."

Then in a tone of voice of utter intensity, in the manner of conveying a vitally important message, she was asked the following question: "Ann, did you know that you have a pretty patch of fur between your legs?"

For some minutes Ann stood staring at the author, blushing deeply and continuously, apparently too cataleptic to close her eyes or to move in any way.

“You really have, Ann, and it is definitely darker than the hair on your head. Now at least an hour before your bedtime, let us say at nine o’clock tonight, after you take your shower, stand in the nude before the full-length mirror in your bedroom. Carefully, systematically, thoroughly examine your body from the waist down. Be pleased with your belly button, curious about that pad of fat between your belly button and your pretty pubic hair.

“Try to realize how much you would like to have the right man caress your pretty pubic hair and your softly rounded belly. Think of how you would like to have him caress your thighs and hips. Stand there in front of the mirror and keep standing there until you have realized all of this. Then, as you become pleasingly tired physically, go to bed happy, blushingly happy, knowing that you do have a pretty piece of fur between your legs, and fall restfully into physiological sleep, and sleep restfully the whole night. You do not need to remember your dreams, nor will they disturb your sleep; but the next day, outwardly calm and composed but inwardly warm and happy, work well and comfortably.

“Do you understand all of this instruction, and are you prepared to do it as I have outlined it? Nod your head affirmative if you understand fully:”

Slowly Ann nodded her head, continuing to blush constantly and to breathe irregularly.

“Now listen carefully, Ann. Shortly you are to awaken from your trance. You are to have a complete amnesia for all that has happened here, has been said here, has been experienced by you here. Go home, take your tub bath or shower early, dry yourself, then suddenly find yourself standing in front of your full-length mirror, staring at yourself from the waist down, and then remember in full detail everything that was said to you here, every comment, every instruction; and, Ann, execute them fully. This you will do to the full satisfaction of my instructions and to the full satisfaction of your needful understandings of the therapeutic advances you need to make.

“Then tomorrow, at this same hour, come for your second appointment. Come dressed as you are today, in the same dress, outwardly appearing exactly as you do today. Now arouse from your trance with the total amnesia I have asked for and go about your duties, unconsciously awaiting the right time tonight. And in the process of arousing gently, sit down comfortably in the chair there and then become fully alert but not curious because I dismiss you.”

Ann sat down, obviously aroused from her trance state, and looked expectantly at the author. She was told not to be curious about the passage of time (she had looked at her watch and had showed marked astonishment), that all was well and that she would, without further instruction, keep her next appointment. With a most puzzled look she departed.

She appeared a half-hour early for her next appointment, but spent that extra time pacing back and forth in front of the office as if attempting to make up her mind whether or not to keep her appointment. Exactly on time she entered the office, her face bursting red with blushes. Precipitously she declared, "I remember everything. I don't know what to say."

"Just close the door and sit down in that chair."

She did so, immediately developed a profound trance, and sat looking wide-eyed at the author, still blushing.

"I see that you want therapy and that you did as you were instructed."

Blushing more deeply she nodded her head perseveratively.

"Now stand up in the same way as you did yesterday. Thank you! Now listen to me well, carefully, thoughtfully. Yesterday, quite drastically, in a fashion which you could not avoid understanding and which precluded any possibility of suppression or repression, I asked you to become fully aware of the badge of femininity which you wear, a badge of femininity which you should rightly treasure in all ways.

"But that is not all of which you are to become aware. Tonight, even as last night, in the same sequence of events as I described yesterday, find yourself unexpectedly in the nude in front of the mirror, then suddenly recall all the instructions I have already given you here in the office and which I will give you today.

"Tonight, as you stand in the nude in front of the mirror, look at your badge of femininity, be pleased with it, even blush, and then suddenly, as if it were for the first time that you saw them, look well at the two emblems of womanhood you wear on your chest.

"Examine them carefully, both visually and tactually, thinking over carefully all the things that you know I could tell you to think—all of the things I could tell you to think over. Is it necessary for me to elaborate?"

She slowly shook her head.

"Will you do it even more elaborately than you think I would order you to do the task?"

Ann began blushing in waves as she tried to turn her head aside, and then, yielding, she nodded her head affirmatively.

She was then instructed to return the next day and to appear in the same dress and outwardly unchanged. Next, she was told to sit down, to arouse from hypnosis with a complete amnesia for everything until the crucial moment before the mirror that night.

As she aroused from the trance, she was told, "That's all for today." Her face expressed bewilderment, she looked at her watch in a most puzzled fashion, but she departed without saying anything.

She appeared on time the next day, blushing deeply as she entered the office. Without any hesitation she promptly closed the door, sat down in the chair, and immediately developed a profound somnambulistic trance; her blushes disappeared.

She was immediately asked, "Do you want to say something?"

She nodded her head.

"All right, say it now to your full satisfaction."

Promptly she stated, "I did all you said, I did it better, I think, than you could have asked." Then with many blushes she asked, "Do I have to tell you?"

"No, Ann, the fact that you have obeyed instructions fully, even better than I could expect, and since your question implies your willingness to cooperate in therapy by relating things you reasonably can expect me not to know, your progress is entirely satisfactory."

Ann ceased blushing and waited expectantly.

"Did you remember everything both times upon awakening, yet handle your awarenesses well throughout the following day?"

Ann nodded affirmatively.

"Now stand up as before, beside your chair. Today's task is much harder, much, much harder, much more troublesome, much more painful. Upon leaving here you will notify your office that you will not be there the rest of the day. You will leave here with an amnesia for what I am about to say to you, but still fully consciously aware of the learnings you have acquired the past two nights.

"Listen well! You have heard how many a mother gets her small child neat and clean and declares that it seems to her that in only a few moments' time he becomes unbelievably untidy. Now listen, Ann! This is the third day you have been in the office. It is not the first time you have worn a dress three days in succession. I merely ensured no accidental change of dress. Now listen carefully, storing every word in your unconscious mind for sudden, full conscious memory when you find yourself in front of your mirror promptly upon returning to your apartment after leaving this office. Do you understand?"

Ann nodded her head slowly, apparently bewildered by the author's rather sharp tone of voice.

“Ann, your dress looks horrible. It’s saggy and baggy and it fits you like any old potato sack, and it is wrinkled and perspiration-stained, and you don’t have a decent-fitting, decent-looking dress in your entire wardrobe. Every one is an insult to the eye. No taste, wrong colors, wrong everything, and yet you wear them to the office, on the street. When you find yourself in front of the mirror today, with full conscious memory of all that I have said and will say in this office today, examine each and every dress you have, model it, note the ill fit, the sweat stains, spots, rips, loose buttons on blouses—see how competently you dress to be an eyesore.

“And worse, Ann. Look at your hair. Never have I seen it properly combed in the six months I have known you. Always at least a couple of snarls, and that parting of your hair, how do you make it so outrageously crooked? Take a hand mirror and use it to help you to see in the large mirror. A woman’s hair is ‘her crowning glory’ or, in your case, Ann, your crowning disgrace.

“More yet! Have you a personal prejudice about washing your ears and behind them? Don’t answer, but look in the mirror and get an answer then! And your neck! You take a shower or a tub bath, but how do you forget to wash your neck? It must be an art, an undesirable art. Who would want to neck with a dirty-necked girl, a dirty-necked girl like you?

Shudder about that a bit as you look in the mirror. If you want feminine corroboration of all I’m saying, get Agnes to let loose some of her suppressed feelings. You will like them less than what I am saying to you. “How often do your fingernails go into mourning with that line of black dirt under your poorly trimmed fingernails? Do you think it is pleasing to hold hands with a girl whose fingernails are in mourning? Don’t answer.

The questions are rhetorical. For six months I have known you with mussy hair, dirty ears and neck, displeasing, disgusting fingernails, and ill-fitting, untidy dresses, wrinkled stockings—take a look at those, too, tonight. What a slob you are outwardly!”

“You have \$700 in the bank. You can borrow money. Go downtown to Department Store X. Seek out Miss Y. I know her; Agnes knows her; I’ve spoken to her sufficiently about your needs. Tell her that you want her to teach you that vast amount of learning you lack but which every woman should have as second nature. Miss Y will be reasonable; accept instruction fully, buy everything you need, get some pretty dresses that fit you, some deodorants and antiperspirants, learn to comb your hair—say a happy goodbye to your \$700 and what more you borrow. Arrange for time off work—this I know is possible. There is more I could say, but it really isn’t necessary to elaborate.

There is just one question that intrigues me, but do not answer. It is, where did you get the good sense to go to the dentist to keep your teeth in such good shape, or do you just naturally have such beautiful teeth? Well, use them to sink into the task before you.

“Now you are to leave here with a total amnesia for all that has occurred today in this office. For any reason that comes to mind, notify the office of your absence for the rest of the day. Go to your apartment. Look around happily. It is neat and tidy. Agnes has told

me so. Feel pleased with it. Then step to the mirror and let the ‘horror show’ begin, and stay to the bitter end and then realize what happiness can be yours.

“A closing remark to you is this: awaken and leave promptly upon grasping the meaning of what next I say. Let me see no more of you until you keep your next appointment as a ‘vision of delight.’ Now get out of here and close the door from the other side.”

She left hurriedly in puzzled bewilderment.

A month passed, and late one afternoon Ann entered the office blushing furiously, smiling happily but embarrassedly, most beautifully gowned. She explained that she was going to a very “special” dinner and dance with a very “special boy friend” and that she would tell the author all about it later, as indeed she did, and she added with much self-consciousness that she hoped she was a “vision of delight.”

Within a year Ann was engaged to a physician; she married him shortly thereafter and moved to another part of the country. Occasional news was received about her. At the age of 45 Ann was encountered unexpectedly while she and her family were on a vacation trip. She was the mother of four children; she appeared to be not over 40 years of age, and she was exceedingly happy. Her husband had achieved marked recognition in his specialty, and the entire family was obviously happy and well-adjusted. One careful comment was made by Ann to the effect that, bit by bit, as her daughter grew old enough to understand each item, she intended to teach the child progressively “how to be a vision of delight.”

# Correcting an Inferiority Complex

Milton H. Erickson

Unpublished manuscript, 1937-1938

A 29-year-old man, employed as a clerk, sought therapy in an ambivalent manner. He explained that, while he wanted therapy, he did not amount to enough to warrant anybody wasting time on him. He had sought therapy from other psychiatrists but had always discontinued because the amount of time that seemed indicated for results was so greatly out of proportion to his worth as a person. He always felt the time spent on him could be better spent on less inferior patients. He had come to the writer in the hope that hypnosis would be used and that his therapy could be expedited without depriving more deserving patients of needed time with the writer.

The suggestion was offered that he probably wished limited therapy that would meet his minimal needs. He agreed with as much enthusiasm as he could muster. He also agreed reluctantly to the idea that preliminary interviews would be spent in securing a necessary factual history, but was somewhat reassured by the statement that he could abbreviate the time by giving freely whatever information the writer wished.

His history can be summarized by first giving the recurrent theme of it and listing illustrative items. "I have never done anything very good, no matter what. I'm completely inferior in everything." He was the only child of shiftless, ne'er-do-well parents. He had failed to attend the eighth grade graduation ceremonies and felt that he had not really graduated. High school required four and a half years because of time spent in changing schools. Even so, he failed to graduate because he lacked one credit. He was always a hanger-on at social activities in school, and his diffidence and lack of self-confidence precluded any active participation. In high school, despite his excellent physique, he succeeded only in being waterboy for a brief time. He was, in his own words, "a wash-out as a waterboy." In essence, he was one of those "nice fellows" for whom the general tendency of people is to feel contemptuous pity.

His parents died when he was nearly 18. His first employment had been scattered odd jobs at manual labor. Finally, he secured employment washing cars in a large garage and graduated to the position of handyman and errand boy for everything. This led to his placement in the automobile parts department, where he actually manifested good ability. However, his willingness to work hard for a minimal salary earned him only job security and general disrespect.

On inquiring into minute details of what he could do, numerous, consistent items were discovered. A few of these may be listed:

1. He could not knot his tie neatly, nor could he tie his shoestrings neatly.

2. He was invariably five minutes late coming to work and about 20 minutes late in quitting.
3. Time after time he ruined social engagements arranged on a joint basis for him by associates by making some inept remark, such as telling his girl companion, "He [the other man] always gets the prettiest girl."
4. A final item, which he had mentioned repeatedly in giving his history, was his handwriting. It was practically illegible, and his records at work were a constant source of embarrassment, even though they constituted an insurance against his discharge.
5. One other and highly important theme in his story, reiterated again and again, was "If I could only do one thing good, just one thing, I'd have some pride in myself. Can't you learn me just one thing good?"

### **TRANCE INDUCTION UTILIZING THE PATIENT'S INFERIORITY COMPLEX**

When he had completed his story, he was told that hypnotherapy would be employed. To accomplish this, it was explained that he would be used as a demonstration subject for the writer's medical students and that the therapy would be an incidental part of the instruction of the medical students. This type of cavalier offer to help him utilized his need for inferiority even in the therapeutic situation and actually pleased him. His general pattern of submissiveness aided greatly in inducing a deep trance without difficulty. He learned to manifest readily all the general hypnotic phenomena.

Extensive use was made of posthypnotic suggestions to create situations in which his general inept behavior was brought into sharp contrast with the competent behavior of the medical students. In this way an attitude of dependence upon and security in relation to the writer as a completely tolerant, forgiving protector was established to satisfy his neurotic needs.

### **HYPNOTIC ROLE-PLAYING FACILITATING OBJECTIVE SELF-PERCEPTION**

After about 12 hours of this sort of activity, intermingled with instructional work with the medical students, he was deeply hypnotized and depersonalized. He was then induced to assume the identity of that medical student with whom the writer felt he could most easily identify. This accomplished, the selected medical student, who was an amateur actor, was hypnotized deeply and instructed to assume the patient's identity.

There followed a repetition of various of the procedures previously employed to create special situations with the pseudo-patient duplicating the patient's previous inept behavior. During this the patient, in his identity as a student, participated in the discussion of the induced behavior portraying himself. Thus he was enabled to see himself in an objective, detached fashion and, from unrecognized inner knowledge, to appreciate exactly what was occurring.

When it seemed that there had been sufficient demonstration of his ineptness, one final item not previously employed was utilized. This was a systematic calling upon various but not all of the medical students, one by one, to write and sign the statement, "This is a beautiful day in June." In each case the students were urged to write clearly and legibly. Each written production was then critically examined by the entire group, except the pseudo-patient. Among those not called upon to write was the actual patient.

Next the pseudo-patient was asked to write the same sentence. A horribly illegible scrawl with an indecipherable name was produced. (This student had previously been shown the patient's handwriting and had been asked to study it.) The pseudo-patient was urged again and again to write more legibly, but each production remained illegible.

After discussion of this with the group, the writer explained at length that the "patient" could be taught to write easily and legibly by the utilization of a special technique. Thereupon the medical student, in his role as the patient, was regressed to an earlier childhood level and asked to write simple statements. He did this in a typical childish handwriting, but legibly so. After securing samples of his handwriting at various age levels, he was reoriented to the original trance state. Again he produced illegible scrawls.

### **SERIAL POSTHYPNOTIC SUGGESTIONS AND AUTOMATIC WRITING**

He was then given a series of posthypnotic instructions to awaken and, at a specified cue, to write clearly and legibly, "It is not raining tonight" and to sign it with the names of several classmates. This writing, it was explained, would be done automatically, and he would not know who wrote it since it would be written with such legibility. Also, at a second cue he would write the same sentence again with great care and still not know that he had written it. In fact, he would vigorously deny having written either production, insisting that he could not write that legibly.

The pseudo-patient obeyed instructions in full, and his illegible and legible productions were passed around the group for criticism and discussion, while he vigorously claimed that he had not written them, a claim rendered recognizably valid by his posthypnotic amnesia.

Following this, the patient, still in a trance, was reoriented hypnotically and his identity restored. He was immediately regressed to various childhood levels at each of which he was asked to write clearly and legibly the sentence, "This is a beautiful day in June," signing his name each time and recording his age and the date. At the 14-year level a prolonged series of suggestions was given him to the effect that when he was a grown man, he would be called upon to do the same thing, and a promise was elicited that he would. He was then reoriented to the current situation with an amnesia for trance events, though still in a deep trance.

With great emphasis and care he was given a long series of posthypnotic suggestions to the effect that upon certain specified cues he would, after awakening, write automatically

the sentence, "It is a beautiful day in June," and sign it with his name. He would not know he was doing this, and he would vigorously deny having written it. Furthermore, while writing it, he would be engaged in discussing with the medical students some topic that would be raised. (The medical students were posted to have in readiness such topics as the city's population 10 years ago, the street location of some building, etc.)

Additionally, the posthypnotic cue would be repeated a number of times, and each time the writer would raise some question as, "I wonder if the same writing will appear on the next sheet," or, "I expect the next signature will have the full middle name, instead of the initial." Each such question was to be responded to by the execution of the implied suggestion.

When it seemed reasonably certain that he understood, he was awakened. After a few casual remarks, at a glance from the writer, one of the students began discussing a topic. The writer drummed briefly on his desk with his fingers. The patient abstractedly picked up a pencil and, while attending to the discussion directed at him, wrote the sentence and signed it with his first and last names and middle initial, all in legible fashion.

This sheet was quietly removed, a new topic raised, the cue given, and the question voiced by wondering if the sentence would be written. The patient responded exactly as he had been instructed. This time his attention was called to the completed writing, and he was asked if he had done it.

There followed his denials and the animated assertions of the students that he had written it. The patient "proved" his contention by copying the same sentence in his usual illegible script underneath his automatic writing. His "proof" was accepted with a show of much reluctance, and the writer took advantage of this development by asking him to scrutinize that page most carefully, to memorize its appearance thoroughly, and to be prepared to recognize it when shown it again. The sheet was then quietly put out of sight along with the first.

He was asked to count the sheets of paper on the desk and to examine them carefully, one by one, to determine if there were any writing on them. When he affirmed that there was none, he was engaged in a new topic of conversation, the cue was given as the writer "wondered" if his name would appear on the uppermost sheet. Automatically his hand wrote legibly without his knowledge.

Again the procedure was repeated, this time the writer wondering if the top sheet would be placed underneath the other sheets and if his full name would be written on the next. Absentmindedly he straightened out the sheets, slipping the top one underneath and writing his full name on the exposed sheet.

The procedure continued with the items listed below written, one by one, clearly and legibly. Repeatedly his attention was called to the fact that everybody was fully 10 feet away from him. The repetition of this puzzled him greatly.

- Sheet 3: "My birthday is November 9th. I was born in Lodi."  
4: "Natalie Williams."  
5: "2 3 8 1 9 2 9"  
6: "Look on the next sheet for the name of the person writing this sentence."  
7: "John Robert Doe."  
8: "You don't believe it, do you?"  
9: "You will—you really will."  
10: "Didn't know you could write well, did you, John R. Doe?"  
11: "You are about to find out that you can write well, and you will really know it. You will watch yourself writing and you will see it with your own eyes."

This last sheet was placed at the bottom of the pile. He was then interrupted and asked if any further writing had appeared on the paper since that sentence. He shook his head, remarked that the group was too far away, glanced at the stack of paper, and added that it was ready for writing if anybody wished to do any. He was asked if he still remembered the sheet he had been asked to memorize. He nodded his head, and the writer stepped over and handed it to him. He pointed at the "strange writing" and his own and showed it to each one in the group.

He was asked to be most certain about his statements concerning the writing and to hand it to the writer. While the patient's attitude was distracted for a moment, the first sheet was substituted and he was again asked if he were certain about the writing. As he asserted he was, the first sheet was extended to him for apparently a reinspection. He was tremendously startled to find that "his writing" had disappeared and that the "strange writing" had moved to a different position on the sheet. Further manipulation of the sheets bewildered him still more, until he declared that he did not know what to think since he knew the author was not a magician. He was assured at once that he would soon know what to think, and he would then be right.

Next he was asked to examine the stack of paper in front of him and to see if there was writing on the various sheets. He asserted that he knew there was none, but upon request he started examining them one by one.

The first few sheets were of course blank. When he came to Sheet No. 3, he commented in astonishment, "That's the same as my birthday, and I was born in Lodi. That's funny." At Sheet No. 4 he was even more startled, commenting in amazement that that was his mother's maiden name.

Sheet No. 5 bewildered him completely, and he disclaimed any understanding. However, when asked for his present street address and any other past addresses he remembered, he complied and then suddenly recognized the house number where he had lived in 1929. Immediately he looked at the next sheet, hastily read it, and then uncovered Sheet 7. He read his name aloud to himself, declaring that it was his name, that nobody else there knew his middle name, that it was not his writing, which it could not be. He reexamined

the other sheets, including the first two. This discovery of the first sheet and the second as two different written productions confused him still further.

Upon reading Sheet 8 he was too dumbfounded to speak, except to say, "I can't; I didn't." Then, after looking hesitantly around, almost furtively, he looked at Sheet 9, shook his head uncertainly, and slowly lifted the sheet to see No. 10. This he read aloud to himself in a puzzled, bewildered fashion and finally asked, "What is going on? What is happening?"

The reply was offered, "You are learning something most important. Why not look at the next sheet?" Obediently he uncovered the next sheet, read it carefully, and turned to the writer as if waiting.

Immediately, a posthypnotic cue previously employed to induce a trance was given. He developed a deep trance at once and was instructed, "You know unconsciously the whole truth about the writing unconsciously, and you are now ready to know it consciously. You can write well, you can take pride in doing something well, and more than that, you know, really know, that you can do many things well. Only one thing remains to be done before you can use all this understanding to change your ways of doing many things. That one thing that needs to be done will be done shortly."

### **VISUAL HALLUCINATIONS TO FACILITATE OBJECTIVE SELF-PERCEPTION**

"I want you to look in that crystal ball right there and see yourself writing in the unhappy, miserable fashion you have for so long. See yourself plainly. Now that that is done, see a second crystal ball alongside that one. In it you now see yourself writing legibly, and as you watch, a tremendous flood of joy and happiness and confidence and pride will well up in you, ready to become shown as soon as you awaken and watch your handwriting, 'This is a beautiful day in June. Signed: John R. Doe.' You will watch your hand write this and then write it a second time. Then you will put the sheet away and turn to me and tell me from the bottom of your heart that you can write well and you will show me by writing whatever you wish. And then all the happiness in the world will well up in you, just like in a happy little boy, a growing boy, just like in a teenager who has won first place, like a young man that has succeeded in his first big job. This joy you will really share with everybody, and we will enjoy your happiness because it means everything in so many ways to you. Now awaken and watch first how your hand writes."

Instructions were followed fully, and the writing he did of his own determining was, "I can really write—I can really do a lot of things I am going to do. John R. Doe."

Upon reading it through, he leaped to his feet and, at first childishly, then boyishly, then youthfully, demanded over and over that each of the medical students, as well as the writer, read his writing, comment on it favorably, and watch him do further writing.

About 15 minutes was spent in this emotional display. Then suddenly he gathered up his papers, handed them to the writer, and said "Thank you." Turning to the students he said,

"Excuse me a moment, gentlemen," sat down, undid his knotted shoestrings, and tied them in neat bows.

Straightening up, he addressed them, "I want to thank you gentlemen, too. If you ever need any automobile parts, I'll give you the best service in the world." After shaking hands all around, he took his departure, but he was observed entering the men's room. When he came out, his tie was neatly knotted.

He was seen two weeks later. He reported that he had been working overtime, extensively recopying for his employer all the past records of parts received and sold, so that his employer would have decent records. A month later he had received a promotion and a marked increase in salary. He had developed his social life and had joined an amateur theatrical group and was at the present rehearsing regularly for one of the leading roles. He had also been having social engagements with a young woman of his age.

A year later he was decidedly happy in a minor executive position in a large automobile-accessory firm and was considering marriage. Several years later word was received indirectly that he was happily married and still employed by the same firm.

# **The Hypnotherapy of Two Psychosomatic Dental Problems**

Milton H. Erickson

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In the practice of psychiatry one frequently encounters patients whose problems center around some physical attribute with which they are dissatisfied. Too often they seek help from those trained to deal with such physical aspects of the body, but who have not had the training or the experience necessary to recognize that the primary consideration is the patient's personality reaction, not the patient's physical condition.

Consequently, efforts to alter the physical state, regardless of the technical skill employed and the excellence of the results obtained, are not appreciated, since the patient's hopeful expectations are not limited to the actual possibilities of the physical realities. Particularly is this true in the fields of dentistry and plastic surgery, where sometimes the most skillful work may fail to meet the emotional demands of the patient.

To illustrate this general type of psychosomatic problem in the field of dentistry, two case histories are to be cited below. In each instance the patient seized upon a dental anomaly as the explanation of a definite personality maladjustment. For each, the problem of therapy was not a correction of the dental problem but a recognition of emotional needs.

Several examples of the first type of patient have been seen. Among them was one who underwent an extraction and a fitting with a denture. Her maladjustment continued, increased by her permanent dissatisfaction with the dental work. Another had centered all her life around her neurotic reactions, scorning any type of treatment. A third had been comfortingly told, when she sought dental intervention, that she should take pride in being unique, and so well had the dentist done this that she had adjusted satisfactorily.

Two examples of the second type have been seen. Both of those bitterly resented the dental correction that had been made, since they had been left with their primary personality problem unsolved.

Neither of the writer's patients reported here had sought correction of their dental anomalies nor had their dentists suggested any need for correction.

While the cases to be cited represent primarily problems best handled by a psychiatrist, there is a need for those in allied fields to be aware of the nature and possible seriousness of seemingly minor psychosomatic reactions and of the opportunities of dealing more adequately with them.

## **PATIENT A**

A high school girl sought psychiatric help because she was failing her Second-year work and because she had barely succeeded in meeting the first year's requirements. Her reason for coming to the writer was that she knew he was a hypnotist and because she had been much impressed by an extracurricular lecture he had given at the high school. As she entered the office, she remarked that she would probably be hypnotized by a single glance from the writer and that she probably would not even know she was in a trance. No effort was made to disillusion her.

She had come without her parents' knowledge because she felt that they would not understand her problem. Nor could she go to anybody else she knew because they would only minimize her problem and reassure her "falsely."

Her complaint was that she was an "absolute freak" in appearance because she had only one double-sized upper incisor tooth. This had not troubled her until the development of physiological maturity and a concurrent change in residence, making necessary admission to a high school where she knew nobody.

Her reaction to her personal and school situation had been one of withdrawal, seclusiveness, and the development of much wishful thinking in which her teeth were "normal." She found herself extremely self-conscious, was unwilling to eat in the school cafeteria, and avoided smiling or laughing at every cost: her enunciation of words was faulty because of her voluntary rigidity of her upper lip. However, her attitude in the office was one of ease, which she explained was because she was probably hypnotized.

During the interview it was noted that she relied almost exclusively on slang and "jive talk." Even in making serious remarks, she couched them in extravagances of slang.

For the next two interviews she was encouraged to display her actually extensive knowledge of, and fluency in, past and current slang, and she was delighted to display her ability. Additionally, she was an excellent mimic and had a remarkable command of accents, which she was most ready to display. Accordingly she was asked to demonstrate at length the "choppy" speech of the British and the "bitten off" enunciation of the Scotch. Also, she had an extensive knowledge of popular songs, past and present, comic strips, nursery tales, and light literature of all sorts.

The next interview was devoted to an extensive discussion of the picturesqueness of slang. This conversation unnoticeably and deviously led into a discussion of expressions, such as L'il Abner's "chompin' gum," "what big teeth you have, Grandmother," "Ol' Dan Tucker, who died with a toothache in his heel," "putting the bite on Daddy for more pocket money," "sinking a fang in a banana split," and various other expressions or phrases containing references to teeth or dental activity.

She was interested and pleased but also amused by the writer's effort to talk in "hep" style. She contributed gladly and readily to the discussion by calling upon her extensive

knowledge of references to teeth in popular songs, nursery tales, comics, and slang, without seeming to note the personal implications.

For the next interview she promised to "rattle the ivory" with every reference she could "dig up, from China Choppers to the Elks' Club." The next session was fascinating. In response to a request, in rapid-fire fashion, alternating from the British to the Scottish pattern of speech, utilizing slang to do so, she proceeded to give, from song, stories, ditties, doggerel, comics, fables, and slang old and new, innumerable references to teeth.

When she finally began to slow down, the remark was made, "When you put the bite on a job, you really sink your fang into it, but then, you've got the really hep accessory for that. Use your choppers now to chop off a bit more of the British and your fang to bite off a bit more Scotch."

She paused abruptly, apparently suddenly realizing both the personal implications and the fact that teeth could be an interesting, amusing, and pleasingly fascinating subject. Immediately, since she also liked puns immensely, she was reminded of the comic, "That's my Pop," and told to go home, look into the mirror, smile broadly, and then say, "That's my maw." If she did not understand, she was then to consult a dictionary. At the next interview she was full of smiles and laughter, greeting the writer with a wide grin and saying, "Yes sir, that's my maw."

Asked what she had been doing since the last interview, she replied that she had been having a good time "chewing international fat" (talking with various accents), thereby bewildering her teachers and entertaining her schoolmates. Asked if she felt that she were a freak, she stated that she did not but that her instructors surely did when she "chewed the frog, the sauerkraut, or the cornpone" (French, German, and Southern accents).

Subsequently, one of her high school teachers, in discussing pedagogical problems with the author, commented on a remarkable transformation of one of his students. He had first noted her as a shy, withdrawn, and inept student, one whose speech was faulty and whose recitations were unsatisfactory. Then one day she had given a faultless recitation with a strong British accent, repeating the performance on another day with a Scottish accent. Subsequently, he had heard her chattering to a group in the corridor with a Norwegian accent. He regarded her as a decidedly brilliant student, though rather inexplicable in her adolescent behavior.

Still later another instructor, in discussing his Ph.D. thesis on aspects of high school behavior, cited the instance of this same girl's remarkable transformation and her amazing linguistic abilities, which had rendered her a popular and well-adjusted, competent student.

## **PATIENT B**

A 21-year-old girl, employed as a secretary for a construction firm, sought therapy because "I'm too inferior to live, I think. I've got no friends, I stay by myself. I'm too

homely to get married. I want a husband, a home, and children, but I haven't a chance. There's nothing for me but work and being an old maid, but I thought I'd see a psychiatrist before I committed suicide. I'm going to try you for three months' time and then, if things aren't straightened out, that's the end."

She was utterly final in this attitude, and consented to only two therapeutic hours a week for three months. She paid in advance and stipulated that she be discharged at the close of the thirteenth interview. (She checked the calendar and counted the number of possible interviews.)

She was not communicative about her past history. Her parents, neither of whom had wanted her, had been unhappy as long as she could remember. They were killed in an automobile accident shortly after her graduation from high school. Since then she had lived in rooming-houses and had worked at various stenographic and secretarial jobs. She changed jobs frequently because of self-dissatisfaction.

Concerning herself and her feelings of inferiority, she listed them bitterly as follows:

1. There is an unsightly wide space between my two upper front teeth. It's horrible and I don't dare to smile. (With difficulty she was persuaded to show this. The spacing was about an eighth of an inch.)
2. I can't talk plain. (From holding her upper lip stiff.)
3. My hair is black, coarse, straight, and too long.
4. My breasts are too small, and my hips are too small.
5. My ankles are too thick.
6. My nose is hooked. (Actually very slightly.)
7. I'm Jewish.
8. I'm an unwanted child, always have been, always will be.

In explaining this list of defects, all emphasis was placed upon the spacing of her upper incisors. To her that was the causation of all her difficulties. She felt that she could adjust to the "other things," but this "horrible spacing" rendered impossible for her any hope of adjustment.

After her unhappy description of herself, she sobbed and then endeavored to leave, declaring, "Keep the money, I won't need it where I'm going." However, she was persuaded to keep to her original plan of three months' therapy.

Contrary to her description of herself, she was definitely a pretty girl, well-proportioned, and decidedly attractive. She was graceful in her movements and had good posture, except for her downcast head.

Her general appearance, however, was most unattractive. Her hair was straggly, snarled, and uneven in length. (She cut it herself.) The part was crooked and careless. Her blouse lacked a button, there was a small rip in the skirt, the color combination of the blouse and the skirt was wrong, her slip showed on one side, her shoes were scuffed, and her shoestrings were tied in unsightly knots. She wore no makeup, and while her fingernails

were well-shaped, remnants of fingernail polish were on only one hand. (She had started to apply fingernail polish a few days previously but was too discouraged to complete the task or to remove the evidence of her attempt.)

During the next four sessions she was sullen and uncooperative, insisting that the writer earn his fee by doing all the talking.

However, it was learned that she was intensely attracted to a young man two years older than she who also worked at her place of employment. She usually arranged to observe him when he went to the drinking fountain down the corridor, but she ignored him and never spoke to him, although he had made overtures. Inquiry disclosed that the fountain trips were rather numerous. She made it a point to go whenever he did, and apparently he behaved similarly. This had been taking place for the last two months.

She proved to be a rather poor hypnotic subject and only a light trance could be induced. Hence, all these and subsequent interviews were conducted in the light trance.

The next four sessions were primarily devoted to building up the general idea that, by a certain date, she was to acquire a completely new, but quiet and modest outfit of clothes and to have her hair dressed at the beauty shop. Then, at a date set by the writer, she was to go to work in her new clothes. (During this period of time she continued to wear the same clothes she had worn at the first interview). The rationalization was

offered her that since she was not optimistic about the future, she might as well have "one last fling."

The next two sessions were spent on the subject of her "parted teeth." She was given the assignment of filling her mouth with water and squirting it out between her teeth until she acquired a practiced aim and distance. She regarded this assignment as silly and ridiculous, but conscientiously practiced each evening because "it doesn't really matter what I do."

The two following sessions were devoted, first indirectly and then more and more directly, to the idea that she would make use of her newly acquired skill of squirting water as a practical joke at the expense of the desirable young man.

At first she rejected the idea, then accepted it as a somewhat amusing but crude fantasy, and finally she accepted it as a possibility to be definitely executed.

The final plan evolved was that the next Monday, dressed in her new outfit, her nails polished and her hair having been dressed the previous Saturday at the beauty shop, she would await a favorable opportunity to precede the young man to the drinking fountain. There she would await his approach, fill her mouth full of water, and spray him. Then she was to giggle, start to run toward him, turn suddenly and "run like hell down the corridor."

As was learned later, she carried out the suggestions fully. Late in the afternoon she had seized an opportunity to execute the plan. His look of consternation and his startled exclamation of, "You damn little bitch," evoked her laughter at him. When she ran, he, quite naturally, pursued her and caught her at the end of the corridor. Upon seizing her he declared, "For that kind of a trick, you're going to get a good kissing" and suited his action to his words.

The next day, rather timid and embarrassed, she warily went to the fountain for a drink. As she bent over the fountain, she found herself being sprayed with a water pistol by the young man concealed behind a telephone booth. She immediately filled her mouth with water and charged him, only to turn and run wildly as he met her charge head on. Again she was caught and kissed.

The patient failed to keep her next two appointments, and then came in at the next regular time, thoroughly well groomed in appearance.

She gave the foregoing account, and stated that the second episode had resulted in a dinner invitation. This had been repeated two days later. Now she was considering the acceptance of another invitation for dinner and the theater.

She explained further that the outcome of the silly prank suggested to her by the writer had caused her to spend many thoughtful hours "taking inventory of myself." As a result she had one request to make of the writer—namely, would he coldly, judiciously, and honestly appraise her to detail? When this was done, she would terminate therapy. The smile with which she made this statement was most reassuring.

Accordingly, her request was met by discussing:

1. Her original woebegone, desperate emotional attitude.
2. Her unkempt, frumpish appearance.
3. Her unwarranted derogation of her physical self.
4. Her misconception of a dental asset as a liability.
5. Her sincerity and cooperation in therapy, however bizarre had seemed the ideas presented.
6. The readiness with which she had assumed self-responsibility in reacting to pleasurable life situations.
7. The obvious fact that she now recognized her own personal values.
8. Her need to review her objectives in life as stated in the original interviews.
9. Her personal attractiveness, not as seen only by herself but as appreciated from the masculine point of view.

She listened attentively and, at the close of the interview, thanked the writer graciously and took her departure.

Several months later a marked copy of the local newspaper was received in the mail containing an announcement of her engagement. About six months later an announcement of her marriage to the young man was received. Then, 15 months later, a letter was received containing a snapshot of her home, the announcement of her son's

birth, and a newspaper clipping announcing her husband's promotion to junior member of the construction firm. Since then no direct word has been received, but she has referred to the writer several patients who speak glowingly of her.

## **DISCUSSION**

Although both of these patients emphasized their dental complaint as the fundamental consideration in their maladjustment, the case histories have been reported without distortion. Instead, an effort has been made to present the general situation of which the dental aspect constituted merely the one item which had been seized upon to represent completely a total problem.

Therapy for both was predicated upon the assumption that there is a strong normal tendency for the personality to adjust if given an opportunity. The simple fact that both patients had centralized their complaints upon one single item of a psychosomatic character, which was alterable if necessary, suggested that prolonged, extensive probing into the experiential life of the patients and elaborate reeducation were not necessarily indicated.

The therapeutic results obtained indicate that an uncomplicated psychotherapeutic approach may be most effective in a circumscribed psychosomatic reaction. Had this method failed with these two patients, there would still have remained the possibility of a more elaborate psychotherapeutic procedure.

## The Identification of a Secure Reality

Milton H. Erickson

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Reality, security, and the definition of boundaries and limitations constitute important considerations in the growth of understanding in childhood. To an eight-year-old child the question of what constitutes power and strength and reality and security can be a serious matter. When one is small, weak, and intelligent, living in an undefined world of intellectual and emotional fluctuations, one seeks to learn what is really strong, secure, and safe.

A 27-year-old mother began to encounter serious difficulty with her Eight-year-old son, who was becoming progressively defiant and seemed to find a new way to defy her each day. The mother had divorced her husband two years previously for adequate reasons recognized by all concerned. In addition to her son she had two daughters, aged nine and six. After some months of occasional dating with men in the hope of marriage, she found her son had become rebellious and an unexpected problem. The older daughter had joined him briefly in this rebelliousness. The mother was able to correct the daughter by her customary measures of discipline through anger, shouting, scolding, threatening, and then an angry spanking followed by an intelligent, reasonable, objective discussion with the child. In the past this had always been effective with the children. However, her son Joe refused to respond to her usual measures, even when she added repeated spankings, deprivations, tears, and the enlistment of her family's assistance. Joe merely stated, quite happily and cheerfully, that he planned to do whatever he pleased and nothing, just nothing, could stop him.

The son's misbehavior spread to the school and to the neighborhood, and literally nothing was safe from his depredations. School property was destroyed, teachers defied, schoolmates assaulted; neighbor's windows were broken and their flower beds destroyed. The neighbors and teachers, endeavoring to take a hand in the matter, succeeded in intimidating the child, but nothing more. Finally the boy began destroying things of value in the home, especially after the mother was asleep at night, and then he would infuriate her by boldfacedly denying guilt the next morning.

This final mischief led the mother to bring the boy in for treatment. As the mother told her story, Joe listened with a broad, triumphant smile. When she had finished, he boastfully declared that the author could not do anything to stop him and he was going to go right on doing as he pleased. The author assured him, gravely and earnestly, that it was unnecessary for him to do anything to change the boy's behavior because he was a good, big, strong boy and very smart, and he would have to change his behavior all by himself. The boy was assured that his mother would do just enough to give him a chance to change his behavior "all by himself." Joe received this statement in an incredulous

sneering manner. Then he was sent out of the office with the statement that his mother would be told some simple little things that she could do so that he himself could change his behavior. He was also earnestly challenged in a most kindly fashion to try to figure out what those simple little things might be. This served to puzzle him into quiet reflective behavior while he awaited his mother.

Alone with the mother, the author discussed a child's demand for a world in which he could be certain that there was someone stronger and more powerful than he. To date her son had demonstrated with increasing desperation that the world was so insecure that the only strong person in it was himself, a little eight-year-old boy. Then the mother was given painstakingly clear instructions for her activities over the next two days.

As they left the office, the boy challengingly asked if the author had recommended spankings. He was assured that no measure would be taken except to give him full opportunity to change his own behavior; no one else would change it. This reply perplexed him, and on the way home his mother administered severe corporal punishment to compel him to let her drive the automobile safely. This misconduct had been anticipated; the mother had been advised to deal with it summarily and without argument. The evening was spent in the usual fashion by letting the boy watch television as he wished.

The following morning the grandparents arrived and picked up the two daughters. Joe, who had plans to go swimming, demanded his breakfast. He was most puzzled when he observed his mother carry into the living room some wrapped sandwiches, fruit, one Thermos bottle of fruit juice and one of coffee, and some towels. She put all these items securely on a heavy couch with the telephone and some books. Joe demanded that she prepare his breakfast without delay, threatening physical destruction of the first thing he could lay his hands on if she did not hurry. His mother merely smiled at him, seized him, threw him quickly to the floor on his stomach, and sat her full weight upon him. When he yelled at her to get off, she replied mildly that she had already eaten breakfast and she had nothing to do except to try to think about ways to change his behavior. However, she pointed out that she was certain she did not know any way; therefore it would all be up to him.

The boy struggled furiously against the odds of his mother's weight, strength, and watchful dexterity. He yelled, screamed, shouted profanity and obscenities, sobbed, and finally promised piteously always to be a good boy. His mother answered that the promise did not mean anything because she had not yet figured out how to change his behavior. This evoked another fit of rage from him, which finally ceased, followed by his urgent plea to go to the bathroom. His mother explained gently that she had not finished her thinking; she offered him a towel to mop up so he would not get too wet. This elicited another wild bit of struggling, which soon exhausted him. His mother took advantage of the quiet to make a telephone call to her mother. While Joe listened, she explained casually that she had not yet reached any conclusion in her thinking and she really believed that any change in behavior would have to come from Joe. Her son greeted this remark with as loud a scream as he could muster. His mother commented into the

telephone that Joe was too busy screaming to think about changing his behavior, and she put the mouthpiece down to Joe's mouth so that he could scream into it.

Joe lapsed into sullen silence, broken by sudden surges of violent effort, screams, demands, and sobbing interrupted by piteous pleas. To all of this his mother gave the same mild, pat answers. As time passed, the mother poured herself coffee, fruit juice, ate sandwiches, and read a book. Shortly before noon the boy politely told her he really did need to go to the bathroom. She confessed a similar need. She explained that it would be possible if he would agree to return, resume his position on the floor, and let her sit down comfortably upon him. After some tears, he consented. He fulfilled his promise, but almost immediately launched into renewed violent activity to dislodge her. Each near success led to further effort, which exhausted him still more. While he rested, she ate fruit and drank coffee, made a casual telephone call, and read a book.

After over five hours Joe surrendered by stating simply and abjectly that he would do anything and everything she told him to do. His mother replied just as simply and earnestly that her thinking had been in vain; she just did not know what to tell him to do. He burst into tears at this, but shortly, sobbing, he told her he knew what to do. She replied mildly that she was very glad of this but she did not think he had had enough time to think long enough about it. Perhaps another hour or so of thinking might help.

Joe silently awaited the passing of an hour while his mother sat reading quietly. When over an hour had passed, she commented on the time but expressed her wish to finish the chapter. Joe sighed shudderingly and sobbed softly to himself while his mother finished her reading.

With the chapter finally finished, the mother got up and so did Joe. He timidly asked for something to eat. His mother explained in laborious detail that it was too late for lunch, that breakfast was always eaten before lunch, and that it was too late to serve breakfast. She suggested instead that he have a drink of ice water and a comfortable rest in bed for the remainder of the afternoon.

Joe fell asleep quickly but awakened to the odors of well-liked foods. His sisters had returned, and he tried to join them at the table for the evening meal. His mother explained—gravely, simply, and in lucid detail—that it was customary first to eat breakfast and then lunch and then dinner. Unfortunately, he had missed his breakfast, therefore he had to miss his lunch. Now he would have to miss his dinner, but fortunately he could begin a new day the next morning. Joe returned to his bedroom and cried himself to sleep. The mother slept lightly that night, but Joe did not arise until she was well along with breakfast preparations.

Joe entered the kitchen with his sisters for breakfast and sat down happily while his mother served his sisters with pancakes and sausages. At Joe's place was a large bowl. His mother explained that she had cooked him an extra—special breakfast of oatmeal, a food not too well liked by him. Tears came to his eyes, but he thanked her for the serving, as was the family custom, and ate voraciously. His mother explained that she had cooked

an extra supply so that he could have a second helping. She also cheerfully expressed the hope that enough would be left over to meet his needs for lunch. Joe ate manfully to prevent that possibility, but his mother had cooked a remarkably large supply.

After breakfast Joe set about cleaning up his room without any instruction. This done, he worked hard picking up the stones he had thrown on the lawn. When he asked his mother if he could call upon the neighbors, she had no idea what this portended but gave permission. From behind the window curtains she watched him while he went next door and rang the bell. When the door opened, he apparently spoke to the neighbor briefly and then went on up the street. As she later learned, just as systematically as he had terrorized the neighborhood, he canvassed it to offer his apologies and to promise that he would come back to make amends as fast as he could. He explained that it would take a considerable period of time for him to undo all the mischief he had done.

Joe returned for lunch, ate buttered, cold, thick sliced oatmeal, helped voluntarily to dry the dishes, and spent the afternoon and evening with his schoolbooks while his sisters watched television. The evening meal was ample but consisted of leftovers, which Joe ate quietly without comment. At bedtime Joe went to bed voluntarily while his sisters awaited their mother's usual insistence.

The next day Joe went to school, where he made his apologies and promises. These were accepted warily. That evening he became involved in a typical childish quarrel with his older sister, who shrieked for her mother. As the mother entered the room, Joe began to tremble visibly. Both children were told to sit down, and the sister was asked to state her case first. When it became his turn to speak, Joe said he agreed with his sister. His mother then explained to Joe that she expected him to be a normal eight-year-old boy and to get into ordinary trouble like all regular eight-year-old boys. Then she pointed out to both of them that their quarrel was lacking in merit and was properly to be abandoned. Both children acquiesced.

### **GAINING MOTHER'S COOPERATION**

The education of Joe's mother to enable her to deal with her son's problem by following out the instructions was a rather difficult task. She was a college graduate, a highly intelligent woman with a background of social and community interests and responsibilities. In the interview she was asked to describe, in as full a way as possible, the damage Joe had done in the school and the community. With this description the damage became painfully enlarged in her mind. (Plants do grow back, broken windowpanes and torn dresses can be replaced, but this comfort was not allowed to be a part of her review.)

Next she was asked to describe Joe "as he used to be"—a reasonably happy, well-behaved, and actually a decidedly brilliant child. She was repeatedly asked to draw these comparisons between his past and present behavior, more briefly each time, but with a greater highlighting of the essential points. Then she was asked to speculate upon the probable future of Joe both "as he used to be" and as was "quite possible" now in the

light of his present behavior. Helpful suggestions were given to aid the mother in drawing sharply contrasting "probable pictures of the future."

After this discussion she was asked to consider in full the possibilities of what she could do over the weekend and the kind of role she ought to assume with Joe. Since she did not know, this placed her completely in a passive position, so the author could offer plans. Her repressed and guilty resentments and hostilities toward her son and his misbehavior were utilized. Every effort was made to redirect them into an anticipation of a satisfying, calculated, deliberate watchfulness in the frustrating of her son's attempts to confirm his sense of insecurity and to prove her ineffectual.

The mother's apparently justified statement that her weight of 150 pounds was much too great to permit putting it fully on the body of an eight-year-old child was a major factor in winning the mother's full cooperation. At first this argument was carefully evaded. The mother was helped systematically to marshal all of her objections to the author's proposed plans behind this apparently indisputable argument that her weight was too great to be endured by a child. As she became more entrenched in this defense, a carefully worded discussion allowed her to wish with increasing desire that she could do the various things the author outlined as he detailed possibilities for the entire weekend.

When the mother seemed to have reached the right degree of emotional readiness, the question of her weight was raised for disposal. She was simply assured that she need not take medical opinion at all but would learn from her son on the morrow that her weight would be inconsequential to him. In fact it would take all of her strength, dexterity, and alertness in addition to her weight to master the situation. She might even lose the contest because of the insufficiency of her weight. (The mother could not analyze the binding significance of this argument so simply presented to her. She was placed in the position of trying to prove that her weight was really too much. To prove this, she would need her son's cooperation, and the author was certain that the boy's aggressive patterns would preclude any passive yielding to his mother's weight. In this way the mother would be taught by the son to disregard her defenses against the author's suggestions, and she would be reinforced in her acceptance of those suggestions by the very violence of his behavior.) As the mother later explained, "The way that bucking bronco threw me around, I knew I would have to settle down to serious business to keep my seat. It just became a question of who was smarter, and I knew I had a real job to do. Then I began to take pleasure in anticipating and meeting his moves. It was almost like a chess game. I certainly learned to admire and respect his determination, and I got an immense satisfaction out of frustrating him as thoroughly as he had frustrated me."

"I had one awfully bad time though. When we came back from the bathroom, and he started to lie down on the floor, he looked at me so pitifully that I wanted to take him in my arms. But I remembered what you said about not accepting surrender because of pity but only when the issue was settled. That's when I knew I had won, so I was awfully careful then to be sure not to let any pity come in. That made the rest of it easy, and I could really understand what I was doing and why."

## **A LATER REINFORCEMENT**

For the next few months, until midsummer, all went well. Then for no apparent reason except an ordinary quarrel with his sister settled unfairly to her advantage, Joe declared quietly but firmly that he did not have "to take that kind of stuff." He said he could "stomp" anybody, particularly the author, and he dared his mother to take him to see the author that very evening. At a loss what to do, his mother brought him to the office immediately. As they entered, she declared somewhat inaccurately that Joe had threatened to "stomp" the author's office. Joe was immediately told, disparagingly, that he probably could not stomp the floor hard enough to make it worthwhile. Irately, Joe raised his foot and brought his cowboy boot down hard upon the carpeted floor. He was told, condescendingly, that his effort was really remarkably good for a little eight-year-old boy and that he probably could repeat it a number of times, but not very many. Joe angrily shouted that he could stomp that hard 50, 100, 1,000 times if he wished. Reply was made that he was only eight years old, and no matter how angry he was he couldn't stomp 1,000 times. In fact he couldn't even stomp hard half that number of times, which would only be 500. If he tried, he would soon get tired, his stomp would get littler and weaker, and he would have to change off to the other leg and rest. Even worse, he was told he couldn't even stand still while he rested without wiggling around and wanting to sit down. If he didn't believe this, he could just go right ahead and stomp. When he got all tired out like a little boy, he could rest by standing still until he discovered that he could not even stand still without wiggling and wanting to sit down. With outraged and furious dignity Joe declared his solemn intention of stomping a hole in the floor even if it took a hundred million stoms.

His mother was dismissed with instructions that she was to return in the "square root of four," which she translated to mean "in two hours." In this way Joe was not informed of the time when she would return, although he recognized that one adult was telling another a specific time. As the office door closed upon his mother, Joe balanced on his right foot and crashed his left foot to the floor. The author assumed a look of astonishment, commenting that the stomp was far better than he had expected of Joe, but he doubted if Joe could keep it up. Certainty was expressed that Joe would soon weaken, and then he would discover he couldn't even stand still. Joe contemptuously stomped a few more times before it became possible to disparage his stomp as becoming weaker.

After intensifying his efforts, Joe reached a count of 30 before he realized that he had greatly overestimated his stomping ability. As this realization became evident in Joe's facial expression, he was patronizingly offered the privilege of just patting the floor 1,000 times with his foot, since he really couldn't stand still and rest without wiggling around and wanting to sit down. With desperate dignity, he rejected the floor-patting and declared his intention of standing still. Promptly he assumed a stiff upright position, with his hands at his sides, facing the author. He was immediately shown the desk clock, and comment was offered about the slowness of the minute hand and the even greater slowness of the hour hand, despite the seeming rapidity of the ticking of the clock. The author turned to his desk, began to make notes in Joe's case record, and from that he turned to other desk tasks.

Within 15 minutes Joe was shifting his weight back and forth from one foot to the other, twisting his neck, wiggling his shoulders. When a half-hour had passed, he was reaching out with his hand, resting some of his weight on the arm of the chair beside which he was standing. However, he quickly withdrew his hand whenever the author seemed about to look up to glance reflectively about the room. After about an hour the author excused himself temporarily from the office. Joe took full advantage of this, and of several repetitions, never quite getting back into his previous position beside the chair.

When his mother knocked at the office door, Joe was told, "When your mother comes in, do exactly as I tell you." She was admitted and seated, looking wonderingly at Joe as he stood rigidly facing the desk. Signaling silence to the mother, the author turned to Joe and peremptorily commanded, "Joe, show your mother how hard you can still stomp on the floor." Joe was startled, but he responded nobly. "Now, Joe, show her how stiff and straight you can stand still." A minute later two more orders were issued, "Mother, this interview between Joe and me is a secret between Joe and me. Joe, don't tell your mother a single thing about what happened in this office. You and I both know, and that's enough. O.K."

Both Joe and his mother nodded their heads. She looked a bit mystified; Joe looked thoughtfully pleased. On the trip home Joe was quiet, sitting quite close beside his mother. About halfway home Joe broke the silence by commenting that the author was a "nice doctor." As the mother later stated, this statement had relieved her puzzled mind in some inexplicable way. She neither asked nor was given any explanation of the office events. She knew only that Joe liked, respected, and trusted the author and was glad to see him occasionally in a social or semisocial fashion. Joe's behavior continued to be that of a normal, highly intelligent boy who now and then misbehaved in an expected and warrantable fashion.

Two years passed, and Joe's mother became engaged. Joe liked the prospective stepfather but asked his mother one demanding question—did the author approve of the man? Assured the author did approve, there was then unquestioning acceptance.

## **COMMENT**

In the process of living the price of survival is eternal vigilance and the willingness to learn. The sooner one becomes aware of realities and the sooner one adjusts to them, the quicker is the process of adjustment and the happier the experience of living. When one knows the boundaries, restrictions, and limitations that govern, then one is free to utilize satisfactorily whatever is available. But in an undefined world, where intellectual and emotional fluctuations create an enveloping state of uncertainty that varies from one mood and one moment to the next, there can be no certainty or security. Joe sought to learn what was really strong, secure, and safe, and he learned it in the effective way one learns not to kick a stone with the bare foot or to slap a cactus with the bare hands. There are relative values of effort and purposes and rewards, and Joe was given an opportunity to strive, think, assess, compare, appraise, contrast, and to choose. Thereby he could learn and hence could adjust.

Joe is not the only patient on whom this type of therapy has been employed. Over the years there have been a number of comparable instances, some almost identical. In some of these cases the author's practice of keeping in contact with patients over the years has yielded information repeatedly affirming the value of reality confrontation as a successful measure for defining a secure reality.

# The Hypnotic Corrective Emotional Experience

Milton H. Erickson

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An unintentional, completely hypnotic, Corrective Emotional Experience occurred under unusual circumstances at a medical meeting where the author had been asked to present a general lecture on hypnosis without a demonstration. In attendance there was a group of seven physicians, among them psychoanalytically trained psychiatrists, who sat together in the rear to one side of the auditorium. They had previously spoken most adversely about hypnosis and had opposed inviting the author to address the group. Scattered in the audience were a number of other physicians who were also unreceptive of hypnosis, a fact of which the official host for the meeting had informed the author. During the question-and-answer period numerous requests were made that a demonstration of hypnosis be given. Since it was obvious that the vast majority of those present were decidedly in favor of a demonstration, volunteers were called for—but there were none. The author asked if the audience would be agreeable to his choosing at random someone in the audience, and a most favorable response was received. Thereupon a physician was singled out and invited to the speaker's platform. After a moment's hesitation he rose and strode up briskly. As he was doing this, the author's host frowningly shook his head negatively and held up his hand in the "thumbs down" position to indicate that a bad choice had been made. But the author saw no immediate solution to the problem.

(Two explanatory paragraphs will be inserted here so that the reader may better understand the unexpected course of events. After the meeting the author was apprised that his subject was a rather unusual and even somewhat eccentric character. He had never married, and had two interests—his medical practice and his studies. He was a man of high intelligence and integrity, and he was well-respected. He had intensely strong, even extreme likes and dislikes, and he was not hesitant about making them freely and bluntly known. For years he had been bitterly resentful toward psychiatry, and the author's random choice of him as a subject caused considerable apprehensiveness in the audience.

As for his "studies," he was always engaged upon some new course of intensive study which was invariably detailed, comprehensive, and systematic, and which he always completed. Usually with the advent of any new or striking development in medicine, he embarked upon an intensive course of study for months at a time, yet devoted himself untiringly to his extensive general practice in a large rural community. Because he was extremely well informed, he was frequently consulted by physicians in other fields—except psychiatry, toward which he manifested a well-verbalized, violent dislike. Also he often freely exhibited unreasonable antagonism toward psychiatrists in general. Even his presence at the lecture had distressed a number of people, who anticipated a disagreeable

outburst from him. The author's chance selection of him as a subject caused those in charge of the meeting serious alarm, but they could think of nothing to do to avert the expected catastrophe.)

As the man approached the author at the podium, he was asked for his name. His reply was simply the rather brusque question, "Is it really necessary for you to know my name to demonstrate hypnosis?"

He was answered with the statement, "Not at all; just seat yourself comfortably in that armchair while I make a few remarks to the audience." After a momentary pause he moved the chair so that he would face the author and present his profile to the audience; then he sat down. Addressing the audience, the author reminded them of his comments earlier on ideomotor responses, their involuntary character, and the frequent development of a sense of physical dissociation. Peripheral vision disclosed the subject to be listening with utter intensity. The author continued with an explanation that a voluntary motor response, once initiated, could be converted easily into an involuntary continued response. "For example," it was stated, "if I take this physician's wrist and extend it at shoulder level in front of him [suiting action to the words], and then gently, with my right hand, place his hand in a position of dorsiflexion [again suiting action to the words], and ask him to fixate his gaze intently on his thumbnail, and begin the action of moving his hand slowly toward his face [doing so], his elbow will bend gently more and more, and the movement soon becomes involuntary [releasing the hold upon the wrist with a wavering, uncertain, altering, and constantly decreasing pressure of first one finger and then another until, unnoticeably, contact with his wrist ceased, a technique described in a previous article (Erickson, 1964)], and there results an unexpected catalepsy and the rather rapid development of a deep trance state."

It was at once apparent that exactly what the author had just described was occurring, since this procedure is an indirect, unchallengeable technique seemingly addressed to others, but which puts the subject in the position of listening and trying to understand and thus becoming responsive by virtue of the very effort of trying to understand, thereby to be enabled to challenge the operator. But most astonishingly, as the subject's hand slowly approached his face, he slowly twisted his body and tilted it forward until he seemed to be in a position to look directly at the group of hostile physicians in the far corner of the room. As his hand came close to his face, there was a slow spreading of the digits, the development of a slightly amused, sardonic expression on his face, and his hand came to rest in the nose-thumbing position. At a total loss to understand this behavior, the author simply watched him for at least three minutes. The man was obviously cataleptic, his blink and swallowing reflexes were absent and no startle response was manifested when the author surreptitiously pushed a heavy pointer off the table to fall noisily on the floor. The audience, however, showed an over-reactive startle response to this disturbance, but the author merely attributed this to the unusualness and rigidity of the subject's behavior they were witnessing.

At a loss to understand the situation, the author addressed the subject and instructed him to lean comfortably back in his chair, to let his hand slowly lower until it rested

comfortably in his lap, to understand fully that henceforth, whenever he wished, he could go into a profound somnambulistic trance, and to take three deep breaths slowly and then to awaken with an amnesia for having been in a trance.

The subject responded as instructed, but immediately upon awakening, he said most earnestly, "Dr. Erickson, I owe you an apology. I came up here for only one reason, to prove that hypnosis is a fraud, a miserable hoax. That's why I didn't tell you my name. It's W——, but all my friends call me Jim, so just call me Jim. Then, when you asked me to sit down on the chair, I began to do some fast thinking, I went into high speed and I realized that all the things you said here tonight made complete sense. The trouble is, I've been too busy listening to a bunch of blowhards [nodding his head toward the far corner of the room] that I didn't like anyway and actually believing what they said about hypnosis, when all the time they were just showing off their ignorance. I'm a very intolerant man when it comes to somebody shooting off his mouth about something he doesn't know a thing about, and should keep his mouth shut and his mind open. And when I sat down in this chair, I realized that I was doing the same thing toward them [again nodding his head toward the far corner of the room] that they were doing toward you, and I was joining them. But I didn't come up here to tell you this, I just want you to know I'm sorry for being rude. And now I'm ready to learn everything you can teach me. What stuns me is how fast what you said tonight has sunk in. And next I'm going to apologize to those fellows [nodding his head indicatively a third time] for being so close-minded and learn from them everything they can teach me. And Mister, I sure mean that—you don't know what I'm talking about but everybody else here probably does. Now with that off my chest,  
I'm pleased to be your subject, you can be sure I'll try to cooperate."

The author made no effort to understand this explanation but simply asked him if there were any special technique he would like used. He answered, "Mister, I don't know a thing about techniques, so use some technique where I can sort of look in and see what's happening."

"In what field of medicine do you practice?"

"Well, I do a lot of general medicine, but I do a lot of anesthesia for my colleagues, so that would be interesting."

"Local or general?"

"Oh, you mean me—that is, what kind of anesthesia? Well, it would have to be local if I get to look in on it in me."

During those questions and answers the author's study of the patient disclosed him to be in a somnambulistic trance. Turning to the audience, the author stated that the situation they had just witnessed was marked by an actual continuation of the somnambulistic state, despite the subject's apparent state of waking awareness; that the subject's interest in hypnosis was obviously so great that his desires would literally become self-

suggestions, and that the author would play only a minor part in the subject's development of hypnotic phenomena. In fact, the specific request for anesthesia would become manifest in accord with previously observed behavior, and suggestions would not be necessary. As this was said, the author took advantage of his standing position, which shielded his right arm, and as he said the words, "It will be here," the author drew attention to his right arm by moving it. Neither the audience nor the subject grasped the meaning implied, and the subject said, "I don't follow you at all." He was told, "It's all right, you will."

The subject answered, "I still don't get it, but something is happening to me. Look, Mister, I mean Dr. Erickson, that's just a speech habit of mine, especially when I'm excited, but look Mister, there I go again, but my whole right arm is numb. In fact, I can't even feel it being there. I can see it hanging there, but I can't move it, and look, I can't even feel this [pinching the back of his right arm vigorously]. Now you haven't hypnotized me, how come I've got an anesthesia of the arm? I don't understand this." The author gave the following explanation, apparently addressed to him but which was actually intended to inform the audience. "A few minutes ago the audience watched right arm behavior. You wished to have a local anesthesia. The previous arm behavior [the ideomotor activity] set up a pattern or focus for further hypnotic behavior. There was really no awakening from that trance by you, only the continuance of a profound somnambulistic trance, which often occurs in highly intelligent, vitally interested subjects. As can be noted, your blink reflex has been continuously absent as has been the swallowing reflex. Additionally, despite the fact I am addressing the audience, your behavior is entirely in response to me without a single glance in the direction of the audience, since you [a nod of the head similar to that the subject made previously] are out of rapport with them. Hence, there isn't any turning toward or attention directed to the audience as I speak, which would be so natural in the waking state. You are looking to me only for a resolution of the obvious confusion expressed by your face."

The subject spoke, "Mister, I just don't get you at all. I just don't know what you are talking about. What I'm interested in is this arm anesthesia. I've got an old lady with cancer, and this anesthesia I've got in my arm is the thing she needs for her pain. Oh, Ruth, Ruth." Previous comparable experience allowed the author to recognize immediately what had happened; the subject was promptly asked for the benefit of the audience, "By the way, where are we?" The reply startled the audience, "Oh, didn't I tell you? This is my office, and the girl will bring in the record on the old lady with the cancer."

A few questions clarified for the audience that in the subject's intense interest in hypnosis and in his earnest desire to seek information, he had spontaneously reoriented himself to his office, his favorite place to study.

By intruding upon the subject's wishes, the author was enabled to have him demonstrate all of the various phenomena of deep somnambulism to the satisfaction of the severest critic in the audience. Nobody questioned the validity of the hypnotic responses.

At the conclusion of the demonstration the subject was dismissed with the statement that he could now awaken from the trance, that he could remember any and all of his trance experiences if he so wished, that he could develop a trance state whenever he wished, and that he could now return to his seat in the audience. He aroused, started to leave the stage, paused, turned excitedly, and declared, "Listen! You've had me hypnotized. I'm remembering a lot of things. I didn't know you did that! That anesthesia was certainly real. And I am interested! I do have an old lady with cancer. Maybe I can do something for her besides narcotizing her."

As a final demonstration the author asked, with special intonation, "And you can develop a complete amnesia for everything, can you not?" His response was an immediate development of a trance, whereupon the author in a casual tone of voice said, "Fine, thank you very much, that's all except that Louis [the author's host] might want to ask you if you can go into a trance."

The subject aroused immediately, whereupon Louis asked him, "Jim, do you really think you could go into a trance?"

The answer was, "Well, this afternoon I was completely certain that hypnosis was a lot of hocus pocus, but after the lecture tonight and the thinking I've done, I'm completely certain it's psychosomatic interrelationships that are definitely applicable in various medical conditions, and I can promise you that I'm going to make a sufficiently intensive study so that I can convince those fellows back there" —nodding his head toward the hostile group. "But first I want Dr. Erickson to induce a trance in me and let me experience some hypnosis, and then, Mister, I'm going to get every book on hypnosis that Dr. Erickson recommends, some good books on psychology that Joe [indicating a member of the audience] can recommend. And [smiling broadly] I'll have those fellows back there recommend some books on psychiatry and psychosomatics and I'll get out my anatomy and neurology texts, and Mister, I'm going to have me a time, and when I finish, I'll know something about hypnosis, and then I'm going to see how hypnosis fits into medicine the way it should be practiced."

Upon leaving the stage, Jim strode to the back of the room and shook hands cordially with each of the special group. In the general discussion that followed Jim discovered that he could recall all of the events of the trance and forget them practically at will. This intrigued him as greatly as it did the audience.

In the time that has elapsed since then, well over a year, Jim has followed his plan of study, and now uses hypnosis extensively in his general practice. Of remarkable note was the fact that Jim's long-continued resentment toward psychiatrists and psychiatry, so much in evidence for years, vanished that evening in the hypnotic state. Warm professional friendships and a new view of a medical specialty resulted from that apparently unintentionally developed Corrective Emotional Experience in the hypnotic state.

## **DISCUSSION**

The foregoing account is an excellent example of a Corrective Emotional Experience hypnotically induced. The situation in its setting and nature made it easy to describe and explain. It demonstrates additionally the unimportance of the therapist's complete awareness of everything without being necessarily handicapped in directing or aiding the patient's progress. It clearly illustrates the need and the value of actual behavior in enabling a patient to make therapeutic progress. Also of importance was the author's unconcerned acceptance of the patient's behavior and his utilization of the total setting and the patient's behavior as measures of indirectly suggesting an interweaving and an integration of the forces governing the patient. Addressing remarks to the audience and to the patient—actually separately, though simultaneously, by having the choice of words convey one meaning to the patient and another to the audience—is always a most effective means of promoting therapy. In his many lectures before the professional public the author has many times deliberately undertaken therapy for patients not seen previously, but who "volunteered" as "demonstration subjects." In the guise of suggestions leading to the demonstration of hypnotic phenomena, therapeutic suggestions can be indirectly given without the audience becoming aware of the pertinences to the subject. Subsequent inquiries have disclosed that many corrective emotional experiences on the lecture platform have been of sustained value. Often, too, the author has found out that the "volunteering" as a "demonstration subject" is a trial by the patient, to test for himself his readiness to accept therapy with subsequent good results.

For example, a woman who was a lifetime enuretic "volunteered" as a demonstration subject. Just previous to the demonstration she had been asked in the waking state if there were anything she wished the author to do. She stated that a physician friend of hers in the audience was particularly interested in enuresis in small children, and as the author turned to the audience, a physician nodded his head affirmatively. Nevertheless, the author, being a psychiatrist, wondered if there might be a more personal application to the requester. With subtle but strong emphasis, he asked the woman, "*Do you mind if I discuss this matter helpfully with you here on the platform?*" She answered agreeably, but a slow flush covered her face, not deeply enough to be apparent to the audience.

Juvenile enuresis was discussed at length with various careful emphases while the woman went into a trance, and she was then used as a demonstration subject immediately after the discussion of enuresis.

Two years later, while lecturing there again, the same woman was noted to be present. She was sought out and taken aside and asked if she wished to volunteer again. She replied simply, "No, not really. I don't need to now." The implication of this last statement suddenly became apparent to her. She flushed deeply and hesitantly said, "You knew, didn't you?"

"Yes, but tell me, please, what happened."

"As you discussed it, I knew that you were talking to me as well as the audience, and I sat in frozen horror because I knew one little slip of your tongue would expose me to the

audience. It was horrible. I guess I went into a trance to escape. Then when you finished discussing it, you explained a posthypnotic suggestion in which you told a patient that it was over with and done with, and belonged to the past, and to go on to other and pleasing things. I knew you were saying that to me; and my horror and terror disappeared, and I felt so happy and relieved and comfortable. Then you began demonstrating things, but I just felt like I was in heaven. And that was the end of it—that horrible terror, that sudden feeling of peace and comfort, and the end of my problem. I don't understand. I don't want to understand. I'm just happy. Many, many thanks to you."

Many other instances of a Corrective Emotional Experience could be cited, since the author utilizes it in psychotherapy extensively. Why and how it serves the individual's needs is usually difficult to understand. Sometimes it is used without employing hypnosis, but this is more difficult. Hypnosis allows freedom and ease in structuring the therapeutic situation and renders the patient much more accessible. Also, hypnosis allows ready retreat if the patient is not yet ready, without there being any loss of therapeutic gains already made. One can easily and safely reinterpret a structured Corrective Emotional Experience for which the patient is not yet ready, and thus leave the way open for a future approach. The Corrective Emotional Experiences vary in relation to the individual and in relation to his problem. The essential task is to structure the therapeutic situation in such fashion that emotions are greatly intensified, all behavior inhibited, and the need for behavior intensified. Then, and not until then, an opportunity for directed behavior with a special significance is given.

In the case of the physician reported above, the author was aware of a difficult situation from the "thumbs-down" signal, and was then made more acutely aware of it by the challenge in the refusal by the volunteer to give his name.

If the readers will review the handling of this situation, they will note an immediate inhibition of the physician by instrumentalizing him as a display object for the audience, the initiation of passive directed behavior, the careful shifting of the intense emotional state that the man already had into an intense emotional interest in his own subjective experience, which he himself augmented by his intense emotional interest in his cancer patient. This was followed by a redirection of his interests toward his colleague Louis, which, perhaps unnecessarily, intensified his behavior in relation to his other colleagues. Thus, a very marked reorientation of this physician in his life situation and his total life adjustment was effected by simple little items of behavior which he progressively enlarged into a revision of his emotional and intellectual attitudes.

As for the enuretic woman, she became hopelessly trapped by the author's clinical attentiveness, and rapidly led in a terrifying, bewildering, threatening sea of emotions, inhibited in all of her behavior and helpless until suddenly she was propelled into doing *the things the author wanted her to do*, and doing these things well and competently. This created a feeling and an attitude which she carried over into the field of her enuresis problem, where, without explicitly so declaring, she wanted the author's aid to tell her to do well and competently the things that she knew the author would tell her to

do. Thus, a long-continuing pattern of behavior was set into action, tremendously reinforced by the woman's own emotional history.

In brief, the Hypnotic Corrective Emotional Experience, however simple it may appear, is a highly complex restructuring of subjective understandings of one's subjective experiences that can be initiated very simply and then gently guided toward a therapeutic goal. Essential is good clinical attentiveness to the patient's behavior, a confident awareness that one can delay, even halt, and nullify hypnotically whatever is taking place, and postpone, modify, or reinforce the structured situation leading to a therapeutic goal. More than once this author has found himself in the need of arresting the patient's behavior hypnotically in some distracting, harmless manner while he carefully revised his own understandings, thus to meet better the patient's needs.

What happens if a hoped-for Corrective Emotional Experience gets out of hand and becomes uncontrolled? Merely a disagreeable experience for the patient and properly increased awareness by the therapist of the problem at hand, with a need to repair rapport lest the patient seek help elsewhere. Even at the worst, the patient may be benefited by the debacle which serves to render the patient more aware of his needs. More than once this author has deliberately structured a Corrective Emotional Experience wrongly and watched the patient react unfavorably; and then, with carefully mended rapport, he began again, aided by the patient's unexpected unconscious wisdom in restructuring the corrective Emotional Experience. As for actual harm this can be best summarized by comments from patients, of which the following is an excellent example: Things really went all wrong there for a while, and that shook me awfully. I didn't think I could ever get straightened out, but then things would begin to slide together so smoothly, and I would begin to think that being so badly shook just kind of speeded things up."

In conclusion, the Hypnotic Corrective Emotional Experience is a relatively easy and effective psychotherapeutic measure in the hands of an attentive clinician. It is, as is illustrated in the instances cited, best "played by ear" with no elaborate plans formulated, but with a multitude of possibilities floating freely in one's mind ready for adaptation to each new development presented by the patient. It is easily arrested and nullified if not properly structured, and at the worst can only lead the patient to seek a more competent therapist. Used with care and discrimination, the Hypnotic Corrective Emotional Experience is of great value in shortening psychotherapy and in bringing about a therapeutic reordering of the patient's adjustments to his life situation.

# **PSYCHOLOGICAL SIGNIFICANCE OF PHYSICAL RESTRAINT TO MENTAL PATIENTS**

Milton H. Erickson, M. D.

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Ever since chains and manacles were removed from the mentally ill, the general tendency of both the lay and the professional public is to regard any form of restraint employed upon the mentally ill patient as an undesirable, abhorrent, deplorable, punitive practice. Unwilling, grudging recognition is given to the fact that restraint is necessarily an integral part of the care of the institutionalized mental patient, since even the fact of hospitalization itself is a form of physical restraint. All too often there is a mistaken, unintentional disregard of the patient's own needs for protection from the self and from others, and a maintenance of false standards in the hospital by which the patient's welfare is really disregarded in favor of uncritical, uninformed public approval.

Rationalizations and justifications of restraint are offered in apologetic declarations, often true, that restraint is frequently necessary for the protection of both patients and others. Every effort is made to reduce the amount of restraint necessary and to seek for types of restraint that are less obvious, more concealed, and not so striking and so offensive to the eye of the observer, and the general policy of most mental hospitals is to decry the use of restraint as a shameful punitive practice.

Little is to be found in the literature concerning the meaningfulness and the significance of restraint to the individual patient. That which can be found is usually expressive of the generally accepted attitude of the wrongfulness of restraint. The problem of how the patient in restraint feels about it, what purposes restraint serves the individual patient, and the personality needs affected by the restraint are all disregarded in the general condemnation of restraint.

However, before reporting upon observations of the meaningfulness of restraint to mentally ill patients, certain items of common knowledge and experience will be cited as a measure of orientation. These will be mentioned briefly, and without much elaboration since they are self-explanatory.

First of all, there is the example of the frightened, hurt, sick, anxious, insecure baby or small child who desperately wants and needs to be held tightly in the confining safety of his mother's arms, and the more tightly he is held, the safer he feels.

Then there is the nervous passenger on the airplane whose sole comfort and security on a long trip is the carefully tightened safety belt.

Consider the soldier assigned to overseas duty bidding his wife farewell, both of them wanting and needing to embrace with a painfully tight embrace, to quote, "Hold me so tight I can't even move."

There is also the soldier under fire who wants the shelter of a foxhole, not a big, roomy, comfortable foxhole, but one that is just barely large enough to crowd into so that he can feel the comforting restraint of the solid, unyielding earth.

In bomb shelters a frequent request was, "Hang on to me, don't let me make a move." Frightened, terrified, distressed people need to huddle and crowd together in order to get the comfort of a form of physical restraint that paradoxically gives them a feeling of security.

Then there is another type of analogous behavior expressive of deep underlying fundamental needs in regard to spatial relationships. It is the need of little children to get into and to crawl through small apertures. They squeeze between chairs rather than walk around them. The closer the bed is to the floor, the more important it becomes to crawl under it. The drainage pipe, the keg or barrel on the way to school are the delight of the child and the bane of parents and police.

Mention is made of these items since they illustrate so clearly that any comprehensive view of physical restraint must encompass normal needs and desires as well as normal abhorrence of restraint. Ordinarily restraint is looked upon as an administrative problem that reflects to the discredit of the authorities, as something to be avoided and minimized, with no real consideration given to the actual significance of restraint for the individual patient. During 20 years of experience, there has been ample opportunity to discover that physical restraint should properly be viewed as a specific experience of great meaningfulness to the individual patient.

No attempt will be made to offer a statistical study for the reason that physical restraint is often a matter of good administration and housekeeping, as well as a matter of psychological experience of great importance to the individual patient.

In following the clinical course of patients from the time of admission to the time of discharge there has been an opportunity to discover how patients not only reacted to restraint but what it meant to them as persons. In order to clarify this problem, various individual case histories will be cited and those given will be selected on the basis of their representativeness of how patients actually do respond to restraint.

There was Pauline, whose clinical course was marked by recurrent disturbed episodes of 2 to 3 weeks duration, during which she was combative and complete physical restraint seemed to be the only measure possible to control her.

Observation disclosed that each such episode was prefaced by act hour or two of anxious fearful behavior during which she would huddle in corners, crowd between a bed and the wall, or hide between the mattress and the bed springs until she lost control of herself. Experimentation disclosed that whenever Pauline

manifested this type of behavior, her disturbed episode could be aborted by forcibly placing her in a tight wet pack against which she would struggle violently for a few minutes and then lapse into a restful sleep and an hour later she could be released without fear of disturbed behavior.

Sarah and Harold were two disturbed manic patients; their proud boast was that it required at least six attendants to put them in restraint, and they would rage furiously throughout the time they were in restraint. Both explained inadequately their need to fight something and an agreement was reached with them that they could have any form of restraint any time they wanted it and for as long a time as they felt they needed it, this agreement being reached before their disturbed behavior began. Both patients tested the physician's sincerity and when they discovered that they could rely implicitly upon him the restraint problem was greatly minimized. Thus Sarah, quiet, orderly, well behaved, at 9 o'clock would state, "At 11 o'clock, put me in full restraint, let me fight it out until 2 o'clock, then you can release me. Never mind what I say before 2 o'clock."

Harold would declare, "You better keep me in restraint today until the medical students arrive, and when they get here, let me out for about 2 hours. I can take that much time but don't try to stretch the time."

It became possible with these 2 patients as well as others to arrange to put them in restraint for an agreed-upon period of time, sometimes as little as 5 minutes and render unnecessary further restraint for even several days.

Jimmy and Frank were both graduates in psychology and both had clinical histories of catatonic stupors of months in duration. Both explained that something would happen within them that they could not control except "by freezing up and then it takes so long to unfreeze. Can't you do something to freeze me and then you can unfreeze me and I won't be in a stupor so long." Their wishes were met by the expedient of full rigid restraint, and instead of a stupor of many weeks' or months' duration, restraint of a few days against which they fought and struggled incessantly met their needs.

Albert, Jack, and Johnny had ground privileges but periodically became disturbed and violent and had to be returned to the closed ward for weeks or months at a time. Experimentation disclosed that they all became aware of impending disturbed states and that these could be abbreviated by placing them in seclusion rooms and letting them give vent in an uncontrolled fashion to their inner distresses for an hour or even a day and then they could be returned to ground privileges.

Teresa was a quiet, orderly patient who periodically developed prolonged periods of violently aggressive behavior. Systematic inquiry disclosed that "external unknown mystical forces" seized upon her and forced her to do things against her will. Experimentation disclosed that a belt and wristlets constituted a perfect

defense against those unknown forces and by keeping the wristlets loose she was at liberty to free her hands at any time or to place them back in the wristlets in full accord with her personality needs. She wore the belt and wristlets for many months as a form of magical armament against uncontrollable hostile forces.

Eddie and Gerald were 2 chronic patients who periodically enjoyed ground privileges or were on the closed ward because of disturbed behavior, sometimes lasting 3 or 4 months at a time. Experimentation disclosed that heavy sedation from 24 to 72 hours followed by 1 or 2 days' seclusion with or without physical restraint would actually abort their disturbed periods.

Marie, who suffered from an agitated depression, would plead piteously not to be placed in restraints. This type of pleading always occurred when she became tremendously distressed by suicidal compulsions, and it was her way of so informing the ward physician. Only one type of restraint was suitable, namely, belt and wristlets, and once placed in restraint she would struggle and quarrel with the restraints as a measure of keeping compulsive suicidal ideas out of her mind. When well along in her convalescence she would now and then beg frantically for restraints, and, upon the granting of her request, would scold and struggle furiously against the restraints. Subsequently, she would explain how necessary it had been to her, as a person, to be in restraint and thus to free herself of compulsive self-destructive ideation.

Gertrude was a violently disturbed paranoid schizophrenic, who required full restraint because of her combativeness. However, it was discovered that she looked upon restraint as proof of her divinity, and that she utilized violence as a means of insuring the presence of such proof. Accordingly, arrangements were made with her to have whatever restraint was necessary to satisfy her personal beliefs, with the result that her violence disappeared.

These are but a few of the many cases that could be cited. They all serve to illustrate the importance of looking upon restraint from the patient's point of view and not from the normal person's point of view of abhorrence. It is true that patients do not like physical restraint, but it is also true that human nature tends to regard a repugnant remedy as effective. The disturbed patient needs something more concrete to fight than unknown unrealized personality conflicts. The symptomatic needs of the patient are tremendously important and adequate respect should be paid them. Physical restraint should not be purely an administrative problem, nor just a matter of good housekeeping, nor ever an item of punishment as it so often is. Instead, it should be viewed as a symptomatic measure intended to meet a patient's needs. Everyone recognizes that a patient's aggressive tendencies can often be met by letting them drive nails or tear rags in the O. T. shop. The same holds true with restraint. Experimentation has disclosed that patients ordinarily kept in restraint can have their distorted psychotic needs met with a reality that they can actually fight, resent, and discard with an actual sense of personal achievement. Often full restraint for as brief a period as 10 minutes will serve to enable a patient, who otherwise would require 24-hour restraint, to make a good ward adjustment throughout

the day. The employment of restraint as an immediate therapeutic procedure instead of as a punitive last-resort measure would serve greatly to better both the patient's and the general public's attitude toward restraint.

This is not a plea for more restraint. Rather, it is a plea that, when used, restraint should be employed with the full realization that it can be made a therapeutic experience for the patient.

## **Book Review**

Milton H. Erickson

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### **Hypnotherapy: A Survey of the Literature**

By Margaret Brenman and Merton M. Gill. New York: International University Press, 1947.

A monograph, entitled "Hypnotherapy," published in 1944, four case studies published from the Menninger Clinic during the years Of 1943-46, and a University of Kansas doctoral thesis submitted in 1942 by the senior author constitute the contents of this book.

The monograph section accounts for 117 pages of the 253 pages of text, and, except for a new format and one new footnote on page 87, there have been no revisions of the 1944 issue.

It has a bibliography of 295 titles, chosen from over 1200 references. The selection, the authors state, was made on the basis of availability as well as pertinence. Hence, not too critical a selection was made. For example, there are three listings of the discredited works of a well-known charlatan. The initial work of the clinically untrained and inexperienced amateur is given the same importance as that of well-trained, well-experienced clinicians. Some references are no more than arm chair productions, based not on actual knowledge of or experience with hypnotherapy, sometimes not even with hypnosis in general, but on theoretical assumptions and even misconceptions. Other references, in themselves good publications, make only casual mention of hypnosis. Additionally, the references are divided into chapter bibliographies with many duplications, reducing the actual total given. The placing of an asterisk before those titles considered by the authors to be the more outstanding representative contributions, and the addition of a supplementary list of the many studies in hypnotherapy published since 1944 would have been an excellent service.

The first chapter (12 pages), "The Historical Development of Hypnotherapy," considering its brevity, is fair, although somewhat marred by interwoven accounts of incidental controversies and a seeming over-defensiveness of psychoanalysis. Also, even though the authors later emphasize that hypnoanalysis holds the greater promise for a shortened method of psychotherapy, no mention is made in this chapter of the experimental and clinical hypnotic work constituting the direct foundations of hypnoanalysis.

Chapter II, "Methods of Inducing and Terminating Hypnosis," is mistitled since it is only concerned with the methods of induction. Even then, they "restrict this discussion ... to a

presentation of classic, standard techniques in current use." These "classic standard techniques," as opposed to "unorthodox techniques," are discussed under the headings of "sleeping methods," "drug hypnosis," "hypnoidization" and "waking hypnosis." In essence these techniques are but a formalization of age-old ritualistic and mystical prestige-evoking procedures that date back to times previous to the recognition of the psychodynamics of human behavior.

Furthermore, there is no real recognition that, in hypnotherapy, a trance induction is one order of experience and that the trance state itself is another; that the latter is an end result of special processes of learning and experiencing on the part of the subject; that whether traditional rituals or methods leading to a dynamic participation by the subject in inducing a trance are used, is relatively insignificant since the goal is the development of a dynamic hypnotherapeutic situation. Emphasis is placed upon what the hypnotist does with no real consideration of what the subject does, which, after all, is the really important thing. Neither is there recognition of the need to discuss, in a book on hypnotherapy, instead of induction techniques for hypnosis in general, the actual problems encountered in attempting the therapeutic use of hypnosis.

Chapter III, "Susceptibility to Hypnosis," belongs preferably in a general text on hypnosis. Instead of discussing the methods, conditions and situations favorable to hypnotherapy, general questions about the hypnotizability of people are discussed. Even then, too much emphasis is placed upon certain aspects of the personality, special responses, and specific traits, and no direct discussion is offered of the much more important problems of interpersonal and intrapersonal relationships, and personality needs and purposes with which the patient confronts the therapist.

In the chapter, "Therapeutic Implications," pages 51-90, a summary is offered of six methods with a statement of advantages, limitations, and the types of cases treated by each. These are listed as:

1. Prolonged hypnosis without direct suggestion or exploration.
2. Direct suggestion of symptom-disappearance.
3. Direct suggestion of disappearance of attitudes underlying symptoms.
4. Abreaction of traumatic experience.
5. The use of specialized hypnotic techniques.
6. Hypoanalysis.

Actually the first three methods are identical if consideration is given to the patient and his behavior instead of limiting consideration to what the hypnotist does and says. In psychotherapy of any kind, the therapy derives from the work the patient does. This, the authors emphasize. Yet, in their evaluation of the "methods," they overlook this most significant fact. For example, in the typical cases cited in pages 37 to 48, the coming of the patient for treatment dynamically implied that he came to have his illness cured, even if nothing were mentioned about the dynamics involved. To be cured meant the correction of the symptom, underlying attitudes, misunderstandings and all things pertaining to that illness. To hypnotize the patient, with the direct understanding that the

hypnosis is therapeutic, is direct suggestion even if not verbalized. To suggest directly by word, deed, or attitude that a pain will be removed constitutes a direct suggestion that the sufferer, relieved, will, as he must, take a new attitude toward himself and evolve a significant alteration of his behavior. It is from these dynamics of the patient's understandings that the therapy derives. Yet, the authors describe these three methods in terms of what the therapist says. The intensely dynamic total situation is disregarded. By way of an analogy, silently to hand a sobbing child a piece of candy and to elicit pleased and happy behavior constitutes direct and indirect suggestion, leads the child to intrapsychic exploration, an alteration of behavior, symptom disappearance, change of intrapersonal and interpersonal relationships, reorganization of attitudes underlying symptoms and the development of new patterns of behavior.

The next two methods are similarly inadequately reviewed, although there is better appreciation by the authors that the patient does work. Their chief error is the assumption that abreaction, projection, repression, or dissociation can be used separately and in pure form or out of relation to all the other forms of dynamic behavior constituting the total psychotherapeutic situation. The patient abreacting is also necessarily doing many other things, even if they are not named or even not known. Greater attention to this would have enabled the authors to offer a more instructive appraisal of these "two" methods.

Hypnoanalysis is appraised as the potentially most promising method for shorter psychotherapy. As described by the authors, it is essentially a combination of the fourth and fifth methods to which have been added psychoanalytic techniques with the therapy conducted preferably by psychoanalysts. Actually, of course, there is no reason why procedures four and five cannot be utilized in combination with psychoanalytic techniques and insights by anyone competent and qualified to do psychotherapy. Nor should hypnotherapeutic techniques be termed "unorthodox" because they are psychodynamically oriented and not restricted by tradition or such ritualistic procedures as eye fixation and hand clasping described earlier in the book.

To summarize, approximately 30 of the 40 pages of this chapter are devoted to a running commentary upon 135 references. Quotations, approximating 8 pages, are cited from 16 references. To appraise these, consideration is given to the actual date of the work or the original publication and not to the date of translation or republication. In all, 4 of the quotations date from 1895, 1 from 1909, 6 from between 1920 and 1927, and the remaining 5 are respectively 1935, 1938, 1941, 1943, and 1944. Of these last 5, they are in order an autobiography, 2 textbooks on psychotherapy, the authors' paper included in full later in this book, and the other is a text on hypnotherapy. In content, the quotations are largely generalities, speculations, or symptom description. At best they constitute a general background for a preliminary discussion of hypnotherapy.

In brief, had the authors made this chapter an account of the progressive recognition and utilization, from Mesmer's time to the present, of the psychodynamics of human behavior in the therapeutic situation, they could readily have achieved a most instructive exposition of the development of hypnotherapy.

The chapter closes with two pages of discussion on *supposed dangers of hypnotherapy*. This reviewer agrees with the authors completely that the dangers are suppositional only, and that, when deleterious conditions arise, they spring from incidental things and not from the hypnosis. However, a curious question arises in this connection. In a previous publication the senior author emphasized the realness of the dangers of hypnosis, but makes no mention of that publication in this connection where it would be most pertinent, since hypnotherapy is hypnosis. Or has additional experience effected a revision of understandings?

Chapter V, "Theory of Hypnosis," is primarily a review of various theories concerning hypnosis in general, with no significant discussion in relationship to hypnotherapy. The review of the second part of the book will be brief.

The first three papers, each a single case report, do demonstrate well that hypnosis and psychoanalysis can be combined effectively in securing therapeutic results in difficult psychiatric problems. However, in all the papers, the authors appear over defensive about psychoanalysis. They stress the importance of psychoanalytic techniques if hypnosis is to be used effectively; they readily ascribe specialized psychoanalytic significances to hypnotic procedures and states; and they unhesitatingly make rather sweeping statements.

For example, the first paper is described in *The Bulletin of the Menninger Clinic*, 7:162, Sept.-Nov., 1943, as a report of preliminary work for a projected program. Yet, the authors, on the basis of a study of a single patient in whom the end results were not too gratifying, speak generally of a special transference deriving from trance induction which differs from the transference that arises out of the hypnotic interview. In a similar manner, they declare unequivocally (page 133) that "We believe that analysis of the transference in hypnotic psychotherapy plays a particularly important role in establishing . . . ego participation." Whether right or wrong, the data to support this assertion are lacking and no references are given in the paper to substantiate it.

The fourth paper describes a patient who resisted attempted analysis for five months. Then, in return for a special indulgence, the patient agreed to cooperate for hypnosis and (page 17g) "went into light hypnosis for an hour on each of two successive days while in the pack." Thereafter, the patient refused to cooperate for hypnosis. However, many, many months of other types of psychotherapy by the authors and others led to significant improvement. Unless the authors wish to attribute the eventual good results to the (page 179) "attempted hypnosis," this paper has no place in this book.

The bibliography for the four case studies lists 17 titles, one of which is the first paper itself, another relates to experimental hypnosis, eleven pertain to anorexia nervosa, and the others are general references.

The final 58 pages of text are devoted to a condensed version of the senior author's doctoral thesis. Since the purpose of the thesis, as stated on page 250, was primarily to illustrate a method of research using hypnosis as a tool, it has no place in a book dealing presumably with hypnotherapy.



# **Concerning Present Inadequacies in the Legal Recognition and Handling of the Mentally Ill**

Milton Erickson, M.D.

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The purpose of this paper is to present a brief discussion of an existing state of affairs which constitutes both an obstacle to the development and practice of institutional psychiatry and a barrier to the full recognition by the lay and professional public of psychiatry as a medical specialty requiring extensive training and experience. No effort will be made to propose remedies or to offer suggestions to correct the existing procedure. Instead, an endeavor will be made to outline two particular aspects of a significant problem which needs to be recognized and understood generally, namely, that psychiatry should be given equal rating as a medical specialty along with internal medicine, cardiology, dermatology, and other branches of medicine, and should not remain an undefined field in which legal technicalities, lay judgment, and inexperienced medical opinion is allowed to determine the welfare and the future of mentally ill persons.

For the most part this discussion is based upon the general situation existing in the state of Michigan, but it is, nevertheless, either in full or in part, directly pertinent to legal procedures in other states.

The first aspect to be discussed concerns the established legal procedure for the commitment of mentally ill patients. Without being pedantically exhaustive, the usual course of events in Michigan, as in various other states, is for some responsible person to file a petition with the Probate Court, stating their beliefs regarding the sanity of the individual, whereupon the court may issue a temporary order for the detention of the patient in some suitable institution. Before the expiration of that temporary order, two physicians are appointed to examine the patient and upon their findings the court may discharge the patient as not mentally ill or a permanent detention order may be issued. It is not the prerogative of the court to take cognizance of the findings made in the public institution where the patient may be placed for observation. Rather, those findings, however definitive and informative they may be, are legally to be disregarded. Thus, the order for temporary detention and study often constitutes nothing more than a legal but totally meaningless gesture.

The qualifications of the examining physicians appointed by the court to determine the future of a possibly mentally ill patient are essentially that these examining physicians shall be properly licensed, not connected with the institution to which the patient may be committed, and that they shall have had 3 to 5 years experience in the practice of medicine. As a result of these legally established qualifications, the author has seen commitment papers signed by pediatricians, dermatologists, pathologists, obstetricians,

cardiologists, general practitioners and even some psychiatrists. One can readily recognize the folly of a common practice of asking a psychiatrist to be the deciding consultant in an obscure cardiac case, but unfortunately, as yet the reverse is not readily appreciated.

The law properly provides that a person may be committed as mentally ill only on the basis of certain established facts. Lack of training and inexperience in psychiatry has resulted in innumerable instances of persons, actually psychotic and in need of institutional care, being committed illegally because the committing physicians' reports were not properly written, the necessary facts were not correctly established, and the court, in the rush of work and in the simple acceptance of mere opinion ordered such commitment. For example, the committing physicians' statements on one patient read, "This patient is insane, with catatonic dementia praecox, and should be sent to a mental hospital and treated for this condition."

Such a statement is merely a personal opinion, is not substantiated by factual statements as required by law and hence the commitment based upon it was illegal. Furthermore, in this particular instance, although the patient was acutely psychotic and in need of immediate psychiatric care, the correct diagnosis was general paresis. Hence that patient could not possibly be legally committed as suffering from catatonic dementia praecox, and the commitment was an absolute denial of his legal rights and privileges.

Nor is this an isolated instance. From time to time, patients actually psychotic at the time of commitment and still psychotic are discharged from the mental hospital because of illegal commitment, to their own detriment and to that of society as a whole, to say nothing of the debasement of psychiatry as a medical specialty in the eyes of the public and the discredit of the particular institution detaining the patient. The medical and psychiatric rights, privileges, and needs of the mentally ill patient should not be subordinated and sacrificed to questions of legal technicalities. In the case cited of the patient illegally committed as suffering from catatonic dementia praecox when the actual condition was one of general paresis, the court could properly have discharged the patient from the hospital to await commitment on legitimate grounds, all of which would have forced an unnecessary and even destructive delay in the proper treatment of that patient. And such discharges do occur, to the disadvantage of the patient and all concerned.

While it is true that the superintendent of a mental hospital has the right to accept or to refuse admission to a mentally ill patient and can rightly and arbitrarily refuse to accept patients improperly committed, the needs of the individual and of society as a whole cannot be satisfied by arbitrary legal considerations. Nor can the mental hospital serve the community conscientiously and adequately by disregarding the needs of an individual because of an error by someone not directly interested in proper psychiatric treatment of an individual.

The socially conscious superintendent must necessarily place the welfare of the individual and of society above debatable legal questions. He cannot arbitrarily discharge a patient committed to the hospital and accepted in good faith because of a subsequent

discovery that legal technicalities actually render the commitment illegal or questionable. The patient's rights and needs as a sick person, and the importance of early and adequate psychiatric treatment cannot and should not be made to wait upon a final judicial determination of what constitutes proper legal procedure. Nevertheless, as has been mentioned, the court is at full liberty, in case of an error in commitment, to discharge a patient seriously in need of psychiatric treatment, and frequently does so to the disadvantage of the patient, the discredit of the institution, the detriment of psychiatry, and without profit in the correction of the defects of the legal procedure.

The second aspect of the problem concerns the failure of the untrained, the inexperienced physician to recognize psychiatric problems and his consequent inability to appreciate their significance. Too frequently patients who are definitely and unmistakably psychotic but whose symptomatology is of such character as to require specialized training and experience to be recognized are denied the benefits of hospitalization and treatment in the early stages of their mental illness.

As mentioned before, it is of little real medical significance who recommends commitment for the mentally ill patients, but it is of serious and destructive significance to the mentally ill patient and to his relatives and to society as a whole to have an early, obscure, or difficult to recognize mental illness completely unrecognized and disregarded. In psychiatry and especially in relation to psychoses, the entire future and welfare of the patient and often that of his family is at stake, and merely an arbitrary number of years in an unrelated field of medicine does not qualify any physician to sit in judgment upon the proper psychiatric care of that patient. Nevertheless, under existing legalities, the untrained, the unqualified, and the inexperienced sit in judgment to determine a psychiatric patient's entire future. And the court, in accord with established legal custom, is, in essence, forced to disregard entirely the findings and the advice of those physicians qualified by training and experience, to whose care the patient was temporarily committed for observation and study, presumably for the guidance of the court but actually merely to fulfill the letter of the law and not really to serve adequately human needs.

In those cases where the patient expresses a wealth of hallucinatory and delusional ideation and shows bizarre behavior easily recognizable as psychotic, no specialized training is necessary to permit the ready recognition of an obvious psychosis. However, all psychotic patients are not easily recognized as mentally ill, even when they have a wealth of delusional and hallucinatory ideas. They may be so secretive that they may be unwilling to disclose to a stranger their distorted ideas, or they may have sufficient insight to recognize the possible inferences that might be drawn by the court physician if they became communicative. Such patients can easily and often do give sufficiently normal replies to the customary questions asked of them to convince the court examiner of their mental soundness. This is not an infrequent occurrence.

Furthermore, a psychiatric problem is not always to be recognized in a few minutes or even a few days, and no court physician has the time to make a long continued observation and study of a patient. Indeed, patients are often placed by the court in the

mental hospital on a thirty-day observation order. While this is a legal recognition of the need and importance of time in studying a psychiatric patient by competent psychiatrists, the discharge of that patient may depend wholly upon a few minutes observation by psychiatrically untrained physicians, who may be totally at variance with experienced psychiatrists in their findings.

Then too, the same sort of diagnostic problems that exist in other fields of medicine obtain in the field of psychiatry. The correct differentiation between a simple maladjustment, a behavior problem, a neurotic manifestation, and an early sign of a psychosis requires diagnostic skill based upon highly specialized training and experience. The more difficult the task, the earlier the signs of mental illness, the greater is the need of the patient and all those concerned for competent psychiatric help. Failure of the recognition of mental cases and refusal and consequent postponement of treatment serve only to increase the severity of mental illness, to render treatment less hopeful, and to militate against the patient's future welfare.

To illustrate some of the problems that arise from the present procedure of relying upon psychiatrically untrained physicians for presumably expert opinion to determine the future of mentally ill patients, the following case histories will be cited briefly. They have been selected from a large number of comparable instances because they disclose the difficulties forced upon the untrained physician or because they exemplify the tragic possibilities of an error in judgment. The case histories have been disguised to conceal identities, but there has been no significant alteration in the psychiatric symptomatology, and while most of them represent Michigan cases, some are from other states.

Patient No. 1 demonstrates the tragedy that may result from lack of psychiatric training. This twelve-year-old child was first seen in psychiatric consultation in a general hospital because of continuous sobbing, fear reactions, and almost delusional statements about being "bad". The psychiatrist recommended immediate commitment and prompt treatment for early schizophrenia.

The court-appointed physicians found only evidence of simple maladjustment in an unhappy home situation and commitment was not recommended. Approximately 18 months later the patient was admitted to a mental hospital for temporary observation, this time with a history of progressively worse adjustment, culminating in homicidal attacks upon members of the family.

Adjustment to the psychiatric ward was excellent and when seen by the court physicians, both concluded the patient to be mentally well and both physicians criticized the hospital for detaining so young a patient. Before one of the physicians had filed his report, however, he visited the hospital to interview another temporary observation patient. He again checked on Patient No. 1 and discovered a state of catatonic stupor which led him to revise his report. As a result of the disagreement of the court physicians at the court hearing, the case was postponed and another temporary observation period ordered. The third physician appointed discovered the patient in a state of catatonic excitement, and commitment was ordered. Thus approximately two years after the patient had been

recognized by a trained psychiatrist as suffering from early schizophrenia and in need of prompt treatment, therapy first became available. One can only speculate as to the traumatic effect upon the patient of the long series of maladjustments finally leading to commitment and upon the role those experiences played in the patient's slow and unsatisfactory convalescence. It is reasonable to believe that had treatment been instituted when first recommended, the further progress of the patient's mental disorder to a homicidal state could have been prevented. Certainly, this patient's rights as a mentally ill patient were violated, even if legally so.

Patient No. 2. This patient illustrates clearly the need for psychiatric training to permit recognition of mental disorders. A young man was brought to the hospital on an emergency order by the police who declared he had delusions about electricity. Four trained psychiatrists interviewed him extensively, found no delusions about electricity or other psychopathological ideational trends. However, each psychiatrist independently reached the clinical conclusion that the patient was suffering from early schizophrenia because of general inadequacies of affective responses. Finally two of the psychiatrists, determined to verify their clinical impression, reinterviewed him exhaustively without critical results until resort was deliberately made to a schizophrenic mispronouncement of the word "electricity" as "electric city."

The patient's reply was most illuminating. "I've been wondering when you fellows would get around to asking me about electric city instead of electricity. I thought you weren't interested, so I just told you what I knew about electricity until you showed some interest." There followed a wealth of delusions centering about "Electric City," which enabled the patient to set the stage for the court physicians by demanding to know if they were just interested in electricity, or if they really wanted to know about "electric city." In the ordinary course of events this patient would have been discharged until such time as he would have volunteered his secret ideational content. However, specialized psychiatric training permitted an appreciation of those intangible affective reactions and a recognition of the frequent need to meet a schizophrenic patient on his own terms and to use, if necessary, his own peculiar schizoid language.

Patient No. 3 represents a serious social tragedy. A 45-year-old man became assaultive when ordered to "move on" by a policeman. He was arrested, suffered an epileptic convulsion, and was judged by two competent psychiatrists to be suffering from a psychosis with epilepsy and to have serious homicidal trends. He was transferred to a mental hospital for observation because of the recommendations of the psychiatrists. When seen by the court physicians, he made a good impression on them, and they observed no evidence of a psychosis nor of homicidal trends. Six days after his discharge as not psychotic by the court he suffered another convulsion, seemed to make good recovery from that seizure, but a few hours later killed a family of five with an axe.

To ask the psychiatrically untrained physician to offer an expert opinion on such a problem is criminally wrong. Only extensive experience and specialized training can qualify the medical man to deal adequately with such a problem, and even the well-experienced psychiatrist can easily reach the wrong conclusion in such a case as this.

However, in this instance, two psychiatrists did reach the right conclusion but their opinion was over-ruled by inexperience at a tremendous social cost.

Patient No. 4 represents an instance where the patient's own needs were recognized only after a roundabout procedure. After having been in four different mental hospitals, the patient was finally ordered released by the Probate Court, a sanity hearing was ordered, and restoration of sanity was the result. Shortly thereafter the patient's unusual and bizarre behavior resulted in arrest and a temporary order for mental observation. The first three court physicians found the patient mentally well but at the insistence of the patient's family physician and the family attorney, the temporary order for observation was continued until the court had appointed two psychiatrists who promptly made a diagnosis of schizophrenia, paranoid type, and commitment was then finally ordered.

This patient has been used repeatedly for teaching purposes because of the perfection with which the role of a mentally normal person is played. Invariably the medical students are convinced that there has been a miscarriage of justice until the patient selects from the group some one who appears sufficiently trustworthy for the patient to relate confidentially a wealth of bizarre delusions and hallucinations otherwise inaccessible.

While the patient's general behavior as a free member of society would have forced eventually a recognition of the mental disorder, 4 different hospitalizations, a restoration of sanity, and further temporary observation were futile, ineffectual procedures that actually delayed any effective care of the patient until the intervention of the family physician and the family attorney secured competent psychiatric opinion.

Patient No. 5 is an instance of individual tragedy. She was admitted on a temporary order as suffering from a possible alcoholic psychosis. The hospital psychiatrists made a diagnosis of chronic alcoholism with psychosis. Within ten days the patient had made an excellent superficial recovery, and upon the recommendations of the court physicians she was ordered discharged, despite the insistence of the ward physician that commitment and treatment were warranted. Two months later, all her resources exhausted, she was picked up by the police while intoxicated and was returned to the hospital acutely psychotic and seriously damaged organically by her prolonged debauch. While the future of any alcoholic is uncertain, this patient's life history indicated a reasonably good prognosis up to the moment of her discharge from the hospital by the Probate Court. Now, more than a year later, she is progressively deteriorating.

Patients Nos. 6, 7, 8 and 9 are all instances of tragedy to the family as a result of existing legal procedures. All were women, admitted for temporary observation upon the petition of the husbands and all were found by the hospital psychiatrists to be acutely psychotic with alternating periods of excited behavior and seemingly normal lucid intervals. In each instance, the court physicians found the patients not psychotic, their discharge from the hospital automatically followed and the subsequent development in each case was a disruption of the home and the scattering of the children in three of the cases among relatives, since the husband could not take care of his wife and the children also. In the

fourth instance there were no children, and the patient left her husband to live with other relatives, thereby disrupting another home because of her vagaries.

In each of these cases, while the psychoses were unmistakable to the trained psychiatrist, there was adequate opportunity for an error in judgment by someone lacking specialized training. The future for each of these patients is, in all probability, an aggravation of their symptomatology and eventual commitment to a mental hospital at a later date with treatment much less hopeful.

Patient No. 10 represents another type requiring special training to recognize. Over a period of a year she had been admitted to various private hospitals but each time she had herself removed by relatives before a diagnostic study could be made. She finally sought an order from the Probate Court for temporary observation in a mental hospital. After an extensive study, the hospital psychiatrists made a diagnosis of schizophrenia, catatonic type.

This patient had a college background, had studied psychology and psychiatric textbooks, and was able to discuss her hallucinations, her feelings of depersonalization and unreality and her periods of muteness and physical rigidity in a competent, objective fashion with a remarkable degree of purely intellectual insight.

When she was examined by the court physicians, the patient, as she carefully explained later, "took a perverse delight in giving them all the normal answers and convincing them that I am not in the least psychotic." As a result, both physicians believed her to be mentally well.

When she was questioned about her need for treatment and the adverse effect of the court physician's opinion upon this, the patient readily agreed that she needed treatment, but declared cryptically that the opinion of the court physicians was of no concern to her because she could not be removed from the hospital against her will.

What she meant by this became apparent the day before her hearing in court, at which time she developed a severe stupor and remained in that stupor for a week. Thereby she forced a postponement of the hearing, re-examination by duly appointed physicians, and subsequent commitment.

After adequate treatment she was paroled from the hospital and continued in good remission, earning her own living, until contact with her was lost.

In this case, only the patient can be given the credit for effecting a recognition of her needs and rights as a mentally ill patient. Her educational background, her understanding of existing legal procedures, her awareness of the tendency of the committing court to disregard the findings of the institution in which a patient is placed for mental observation and study, and her own pathological need to dominate the total situation, served fortunately to rectify a serious unintentional error of judgment by well-intentioned but not adequately qualified medical men.

Case 11 is an instance in which psychiatry, medicine, and the court all came to serious grief because of the existing legal procedures. It is merely an example of numerous other similar cases and reflects the tremendous need for adequate legal provision for the recognition of mental disease by properly trained and experienced psychiatrists.

This patient, confined to a mental hospital because of mental illness characterized by paranoid trends, was given a hearing in court to determine if hospitalization should be continued. Despite the availability of the hospital records, the presence of the ward psychiatrist at the court hearing, and the actual verbalized protests of the ward psychiatrist, the court took cognizance, in perfectly legal fashion, only of the opinions of two physicians appointed by the court. In accord with their recommendations, the court released the patient, who within a month's time killed two members of his family and committed suicide, all in full accord with the actual predictions made by the ward psychiatrist, and in accord with the information available in the hospital records.

Nor is this the only instance in which untrained, inexperienced, and unqualified medical men are called upon, under existing legal procedures, to assume responsibilities not rightly theirs. Not always are the results so tragic and so apparent, but in many instances the fate of an individual and even of his family has been tragically resolved on the basis of untrained medical advice when there was available better qualified advice and understanding. In the practice of medicine it is the obligation of every practitioner, if he cannot do good, at least to avoid doing harm. Especially does that obligation rest upon those whom an outmoded legal procedure calls upon to furnish skills not possessed and which are available and acceptable and which lack only the general recognition that must come first from the medical man himself before it can become an established legal custom.

While only 11 cases have been cited, they are but a selected few from a long list of those available to the author. Furthermore, those presented or available for presentation are not unique, since mental hospitals throughout the country could cite extensively similar material. One needs only to read social service histories on out-of-state patients to realize how frequently psychiatry as a medical specialty requiring definite training, skill and experience has been unrecognized, overlooked, and even disregarded by the courts and by the lay and professional public.

In brief, there is need for the lay and professional public to acknowledge that the welfare and the future of mentally ill patients need more legal recognition and protection than is possible under existing legal procedures.

# A Teaching Program for Commissioned Reserve Medical Officers

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The experience of the first world war clearly demonstrated the tremendous importance of psychiatry in military medicine. That lesson has now resulted in an ever-increasing utilization of psychiatry in the present conflict, an item of fact which is well known and requires no further discussion. However, despite the significant growth in the recognition of the importance of psychiatry as a medical specialty, there has not yet been sufficient time since the first world war to place psychiatry on the same basis of adequate teaching in medical schools that has been accorded to other medical subjects.

As all of us know from personal experience and as Ebaugh and Rymer have shown in their extensive study of "Psychiatry in Medical Education," the average medical student is much too frequently graduated with an inadequate and often sketchy knowledge of psychiatry. Teaching too often is limited to a restricted number of didactic lectures and an insufficient amount of clinical work, usually with frankly psychotic patients who represent primarily only a limited section of the field of psychiatry. A knowledge of those problems that constitute the greater part of psychiatric practice such as. personality problems and maladjustments, behavior disturbances, emotional instability and immaturity, psychoneuroses, psychosomatic disorder, defects of intelligence, the incipient states of the psychoses and all those psychopathological conditions that require the service of a psychiatrist for recognition and treatment, is left primarily to the experience to be gained after formal educational requirements are fulfilled.

The crowded medical curriculum actually precludes the average medical student from becoming adequately acquainted with all the variety of psychiatric problems that constitute so significant a part of medical practice and which needs to be recognized and understood sympathetically if proper treatment is to be given the patient. We are all aware of the tragic results of neglect, misunderstanding and failure of treatment that may attend upon the simple statement, "There is nothing physically wrong with you," when such a statement disregards the significant fact that psychologically the patient is as much disabled as if he were bed-ridden by chronic somatic disease.

Nor in the present organization of medical teaching is there any clinical setting to permit the student to acquire an adequate knowledge of what is psychologically normal or abnormal since such concepts are so intangible as compared with physical evidences of disease. Hence, it is almost essential that prolonged experience be relied upon as a measure of teaching what may be considered normal and what may be regarded as falling into the field of psychiatry.

That this is an unfortunate state of affairs in medical education is readily appreciated even in peacetime. It is even more quickly recognized and regretted now when the newly trained physician, before he has had the time or opportunity to glean that special experience with and understanding of psychological illness, is being taken into the army where psychiatric knowledge and techniques are so essential in every phase of military medicine. Hence, there is now a special, actually imperative, need to provide much more adequate and effective psychiatric training for the medical student than ever before because of the imminence of military service, during which the medical man, regardless of training and specialty, will face along with infection and injury the problems of shell shock, hysteria, conversion neuroses, panic reactions, personality disturbances and a wealth of other psychiatric problems.

As yet, the reorganization of the medical school curriculum to meet wartime needs and the enrollment of eligible students in the medical reserve corps has done little to provide the opportunity for that additional psychiatric training actually required by the present military needs. Accordingly, this need for better psychiatric training constitutes a problem directly incumbent upon those interested in psychiatric teaching to meet as rapidly and as completely as possible and with least interference with established teaching conditions.

Study of this important teaching need and discussion of it with Dr. Henry Reye, head of the department of neuropsychiatry at the Wayne University College of Medicine, with Lieutenant-Colonel Roscoe W. Cavell, Senior Medical Officer at the Detroit Induction Station, and with Colonel Roy Halloran, Chief of the Division of Neuropsychiatry for the United States Army, coupled with personal experience at the United States Army Recruiting and Induction Station at Detroit as an examining psychiatrist suggested the possibility of a new teaching venture in psychiatry.

As it was envisaged, this plan would provide medical students with a new and exceedingly rich variety of clinical experience. Furthermore, it would serve materially to give those students holding reserve commissions a valid understanding and significant appreciation of the psychiatric problems they would be likely to meet in the armed forces. The program as it has been worked out has proved pleasingly simple and it has been satisfactorily effective and instructive. Informal permission and approval were secured from the authorities to permit those senior students at Wayne University College of Medicine holding reserve commissions to attend regularly at the induction station in groups of two or three at least one entire day per week. There, under the tutelage of qualified psychiatrists interested in teaching, the students sit in on the regular psychiatric examination of selectees and recruits. In this situation they are given ample opportunity to observe intensively and repetitiously, under actual clinical conditions, literally every variety of psychiatric problem, and to make direct and immediate contrasts between the normal and the abnormal and to note the range and the variety of both the normal and the abnormal, an item of paramount importance in teaching psychiatry.

In actual procedure the students are given an initial or preliminary discussion of the nature and character of the psychiatric examinations to be made. The purpose and the

significance of the routine questions asked and especially the index character of the questions is explained in detail, and, of course, all of this is subsequently illustrated over and over throughout the day. Thus, they understand that the question, "How far through school did you go and how old were you when you left school?" if it elicits a reply of "Fourth grade at 17 years," constitutes a possible index of intellectual defect. Similarly the question "Have you ever been arrested and for what?", often constitutes a good index of the selectee's capacity for adjustment to authority and order.

Instruction is given on the need to inspect the selectee carefully as he enters the booth, to observe any physical defects, signs of neurological disease, psychomotor incoordination, unusual or overcompensatory behavior patterns, evidences of emotional disturbance or instability, and to note the character of his response to the examination situation, whether friendly, cooperative, antagonistic, belligerent, indifferent, detached, or fearful and worried. Emphasis is also placed upon the need to observe any inconsistencies, incongruities or any unusual manifestations of behavior not readily understandable and each of these possible observations is stressed as a point of special inquiry, and their possible significance is indicated with the full knowledge that sooner or later during the day they will all be adequately demonstrated and illustrated.

After this preliminary discussion the routine procedure of examining selectees is begun with the student sitting at the table beside the psychiatrist and attending to the examination procedure.

At this point it may be well to anticipate any special inquiry and objection regarding the undesirability of the presence of a third party during a psychiatric interview. Originally it was feared that such lack of privacy would constitute a serious barrier to a satisfactory questioning of selectees, especially in relation to intimate questions. Actual experience, however, has disclosed this fear to be unfounded. Among the thousands of selectees that have been examined since this plan was inaugurated less than ten have objected to the presence of the students and all of these were found to be obviously unsuited for military service. The procedure of the induction station examinations serves to prepare the selectees to accept the presence of another person at the psychiatric examination as a matter of simple routine.

During the actual examination as each selectee is questioned a running commentary is offered to the student on any significant positive or negative information obtained and this is related in each detail to the general introductory comments made in discussing the proposed examination with the student. Sometimes this running commentary is in the form of further questions that elicit additional detailed information to permit the student to grasp more fully the significance of the information obtained. Frequently, it is possible to offer a direct critical commentary upon the information given in such fashion that it not only enables the student to understand but it serves also to make the selectee feel that his complaints and symptoms are fully understood and appreciated sympathetically and thus it proves an actual aid in the examination. As each examination is concluded a concise statement of the outstanding observations, whether normal or abnormal, is given,

and in case of a rejection the reasons for the rejection recorded on the examination blank are concisely reviewed and their importance indicated.

This constant repetition, while at first a bit confusing to the student, soon serves to teach him to observe and to expect a definite pattern of behavior which, though it may change somewhat in content, invariably leads to either a positive or a negative conclusion for understandable reasons. Above all it teaches the student as no other procedure could that fingernail biting, hyperhidrosis, gastric complaints and phobic reactions can constitute an integrated pattern of response that may be found over and over, and, further, that not one of these symptomatic items should ever be considered as an isolated symptom. Of primary importance in the teaching of psychiatry is this need to convey to the student an adequate appreciation of the interrelationship and pattern-like character of psychological complaints.

Usually at the beginning of each day an effort is made to select for the first half dozen selectees those who are obviously suitable for military service and attention is systematically called to every evidence of normality that they show and also to the range of normal behavior manifested. Following this, there is an effort made to select from the waiting line possible rejectees to establish a sharp contrast between suitable and unsuitable military material. Particularly illustrative cases are dealt with in the same detail and, through the helpful cooperation of the other examining psychiatrists, many instructive cases are sent to the psychiatrist with the student.

No effort is made to sell psychiatry to the students. A straightforward matter-of-fact attitude is taken toward the whole situation. They are cautioned, however, to be highly critical of every psychiatric judgment made and to keep well in mind for later discussion any exceptions and disagreements that they may have. As the day continues and more and more selectees are seen, the students develop an ability to appreciate sharply the contrasts between the acceptable and the unacceptable selectees and to recognize the reality and the validity of a never-ending variety of neurotic complaints reflected against the background of personality maladjustments and social, intellectual and economic inadequacy and incompetency. Their first reaction is to discount and discredit neurotic complaints, to pay little attention to over-compensatory behavior, vasomotor instability and to overlook completely evidences of emotional immaturity and inadequacy. But as the contrast between the normal selectees and those unfitted for military service continue repetitiously throughout the day, they become increasingly enthusiastic in their attention to the significance of psychiatric signs and symptoms.

One other item of importance concerns the development of the student's attitude toward psychological illness. This may be illustrated best by an account given by one of the students. His statement was, "I have assisted one of the local physicians who does physical examinations for the local draft board. On all of the neurotics my attitude has been, 'Put him in the army and make a man of him.' My experience here today has made me realize that a neurotic is sick, that he cannot measure up to the normal man and that just putting him into the army will not make a man out of him but will serve only to make him a hospitalized psychiatric patient and thus a liability to the entire country." This same

significant realization has been offered spontaneously by a large proportion of the group, and in itself demonstrates the effectiveness of this teaching venture.

The reaction of the students to this program has been most gratifying. At first, because it was established as an additional and actually extra curricular course, the students were resentful over this new demand upon their time. Many declared that they were not fundamentally interested in psychiatry, that there could be little sense spending an entire day listening to so-called psychiatric examinations of healthy normal young men and that the entire program seemed to be nothing more than a wishful effort to exaggerate the importance of psychiatry.

However, after the first few students had spent a day at the induction station and had reported upon their experience to their classmates there was a complete reversal of attitude. The majority of the class requested the opportunity for additional days at the induction center. Every member of the group insisted that the course should be continued indefinitely for each succeeding class with the provision that it be opened also to those not holding commissions as a measure of better preparing them for the practice of medicine. Finally, the original antagonistic attitude has been altered to a general criticism of the teaching of medicine without sufficient emphasis upon the importance of psychiatry.

In brief, this psychiatric teaching program has served satisfactorily to give medical students a genuine appreciation of clinical psychiatry and of the existence of psychological illness unrelated to the question of physical soundness. It has made them realize that psychological illness is exceedingly common, that it does constitute a serious medical problem, and that it is something requiring intelligent recognition and disposition rather than dismissal as inconsequential. Finally, it has made the students realize, as never before, the importance of psychiatry in military medicine as well as in general medicine.

# Hypnotism

Encyclopedia Britannica, 14<sup>th</sup> Edition, 1961.

Hypnotism is the term applied to a unique, complex form of unusual but normal behavior which can probably be induced in all normal persons under suitable conditions and also in many persons suffering from various types of abnormality. It is primarily a special psychological state with certain physiological attributes, resembling sleep only superficially and marked by a functioning of the individual at a level of awareness other than the ordinary conscious state; for convenience in conceptualization, this is called unconscious or subconscious awareness. Functioning at this special level of awareness is characterized by a state of receptiveness and responsiveness in which inner experiential learnings and understandings can be accorded values comparable with or even the same as those ordinarily given only to external reality stimuli.

When hypnotized, or in the hypnotic trance, the subject can think, act and behave in relationship to either ideas or reality objects as adequately as, and usually better than, he can in the ordinary state of awareness. In all probability this ability derives from intensity and restriction of attention to the task in hand, and the consequent freedom from the ordinary conscious tendency to orient constantly to distracting, even irrelevant, reality considerations.

The subject is not, as is commonly and wrongly believed, without will power, or under the power of the hypnotist. Instead, the relationship between the subject and the hypnotist is one of inter-personal co-operation based upon mutually acceptable and reasonable considerations. Hence, the subject cannot be forced, as a function of hypnosis itself, to do things against his will, as is sometimes claimed. He can be aided in achieving possibly defined goals, but frequent failures in hypnotherapy attest the limitation of hypnosis in accomplishing even wanted purposes and extensive and reliably controlled studies discredit the possibilities of and social use of hypnosis.

The history of hypnosis is as ancient as that of sorcery, magic and medicine, to the armamentaria of which it belonged. Its scientific history began in the latter part of the 18th century with Franz Mesmer (q.v.), a Viennese physician who used it in the treatment of patients. Because of his mistaken belief that it was an occult force, which he termed "animal magnetism," that flowed through the hypnotist into the subject, he was soon discredited; but mesmerism as it was named after him, continued to interest medical men. Extensive use was made of it by a number of clinicians, without adequate recognition of its nature until the middle of the 19th century when the English physician James Braid studied its phenomena and coined the terms hypnotism and hypnosis.

Thereafter many scientifically trained men studied hypnosis, but not until after World War I was much progress made. This progress derived from the recognition of the re-educative possibilities afforded by hypnosis. World War II gave further impetus to its study, greatly extended its recognition and utilization and freed it from many of the superstitions, fears, and misconceptions that had hampered its scientific acceptance and investigation. The next significant developments in the history of hypnosis occurred in the Mid-1950s when both the British and American Medical associations formally approved its medical use and discountenanced its use by the laity. At that period also was organized the American Society of Clinical Hypnosis, with international scientific societies.

### ***Hypnotic Technique***

Popular belief still ascribes significance to illogical devices and rituals such as "making passes" or stroking the body, the use of "hypnotic crystals," the "eagle eye" and the "hypnotic command," all of which belong to the charlatan's stock in trade. Actually, the important consideration in inducing hypnosis is that the subject be willing, co-operative and interested in learning a new experience. To such a subject a trusted operator can, progressively, persuasively, and repetitiously, suggest tiredness, relaxation, eye closure, loss of interest in externalities, and an increasingly absorbing interest in inner experiential processes, until the subject can function with increasing adequacy at the level of unconscious awareness. The length of time required to induce a trance differs greatly with subjects and with trance situations, and the time spent should be in reasonable accord with both the importance and the specific character of the hypnotic work to be done. The charlatan boasts of his speed; the scientist considers time an important variable. "Thus, the dentist might need only a few minutes to induce the trance state requisite to permit a tooth extraction; the psychologist might need an hour to effect those psycho-neuro-physiological responses needed for a long involved laboratory experiment; and the hypnotherapist, because of his patient's needs, might distribute over a period of months the development of a trance state otherwise possible in a short period of time.

Another essential element in technique—for either investigative or therapeutic work—is the utilization of the subject's own patterns of learning and response, rather than an attempt to force upon him by suggestion the hypnotist's limited comprehension of what constitutes experiential validity for the subject. Failures in hypnotic experimentation and therapy often derive from treating the subject as an automaton, expected to execute commands in accord with the hypnotist's understanding, rather than as a personality with individual patterns of response and behavior.

### ***Hypnotic Phenomena***

Hypnotic phenomena differ from one subject to another and from one trance to another, depending upon the purposes to be served and the depth of the trance. Hypnosis is a phenomenon of degrees, ranging from light to profound trance states but with no fixed constancy. There are, however, certain basic manifestations, the extent and clarity of which vary. Foremost among these is rapport, which signifies the limitation of the

subject's awareness to that which is included in the hypnotic situation. Usually the subject responds only to stimuli from the hypnotist, who may limit or direct the subject's awareness or responsiveness as is desired or needful. However, in accord with personality needs or the demands of the situation, the subject may remain in or actively establish contact with part or all of the circumstances surrounding the trance.

Catalepsy, another hypnotic manifestation, is properly tested only indirectly, since direct tests may elicit at as a responsive rather than as a spontaneous phenomenon. Catalepsy is a state of balanced muscle tonicity which permits great economy of effort, allowing the subject to maintain postures and positions for unusually long periods of time.

Suggestibility a state of greatly enhanced receptiveness and responsiveness to suggestions and stimuli, constitutes the central phenomenon of hypnosis. It is characterized by the remarkable facility with which the subject can respond to either external stimuli or those deriving from inner experiential acquisitions. However, suggestions must be acceptable to the subject, and rejection of them can be based upon whim as easily as upon sound reasons. By acceptance of and response to suggestions, the subject can become psychologically deaf, blind, hallucinated, amnesic, anesthetic or dissociated, or he can develop various special types of behavior regarded by him as reasonable, or desirable in the given situation.

The psychological processes involved are essentially those of vivification of memories, ideas, understandings, emotions—indeed, any type of experiential acquisition—so that they are experienced subjectively as deriving from external events rather than from internal processes. This is the feature of hypnosis most often abused by the charlatan, and it is also the feature that permits the greatest accomplishments in psychology, dentistry and medicine.

A most fascinating manifestation, also of great scientific importance, is that of posthypnotic suggestion and behavior. By this is meant the execution, at some later time, of instructions and suggestions given in a trance and intended to become a part, either interpolated or integrated; of a later activity. For example, a pregnant patient may be instructed posthypnotically to develop, at some future time when labor begins, an obstetrical anesthesia to meet the needs of childbirth. Such use of posthypnotic phenomena offers extensive opportunities for direction and guidance of behavior in terms of the individual's needs and patterns of response without dependency upon immediate guidance and relationships.

Amnesia of any degree of selectiveness or comprehensiveness may be developed in hypnosis, either, spontaneously or by instruction. It may include all the events of the trance state or only selected items, or it may be manifested in connection with matters unrelated to the trance. Hypnotic amnesia is reversible; it may be induced, abolished, reinduced, or altered by the operator or by the subject if adequate personal motivation develops. It is very useful in both experimentation and therapy and can be used in a variety of ways. For example, otherwise uncontrollable pain in malignant disease has been partially controlled by use of amnesia.

Conversely, hypermnesia, an ability to remember that transcends the everyday ability is another aspect of hypnotic behavior that is valuable experimentally and therapeutically. For example, in the trance state, the subject, by virtue of an uncritical willingness to make the effort and a freedom from inhibitions deriving from preformed judgments, can remember vividly long-forgotten, even deeply repressed experiences, recount them in extensive detail and still maintain all amnesia for them at the ordinary level of consciousness. This remarkable ability permits the recovery of memories otherwise unavailable, makes possible extensive exploration of the experiential past, and offers opportunities for studies of basic processes underlying learning and memory.

A striking phenomenon of the profound trance is somnambulism. This is a state of deep hypnosis in which the subject can present the outward appearance and behavior of ordinary awareness but is able to manifest readily and often spontaneously any type of hypnotic behavior within his personal capabilities. Some subjects never achieve this state, some reach it with a minimum of effort. It is of great value in certain specialized procedures and studies. Experience and training are often required even to recognize the somnambulistic state, and even more experience is necessary to induce it readily and to utilize it adequately.

Ordinarily all trance behavior is characterized by a simplicity, a directness, and a literalness of understanding, action, and emotional response suggestive of childhood. This is the phenomenon of regression, which can be enhanced so that the subject experiences a retrogressive loss of memories, learning, and responses, and those belonging to an earlier age are re-established. When developed carefully, this regression is not a re-enactment or a revivification of the past in terms of current understanding, but a restoration of previous response patterns through a process of amnesic loss of subsequent learning. This manifestation permits extensive exploration of the developmental aspects of the subject's experiential loss.

Dissociation, a detachment or separation of subjective from objective values, another highly complicated phenomenon, is of particular significance in effecting specialized leanings (for example, anesthesia or emotional objectivity) without arousing impeding or obstructing subjective reactions—the hypnotized subject, that is, can be made insensitive to a needle prick because the dissociation phenomenon prevents a subjective reaction (pain) from occurring.

Time distortion, first elaborated as a specific scientific concept in the mid-1940's, has proved to be useful in both hypnotic therapy and experimentation. It is essentially a function of speed of cerebration, a result of which the passage of time is perceived subjectively in terms of inner experiential processes and events. As a consequence, time as a personal experience may be "expanded" or "condensed" with resulting alterations in subjective values and psychological and physiological functioning.

Among other interesting hypnotic manifestations are enhanced visual and auditory imagery, automatic writing, depersonalization, various types of disorientation, and acceleration or inhibition of physiological functions.

### ***Autohypnosis***

Autohypnosis, or self-hypnosis, is both possible and feasible, but it is often a sterile procedure because of misconceptions of its nature and use. Usually the autohypnotist tries too hard to direct *consciously* the activities he wishes to take place at the hypnotic level of awareness, thus nullifying the effort.

Acceptance of autohypnotic processes, rather than attempted direction of them, leads to productive results. Usually autohypnosis is best learned through supervised instruction.

### ***Related Questions***

Certain questions are repeatedly asked about hypnosis. Among these is the possibility of employing hypnosis to commit crimes. The better scientific studies deny this possibility and therapeutic experience discredits it, but a few experimental studies, either inadequately controlled, or in protective situations, have resulted in pretended crimes. However, pretense is not reality, nor is hypnosis as essential in pretense.

Concerning harmful effects, none have been reported by earnest students of long experience, but the inexperienced and the arm-chair theorist are often emphatic in affirming such possibilities. Occasionally an amateur will hypnotize a person suffering from a personality disorder and mistake the evidence of that disorder from hypnotic effects. In this connection may be mentioned the harmfulness of lay hypnosis. This derives not from the hypnosis itself but from the misconceptions promulgated and from the discredit and disrepute that always attend dabbling by the uninformed in, and exploitation by the charlatan of, any field of beneficial learning.

Can hypnosis be induced without the subject's willingness or awareness? Hypnosis is based upon willingness and co-operation, but this may be concealed behind a superficial attitude of unwillingness; similarly, superficial willingness may conceal deep-seated unwillingness, with a consequent failure of trance induction. A trance state cannot be maintained without the subject's consent—actual or implied.

Then there is the question of what would happen if the subject could not be awakened, or if in some way the hypnotist were to be removed, leaving the subject in a trance state. The reply is simply that the trance state, being dependent upon an interpersonal relationship of mutual co-operation, would terminate upon the cessation of that relationship. It is possible to arrange with a subject to remain in a trance in the absence of the hypnotist, but this is merely a form of continued co-operation. Occasionally a subject may refuse through a sham to arouse immediately from a trance, but this is a problem only for the inexperienced and is not significant.

# **Early Recognition of Mental Disease**

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In the practice of medicine, whatever the branch may be, there is no better teacher than that form of experience usually called *Hind Sight*. No other teacher can possibly offer the instruction and the information to be gained by looking backward and realizing, in terms of the final outcome, what things might better have been done for the patient. By so looking backward adequately, one gains a full understanding of the entire course of an illness from the time of its earliest manifestations and symptoms to the time of its final result. It is only by means of a comprehensive longitudinal view of the patient and his illness that one can learn to recognize and to appreciate the significance and meaningfulness of the earliest symptoms.

This mention of hind sight is made because of its importance in mental hospital psychiatry, perhaps more so there than anywhere else. It is only with the patient in the mental hospital that one comes to realize so fully the importance and the revealing character of the individual's remote past history when seen from the perspective of a psychotic development as the final result. The absolute need, if the mental hospital patient is to be treated adequately, of knowing fully the innumerable items of the patient's personal growth, development and experience; or, in other words, of having adequate hind sight bearing upon the patient's entire past life, is readily recognized. To gain the knowledge requisite to any satisfactory psychiatric therapy, there need to be secured extensive social service histories, and all the detailed intimate facts about the patient that can be obtained from the family, relatives, friends, acquaintances, employers and, most particularly, if possible, from the family physician, who properly should constitute the most desirable source of special information of a helpful constructive type.

It is from the vantage point of these extensive histories, so carefully and deliberately compiled by the social service department and so necessary to the laying of any foundation for adequate psychiatric therapy, that the mental hospital psychiatrist has the opportunity to recognize not only what the early symptomatology was, but to recognize and to appreciate oversights, misunderstandings, failures, misjudgments, errors of omission and commission and all the other things that served to permit the patient's earliest symptoms of maladjustment to remain unrecognized and to grow progressively more serious and finally to become evidence of serious mental disease.

In other words, the adequate social service history constitutes primarily a systematic account of the earliest symptoms and manifestations of the course of the development over a long period of time to the final signs of full-blown mental disease. Hence, the

opportunity afforded by the social service history to view the mental patient with hind sight is unparalleled and it is against this background that we propose to offer our discussion of the early recognition of mental disease, and to present a consideration of the symptomatology of mental disease as it confronts the general practitioner, who properly comes into contact with mental disorders long before commitment is necessary.

However, before proceeding to a consideration of the actual early symptoms of mental disorder as they are seen by the general practitioner, discussion should properly be offered of the criteria or the yardstick by which recognition can be made early of the normality or abnormality in the individual case. In this connection, the concession is to be made at once that there can be no infallible rule by which to judge the individual patient, even as is the situation in general medicine. However, in ordinary practice, the physician is not likely to be mistaken who employs the simple yardstick of a marked rise in temperature as a definite indication of somatic illness. Likewise, in the matter of the early recognition of mental disease, we propose to offer a similar simple, though not infallible, yardstick or criterion of mental soundness, namely, one based upon simple common sense and the long and intensive experience every general practitioner has had with human beings of all types and varieties.

To explain: As you all realize, the patient comes to the general practitioner not to disclose his strengths and special aptitudes and abilities, but rather to reveal his weaknesses and inadequacies. Hence, the physician comes to know thoroughly and comprehensively the nature, character, variety, extent and number of human weaknesses and frailties without being misled by false fronts and pretenses. Perhaps no other class of people has a better opportunity of knowing what human beings really are than has the general practitioner, who sees his patients in all varieties of situations and circumstances. And it is this background of general, but intimate, knowledge of human nature that qualifies the general practitioner, interested in so doing, to recognize and to deal with the early symptoms of mental disease.

Thus, without even trying, the general practitioner comes to learn what sort of behavior may reasonably be expected of this person or that, and he is not surprised when one of his patients gets into trouble and when another achieves success. He has an adequate knowledge of how many bad things and how many good things to expect from his average patient. Thus, he knows that he is going to return in about a year to deliver another baby to Mrs. Jones; that Mr. Jones is not going to hold his job more than three months; that Mary Smith is certainly going to get in trouble before another six months; and that Bill Brown just hasn't a chance of making good in his present position. All of these items and innumerable other intimate facts are known by the general practitioner about the people in his community. They place him in an enviable position to recognize when something unusual or strange or inexplicable is happening to any one of his patients. Furthermore, his knowledge tells him roughly just how much that is unusual or bad can be expected in each individual case so that when the general balance in the individual's behavior becomes disturbed, he can readily appreciate that some sort of a serious change is occurring in that patient. In other words, the general practitioner may expect in each of his patients some quirks and oddities and eccentricities, but only so

many oddities for each particular patient, and when those peculiarities suddenly change and increase, he can appreciate easily and readily that something really is wrong.

And so, when recognition is given to the fact that everyone is queer in some respects, the question arises, "By what means, criterion or yardstick may judgment of abnormality be passed effectively and correctly?" Or in other words, how may the general practitioner, with a reasonable degree of certainty, decide that various manifestations in the behavior of his patient actually constitute early symptoms of mental disease and are not an evidence merely of individuality?

The suggestion we wish to offer in this regard as a generally satisfactory yardstick of normality concerns the purposefulness and usefulness of behavior. While we agree that all human behavior is necessarily purposeful, the usefulness of normal behavior is clearly recognizable, understandable, and effective so far as a reasonable achievement of personal goals and aims is concerned. Abnormal behavior, on the other hand, is not purposeful in a clearly understandable, recognizable, and effective fashion, and it is primarily directed to goals that are not in keeping or harmony with what one properly expects of that individual. Thus, behavior that does not serve a readily understandable and useful goal for the individual, that is not in keeping with what may reasonably be expected of that person, that is persisted in to such an extent that it interferes with the person's other and understandably useful behavior, is definitely abnormal and should be looked upon as necessitating medical attention by someone qualified by general experience in dealing with human nature. For example, the child who develops one temper tantrum after another until it gains its way and then capitalizes upon the gains so achieved, and thus carries out its own wishes, constitutes only a problem in management and education. But the child who develops innumerable temper tantrums for no readily understandable reason and does not make use of those tantrums to gain its own ends, but seems only to express thereby its disapproval of the world in general, constitutes another problem of a definitely abnormal type. Likewise, the woman who nags her husband for adequate reason is purposeful in her behavior so long as she does not let that nagging, however justified, interfere too greatly with the discharge of her own duties and obligations. But when that nagging becomes so extensive that it takes all her time and energy, it falls into the same category as that of the woman who nags her husband constantly without reason. Hence, it becomes abnormal because of its definite lack of a useful purposeful character. Or again, the young man who works hard and saves his money to attend college and then suddenly dissipates all of his savings and then returns to work and again saves his money, only to repeat his previous conduct, is showing behavior primarily lacking in understandable purposes and hence it is abnormal.

However, this does not necessarily mean that the purpose and goal of human behavior must necessarily be legitimate and desirable, since human nature is not perfect. Normal human behavior can be subject to prejudices, misunderstandings, ignorance, and to all the weaknesses of mankind, and yet have purposes and goals readily understood and appreciated as being harmonious to an individual possessed of normal desires and strivings, regardless of any errors of judgment and the lack of common sense in his behavior. In other words, to be abnormal, behavior must necessarily be lacking in

purposeful useful qualities so far as the reasonable average goals of the specific individual person are concerned. Such behavior is inconsistent and at variance with the other forms of behavior properly expected or common to the person, and it constitutes a handicap in his functioning as a capable citizen, since it results in a loss and waste of energy, and a defeating of his personal goals and aims.

In brief, to judge whether or not any particular item of behavior is normal or abnormal, one needs only to view that item in direct relationship to the general average pattern of behavior that is known and may reasonably be expected in that person. By such comparison and contrast, effective and reasonably correct judgment can be passed. Simply to view the item of behavior as an isolated phenomenon and as without relationship to the individual's background, leads to error and misunderstanding.

One other consideration relates to the variety of changes in the purposeful character of behavior. The changes, alterations and variations in the purposefulness of behavior vary from over-emphasis to complete loss, to a distortion in an explicable fashion. For example, the woman who scrubs her floors endlessly to the neglect of other duties shows an over-emphasis of purpose upon an ordinarily useful task. Or the young man with a good industrial history who loses his job and then sits quietly about home, always planning month after month to look for work on the 'morrow, shows a complete loss of purpose. And as for distortion in a nonunderstandable fashion, one may take the example of the obese girl who, resenting the ridicule of her associates, diets to the point of the extreme emaciation of anorexia nervosa. To these examples, out of your own experience, you can add innumerable instances, with ready appreciation of the need to judge behavior according to the purposes it serves for the specific person.

We may proceed now with a consideration of what those forms of behavior are, which, judged against the background of their purposefulness to the individual, constitute early symptoms of mental disorder and disease. Perhaps the best approach is by a discussion of various separate categories determined in relation to the particular types of mental disorder to which they may lead. Accordingly, we shall take up first the various items that indicate behavior problems and behavior disorders in children, and, as an essential caution in this connection, we wish to emphasize that each and every one of the evidences of behavior disorder that may be found in children, normally and naturally occurs in practically all children as a part of the proper and necessary growth and development of the child. It is only when these various disorders occupy too much of the child's time and effort, when they bring about a general disturbance in the child's total adjustments, that they are to be considered abnormal. It is not necessary for any one of these evidences of maladjustment to be abnormal in itself, but if it interferes with the ordinary life of the child, or if it causes those concerned with the child's welfare to place too much emphasis and stress upon it to the detriment of the child's welfare, then it is to be regarded as a definitely destructive influence upon the child.

The decision as to the normality or abnormality of any one or more items of behavior should properly rest with the family physician who has the opportunity of appreciating adequately what type of behavior may reasonably be expected within a family group,

what purposes that behavior may serve and what effect that behavior may have upon the individual and those associated with him. With this caution, we shall proceed to the individual items signifying behavior disorders and the instances we mention refer only to those occurrences in which the particular manifestation is excessive and destructive to the child's welfare.

Ordinarily, the evidences of behavior disorders in children are the most easily recognizable, but all too frequently they are dismissed as unimportant on the assumption that the child will necessarily outgrow them. A review of the case histories of our patients here, however, will disclose too often that childhood maladjustments never were outgrown. Rather, those early maladjustments serve to establish and to fix within the individual unhealthy and abnormal ways of behaving so that the individual becomes progressively more handicapped in his general life situation.

Childhood behavior disorders are easily recognized since we all have an excellent idea of what kind of behavior to expect from any child of a given age, regardless of physical and mental endowments. Hence, any departure by the child from that general average of behavior is most noticeable. Thus, we expect a baby to wet the bed, but not a six-year-old. We expect the little girl to have a dirty face, but not the 14-year-old lady. And we expect the 10-year-old boy to be constantly scuffling and on the alert with healthy disregard of everybody else and not mooning ambitious adolescent dreams like his teenage brother. But let the child step out of his class and show behavior that is consistently too old or too young for him and you know at once that there exists some manner of behavior disorder, the seriousness of which depends upon the actual number, forms, patterns and persistence of the wrong behavior. The general manifestations of childhood disorders we may list briefly and concisely in special categories with emphasis placed primarily upon those symptoms most likely to lead to serious results.

First of all are those symptoms that relate to *unhealthy attitudes toward the body*—such as finger sucking, nail biting, pulling one's hair, incontinence and faulty elimination habits, over-eating, body fingering and hypochondriacal reactions—all to such a degree as to hamper and handicap the child's general patterns of adjustment. Often these items, however extensive in degree, are looked upon as mere nuisances rather than as indications of serious behavior problems. The child whose finger nails are always bitten to the quick is one who, in achieving this result, has spent a tremendous amount of time, energy and effort that no child can afford to spare from play activities so much more pleasant and educative, and so necessary for normal development. One might summarize by the paraphrase, "All finger nail biting and no play makes Jack not only a dull boy but deprives him of the opportunity to learn many necessary things from normal play."

Likewise, the case of the child who stands about sucking his thumb instead of joining his fellows in games, thereby loses time and opportunities in the matter of development. Similarly, the child who soils and wets his clothes long after the age of infancy, is building up a pattern of behavior that makes him, even from his own point of view, a social outcast and which bars him from ever establishing an adequate control over or developing adequate healthy respect for his own body. In the same way, the bed wetter,

faced each morning with the humiliating, disheartening experience of a wet bed, builds up within himself a distrust and a mistrust of his own physical competence and ability. One need only call to mind a small boy proudly displaying his muscles to realize how important a sense of pride, trust and confidence in one's own body is for a normal healthy outlook upon life.

Another example is the child who runs constantly to the toilet; who seems to spend all of his time and energy in attention upon elimination and who thereby manifests too much concern and interest in bodily processes, properly of only momentary interest to the child. Such narrowing of attention precludes the child from developing more adequate and healthier interests elsewhere. Or again, the child who has recovered from an illness but persists in whimpering and whining and who demands constant babying thereafter is disclosing a serious weakness in his ability to be a normal healthy child, and he needs helpful medical advice and not just an opportunity to outgrow this behavior. The process of outgrowing requires too much time and effort and prevents the acquisition of other lessons in life that must be learned if there is to be mental health. As we look back over the histories of our mentally ill patients, these are the sorts of body attitudes we find in the accounts of their childhood. It is true that all children show these reactions at one time or another, but the normal healthy child is too busy to persist for long in these types of body attitudes. It is only when these habits become persistent and dominant that the child misses many of his opportunities for normal development.

Another type of behavior disorder relates to *general habits*—specifically eating, sleeping and playing. We all know the normal range of behavior for each of these and we recognize their extreme importance in each individual's life. Likewise, we need to recognize and emphasize that any extensive disturbance in any of these habits is also of marked importance in the individual's physical health and life. The child with a healthy body who sleeps too much or too little is building up a most destructive habit that takes away the time or strength necessary for healthy mental growth. The child who persistently overeats, vomits and overeats again, or who under eats is training his body and altering his physiological responses in a most undesirable fashion. The child who plays by himself by choice, or who only looks on without participation, or sits about idly, perhaps futilely wishing there were something he could play, is neglecting his opportunities for the development of initiative and resourcefulness and thereby failing to learn lessons vital to mental health and personality growth.

Another type of early symptomatology centers around social reactions and trends such as withdrawal from the group, lying, disobedience, cruelty, selfishness, stealing and truancy. Particularly do we find significant information bearing upon these items in the histories of our mentally ill patients. A reasonable occurrence of various of these items is essentially normal in each individual's life. In fact, a certain incidence of these forms of misbehavior is almost requisite, if one is to be graduated successfully from the school of experience. But the child who persists in these undesirable or asocial or actually antisocial practices and makes a constant habit of them prolonged over a period of time needs the kindly understanding advice and guidance of the family physician so that he may not grow up to need the services of the psychiatrist.

In these evidences of social maladjustment, not only the type but the number and the variety as well as the degree and extent are of great importance in passing judgment. In brief, they should be regarded with as much concern as is an undiagnosed skin rash, since the social health of the individual is fully as important as the physical health. Particularly does one feel concerned about these types of social failure and maladjustment when it is realized that society reacts in a punitive fashion, with the result that too often the unfortunate child is denied adequate opportunity for normal social development, and thereby is forced to continue in these undesirable patterns of social behavior.

Another and not well realized aspect of this general problem of social maladjustment concerns the failure of the child to be sufficiently aggressive to get into mischief. The child who has not sufficient initiative to get into mischief, who is always a model child, fails to learn from the "school of hard knocks," and hence does not get exposed to the lessons of life necessary for mental well-being. Among our patients here we can demonstrate many who were such model children that they never learned the realities of life. In other words, the diet for social development and health must include a reasonable amount of "roughage".

Now it may seem that we are giving too much attention to childhood behavior problems and it may be well, before proceeding, to emphasize that all the behavior disorders of childhood can be found, perhaps slightly altered in form, perhaps unchanged, in the early youth, in the adolescent and in the adult. In our patients on the ward, from the youngest child to the oldest senile, we can find the same general symptoms at every age level. And so, when the adult comes to your office with an infantile behavior reaction, or a child comes with hypochondriacal complaints more often seen at the involutional period, the physician's problem is essentially the same; that of recognizing and understanding the change in the purposefulness and usefulness of the patient's behavior.

The symptoms of mental disease, particularly in the early forms, concern body attitudes, social reactions and trends, general habits, emotional manifestations and such special spheres of human experience as the sexual, and so the problem of the general practitioner is to recognize these general symptoms early in their course before the development of an actual psychosis has transformed them into delusions and hallucinations and other forms of disorganized and distorted behavior. By learning to recognize and to appreciate childhood behavior disorders, one establishes a foundation upon which to recognize and to appreciate the same symptomatology in older patients in whom the behavior disorder has progressed to the state of an early mental disease. Only the outward form of the manifestation or the words used to describe the complaint may be different. The underlying significances to the individual personality are the same, whether he is a child or an adult, and so, just as men are but children grown taller, so should the general practitioner look upon his adult patients as suffering from all the ills of childhood, including, as symptoms of early mental disease, the childhood behavior disorders. With this special emphasis upon the essential identity of behavior problems and early mental disease, we may continue with the manifestations of unhealthy emotional reactions, such as hates, fears, spite reactions, jealousies, rivalries and temper tantrums.

As in the case of social maladjustments, little needs to be said about the undesirable character of *unhealthy emotional reactions*, particularly if they are so persistent as to make the child forget his play and devote his energies to their manifestation. The child with undue fears, anxieties, phobias and intense rejections of an emotional character is laying an adequate foundation for a future anxiety neurosis, just as the child who indulges in jealous, spiteful, hate reactions to the exclusion of other and normal activities is laying the foundation for a future pathological depression. Similarly, the child who labors daily under a burden of hate, resentment and rivalry is showing early manifestations that need correction before a paranoid reaction develops. One expects of every child adequate manifestations of each of these unpleasant emotional reactions, but also, one does not expect any child to hold too long these intense unpleasant emotional reactions. The rapidity with which children can quarrel and make up is most amazing to adults and the strongest of their intense emotional reactions cannot normally survive the enchantment of a new toy. But the child who constantly sulks or pouts or broods or reacts with innumerable temper tantrums, fails to experience the normal flux of emotions and develops a rigid unyielding emotional pattern that leads progressively to greater troubles.

Now by that statement we do not mean that greater troubles must necessarily and invariably develop, even though the emotionally disturbed child is neglected and mismanaged, but we do mean that those deviations from the normal in children do lead to a greater susceptibility to mental illness. This is emphasized by the case histories of our patients here, which disclose long continued records of early emotional maladjustment. As a crude parallel, we might cite the patient with coronary disease who may live five minutes or 10 years more—one cannot know. But one does know that sudden acute strains upon such a heart may be fatal, though not necessarily so, and such is the case of the child whose emotional development is handicapped and distorted. Sudden acute strains or an intense burden may warp and distort still further to a pathological degree.

Concerning the treatment of these various disorders, we have little to say at this moment, since the primary need, we believe, is to enable the physician to recognize and to understand these problems, so that he can then rely upon his own common sense and wealth of experience in handling human nature.

To proceed now with the problems of the early symptomatology of mental disease after the period of childhood, we need to deal with specific types of mental disorder. The most common of these to be seen by the general practitioner are the neuroses, particularly the anxiety states. The clinical picture of this condition varies with the individual experiential background and the number, variety, character and severity of both the subjective and objective symptoms. In general, however, this neurotic type of patient shows such symptoms as excessive, prolonged and all-absorbing interest and concern over essentially normal body processes and functions, or he may show feelings of fear, uncertainty, worry and anxiety about the functioning of his body and of the possible effects of such simple physical difficulties as headaches, mild infections, perspiration and similar items ordinarily given a minimum of attention. Or the patient may complain of obsessive thoughts, of compulsions, of feelings of unreality and of despair, without being able to

give any understandable justification of his complaint. Or, more frequently, the complaint concerns the loss of energy and interest, and feelings of incapacity and the tendency to restrict in a progressively inclusive fashion all of his activities.

Ordinarily, these patients are essentially healthy, physically speaking, although the existence of any small physical disability is seized upon and exaggerated and used to further their general complaints. The practitioner's task in listening to such complaints is not primarily reassurance of the patient that all is well and that these matters may be forgotten. Rather, his task is to listen to each of these apparently unreasonable complaints and to appreciate the extent to which they interfere with the patient's normal functioning as a useful citizen. He can best evaluate the meaning and significance of all of these complaints by determining the extent to which they disrupt the patient's daily life. When he finds that the patient's symptoms have brought about a marked variation and change in the daily behavior, and that much of the patient's general activity has lost its purposefulness and usefulness, he can then appreciate that a condition exists, which is as worthy of medical attention as any infection that disrupted the patient's daily life to the same degree.

The mere fact that a patient complains bitterly month after month about a weakness in an arm and devotes all waking moments to that complaint, when adequate medical examination discloses no physical basis for the complaint, signifies an illness as real and as destructive to the personality as would be a paralysis of that arm. In brief, the paralysis of hysteria is fully as incapacitating as that deriving from a cerebral hemorrhage and the physician's task is not that of dismissing the patient, but rather of correcting the patient's condition. In other words, regardless of any organic background for a disability, the patient must be judged in terms of his actual ability to function as a useful citizen.

As general experience will teach, we all have a rough idea of how the average adult person should behave and we base our expectations upon our knowledge of that person's past history. When a patient suddenly begins to show behavior that is lacking in purpose and usefulness, that is not in harmony and keeping with what can normally be expected of a person of that age and experience, then there is evidence that the person requires intelligent and capable medical aid.

Concerning the early symptoms of the anxiety states, there probably is little point in mentioning them since the general practitioner has heard innumerable stories about weakness, tiredness, excessive perspiration, headaches, loss of appetite, easy fatigue, pressure on the head, constant worrying, recurrence of obsessive thoughts, tremors, aches and pains, feelings of unreality, expectation of sudden catastrophes and calamities and all of the other symptoms that cannot be found to have any organic background upon careful medical examination. Nevertheless, despite this lack of organic background, these symptoms are real to the patient, and when they interfere seriously with that person's social, economic and personal adjustments, when they cause his behavior to become purposeless and useless, adequate recognition and attention should be given to these complaints, as signifying an illness requiring medical attention, and such attention should be given before the patient's symptoms become so fixed and rigid and uncontrollable that

it requires a specialist to give therapeutic aid, if indeed the specialist is able to do so. Indeed, the general practitioner who is consulted at the early development of these symptoms is in an advantageous position to correct them before they grow to too unwieldy proportions.

However, I would like to mention, as of particular interest, that the general practitioner, in viewing these patients, will recognize in them the child's infantile patterns of behavior and attitudes, so out of keeping and harmony with their years and stature. Their complaints constitute essentially the childhood behavior disorders grown older and larger. When so viewed and understood, there can then be ready realization that any adult whose ordinary daily life is so dominated by infantilisms must necessarily be as much in need of medical attention as is the adult suffering from childhood infections. The neurotic's complaints, however unreal physically, do dominate, limit and restrict normal functioning as much as does actual physical disease. Enabling his patients to meet routine daily obligations is a physician's primary duty, no matter what the nature of the personal disability.

Another general category of mental disease with which the general practitioner comes into contact are the early stages of *manic-depressive psychosis*, particularly the depressive reactions. In regard to these patients, there is little difficulty in realizing that something is definitely wrong with the personality. Rather, the primary problem is the task of appreciating the extent and seriousness of the illness. Thus, in the early manic phase, there is a rush and pressure of activity, usually within the normal range of what may be expected of the person, but there is too much activity, too much enterprise, too little restraint and there is constant extravagance and clash with the environment, with errors of judgment and common sense at every turn. Likewise, there is loss of sleep, neglect of ordinary minor daily duties, and marked increase in emotional responses, either of pleasure or displeasure. The physician who sees the patient who previously has had a long history of a stable, well-ordered daily existence, who suddenly becomes over-active in a progressively disordered fashion, needs to realize at once that such behavior signifies an over-emphasis upon purpose and usefulness that defeats its own ends. His task is to realize the probable outcome of such energetic, misguided, overactive behavior and thus be prepared to protect his patient's interests by seeing to it that the patient's relatives are apprised of the situation and that the patient himself is induced to seek proper medical aid.

The problem in relation to the depressive reactions is not quite so urgent though fully as serious, since there is a tendency for the patient to become depressed over a longer period of time and at a slower rate. A depressive patient shows, particularly, a loss of initiative, of interest and hope; daily duties are neglected, time is idled away, vague feeble complaints are made and the patient is unable to sleep and usually develops physical disorders such as loss of appetite and weight, constipation and menstrual and sexual disorders. These symptoms, however early, seen in a patient who has a long history of industry and well-ordered activity, are suggestive of serious personality disorders. With this recognition, the general practitioner can give heed to the patient's vague and apparently unfounded complaints and, by lending a sympathetic ear, he will be in a

position to uncover in their early form development of delusional and suicidal tendencies. Thus he will be in a position to apprise the relatives of the situation and to provide adequate psychiatric care and protection for the patient.

In both the manic and the depressive reactions, the treatment is essentially that provided by the mental hospital, but the duration of the illness for the patient depends, in many instances, upon the promptness with which the family physician recognizes the warnings and arranges for adequate psychiatric care. And the general recognition of either condition is essentially a matter of viewing the patient's immediate behavior and conduct and judging its purposeful and useful character in terms of what can reasonably be expected of that individual. Behavior markedly out of harmony with a past history of stable industrious activity signifies a change in the personality that requires the critical gaze of someone experienced in human nature.

The last type of mental disorder I wish to discuss is the schizophrenic reaction type, or *dementia praecox*. These 'are the patients so often seen early by the general practitioner and whose difficulty is so easily overlooked because the patients seem to show so little upon which to base any opinion. Yet they are patients who have a decidedly consistent past history of behavior disorders and social and personality maladjustments of a progressively increasing character. These patients are of two general types-the one characterized by more or less passive indifferent behavior and the other characterized by an increasing display of unusual, odd, unexpected, impulsive and finally socially unacceptable behavior.

The patients of the first type tend to be shy, quiet, retiring and unobtrusive in behavior. They hold themselves aloof from realities, they become increasingly withdrawn and disinterested without ever doing anything of a positive character to attract either favorable or unfavorable attention, except in a negative way. These patients are the model children who never do anything wrong and who have never learned the necessary lessons to be derived from the experience of mischievous mistakes and bad judgment. As the years pass, however well these patients may perform their daily routine duties in life, there is a progressive withdrawing from reality, a substitution of daydreaming for activities and the tendency to accept a place in life and in the family more suitable for one much younger. There is a loss of ambition, of interest, a failure in capacity for attention, a dulling or a loss of proper wholehearted emotional responses and there is a progressive need for them to limit and to restrict all of their activities and finally there is a development of frankly psychotic symptoms such as delusions and hallucinations.

The second type comprises those patients who react in a much more positive way; who tend to be anti-social, destructive and impulsive, and highly emotional in an extreme and often offensive way. There is a lack of consideration for others, an incapacity to learn from sad experience, a tendency to repeat an error in adjustment over and over again and there is a development of and a persistence in unreasonably ambitious ideas and hopes and plans. Their emotional attitude is one of disinterest in others, of callous disregard and extreme selfishness. As these tendencies increase and develop there comes about a slow alteration into progressively more psychotic manifestations such as preoccupation,

excitements, confusions, feelings of unreality, depersonalization, and the development of various types of hallucinations and delusions.

As one views the schizophrenic patient and looks over his life history, one is impressed repeatedly by the lack of understandable purposefulness in his behavior, the uselessness of many things that he does and the general tendency toward infantile and childish behavior, which would be suggestive in a small child of a behavior disorder. Hence the practitioner whose patient tends to show markedly childish and infantile behavior, who shows no consistency of readily appreciated purposes in any of his activities, or who shows a purpose that is extremely consistent but not in accord with practical realities, there should be a question in mind as to the existence of early schizophrenia.

Perhaps the best example to give, illustrative of this type of disorder, relates to a young man of good intelligence who, as a child, progressively lost interest in his school work, in his friends, in all of the recreational activities of his neighborhood; who worked well at first under the supervision of his father and other employers but who could not hold a position for long; who showed a progressive loss in his emotional responses care and protection for the patient.

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Perhaps the best example to give, illustrative of this type of disorder, relates to a young man of good intelligence who, as a child, progressively lost interest in his school work, in his friends, in all of the recreational activities of his neighborhood; who worked well at first under the supervision of his father and other employers but who could not hold a position for long; who showed a progressive loss in his emotional responses to the rest of the family and often developed unreasonable prolonged temper tantrums until finally he had antagonized every member of the family. From that point he became increasingly self-absorbed, uninterested in everything, now and then talked about writing a novel, although he had not finished the sixth grade, and about becoming a millionaire. When finally discharged from his position as a janitor for a garage, a job given him by charity, he came home and complained of a pain in his chest. The family physician saw him repeatedly, but the patient discounted the seriousness of his complaints, showed no particular interest in the doctor's visit and no concern about his own general welfare. Periodically over the course of five years, the patient's mother had him examined by the family physician, since the patient constantly planned to go to work as soon as he was rested and the pains in his chest ceased. After five years of idling about the house, daydreaming, never even finishing the reading of a book that was once begun, the family found themselves unable to support him any longer. When admitted to the hospital, more than an hour's time was required to elicit frankly psychotic delusions and hallucinations,

but so far as the general practitioner is concerned, a young man who spends five years idling about the house in such a futile fashion is showing the best of evidence of mental disorder.

To summarize very briefly, then, the problem of recognizing the early symptoms of mental disorder and disease. The general practitioner needs primarily to judge his patient's behavior in terms of what may reasonably be expected of the particular individual, in terms of what is purposeful and useful to the individual and in terms of what behavior is in keeping and harmony with the general established patterns of behavior of the specific person.

In presenting this discussion, I realize that I have emphasized and stressed repeatedly the significance and importance of a great variety of early manifestations of personality disorder and disease. I have not hesitated in placing so much emphasis upon them since the wealth of experience every general practitioner has with human nature will prevent him from developing any alarmist attitudes toward every little thing that may occur. My purpose has been only to point out that apparently simple insignificant changes in the patient's ordinary purposeful behavior can portend as tragic an outcome as can a little insignificant painless lump in the breast. Not every tumor of the breast is cancerous in potentialities, but it is the physician's duty to have that possibility clearly in mind without becoming excited and alarmed. And so it is with the early symptomatology of mental disease. The physician who first sees the patient in the earliest stages should have clearly in mind the possibilities of eventual development, and then, against the background of his own wealth of common sense and experience, he should weigh those symptoms and decide what measures, if any, are necessary for that particular patient.

# Criminality in a Group of Male Psychiatric Patients

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Within the last few years the attention of the public has been directed repeatedly to the commission of crimes by persons who show various recognizable forms of psychopathology, who suffer from definite mental disease, or who have a history of commitment to a mental hospital. The questionable responsibility of such offenders, coupled with the frequently grave character of their offenses, renders the entire social problem represented one of immediate and serious consideration both legally and psychiatrically.

But before this problem can be met adequately either legally or medically, there is need for extensive studies of the frequency and the nature of offenses committed by such medico-legal offenders and of the interrelationships existing between crime on the one hand and definite recognizable forms of psychopathology on the other hand.

In an attempt to approach this problem, a general survey was made of all the case histories of male patients in the current files of the Eloise Hospital on the date of November 1, 1934. The general findings may be summarized briefly as follows:

Total case records reviewed	1,394
Case records with insufficient anamnesis	132
	<hr/>
Total case records included in this study	
	1,262
Patients with history of criminality:	
Definite criminality before recognized onset of mental disorder	119
Definite criminality after onset of mental disorder	148
Crime gravely threatened or unsuccessfully attempted:	
Before onset	7
After onset	<u>49</u>
	<hr/>
	56
Total	<hr/> 323
Patients with history of misdemeanors only	
Patients with history of conviction for felony	24
Patients with history of house-of-correction sentences for misdemeanors	40
	31

The 132 records that lacked sufficient anamnestic data to warrant inclusion in the study were chiefly records of aged patients and transients whose friends and relatives could not be located by the social-service department.

Of the 1,262 patients included in the study, 323, or 25 per cent, had a definite history of criminalistic behavior, ranging from misdemeanors to felonies. This percentage

unquestionably falls short of representing the actual incidence of criminalistic behavior among psychotic patients, for the following reasons:

1. Difficulties inherent in the securing of information often render impossible a complete history of the individual. Frequently, in the nomadic type of patient, a definite criminal history is unknown to relatives and friends, and even to the authorities. In this study, cooperation with the Federal Bureau of Identification, made possible through the routine finger-printing of all admissions to the hospital, was of material assistance in the securing of criminal histories that otherwise would have been unavailable.
2. The routine practice in Michigan, as in many other states, is either to commit directly, or to transfer, to special institutions for the criminal insane all patients with a history of criminality. Hence, the patients in this general mental hospital actually represent a selected group, from which a considerable proportion of criminalistic patients have been removed.

The incidence reported here, therefore, becomes decidedly significant as an indication of the seriousness of some of the problems to be faced in the paroling of patients.

Our findings show also that 119 patients of this group, or 10 per cent of the total group, had actually committed definite crimes before the recognizable onset of their psychosis, and often crimes of a character apparently unrelated to their mental illness, such as embezzlement, swindling, automobile theft, and so forth. In other words, 10 per cent had been crime problems before they became psychiatric problems.

In addition, 148 patients, or approximately 12 per cent of the total group, were found to have committed definite crimes at or after the recognized onset of their mental illness.

Study of the individual case histories, however, indicated that frequently in these cases the offense seemed to be directly related to the existing mental disease—e.g., a homicidal attack motivated by persecutory delusions; hence the problems represented by this group appear to be more psychiatric than criminal. Particularly is this true in regard to suicidal offenses, and the exclusion of this type of behavior reduces the relative size of this group from 12 per cent to 8 per cent. Nevertheless, the fact that 8 per cent of the male patients in a general mental hospital showed definite criminality after the onset of mental disorder constitutes a serious matter for consideration, particularly when the question of parole arises.

Of the 323 patients with criminal histories, 56 were individuals who had gravely threatened or unsuccessfully attempted to commit serious offenses. In this figure are included only those patients in whose cases the attendant circumstances were such that full credence of their threats was warranted. Mere threatening or resentful utterances were disregarded; hence any error in this figure is probably in the direction of understatement.

Only 24 of the patients had a history of crime limited to misdemeanors, for which the penalty was a fine, a reprimand, or a few days in jail.

That 40 of the patients had served time in prison for felony is not in itself remarkable. This figure acquires more significance, however, when it is realized that all these felonies occurred before the recognized onset of the mental disorder, and that these patients were thus serious crime problems before they became psychiatric problems. The same considerations hold true for those patients, 31 in number, who had served time in houses of correction for various types of misdemeanors. Furthermore, a study of individual case histories discloses that the majority of these patients had a history of repeated sentences for both felonies and misdemeanors, over half of the group having served two or more sentences. Briefly, this group of 71 patients, constituting 5 per cent of the total group under study, had established themselves as definite and recognized criminal problems before commitment to a mental hospital had become necessary.

To make possible an evaluation of the various forms of antisocial or criminal behavior represented in one group, the patients were arbitrarily divided into six general categories, as shown in Table 1. Four general types of offense are particularly significant—namely, sexual offenses; homicide, alone or combined with suicidal offenses; physical assault; and miscellaneous felonies. No particular discussion will be attempted of narcotic addiction because of the small number of cases and their essentially psychiatric nature, nor of the minor offenses and misdemeanors because of their relative unimportance as well as low incidence. The question of suicidal behavior also will not be discussed for the reason that it is essentially a psychiatric rather than a legal problem. The table is as follows:

	No. of patients	Percentage of criminal group	Percentage of total group
Sexual offences	66	20.4	5.2
Homicidal and suicidal offenses			
Homicidal alone	84		
Suicidal alone	47		
Homicidal combined with suicidal	18		
	149	46.2	11.8
Physical assaults	50	15.5	3.9
Miscellaneous felonies*	28	8.6	2.3
Narcotic addictions	6	1.8	0.4
Minor offenses or misdemeanors;			
Disorderly conduct and drunkenness	16		
Miscellaneous offenses**	8		
	24	7.4	1.9
Total	323	100.0	25.5

\* Forgery, embezzlement, robbery, and so forth.

\*\* Vagrancy, non-support, and so forth.

It should be explained that in making up this table patients with a varied criminalistic history were classed according to the offense that had the greatest immediate psychiatric significance for this study. This accounts for there being only 28 patients under "miscellaneous felonies," despite the fact that a total of 40 patients had served time for felonies. Also, patients with a history of homicidal offenses or physical assault in

addition to sexual offenses were included only under "sexual offenses," emphasis being placed upon the type of crime that has given rise to the present public interest in the entire problem.

The term "homicidal offense" was used only for offenses in which the actual intent was to kill. In those instances in which it was difficult to decide between a physical assault and a homicidal attack, the offense was classified as a physical assault. In practically every instance, the homicidal offense had been unsuccessful, since for the most part only those patients who had failed in their homicidal attacks had been sent to this hospital.

Again, in the group of suicidal offenses, only those patients who had made definite attempts to kill themselves were included. Mere threats or suicidal gestures were excluded unless study of the individual social-service history warranted full credence of the threat.

The various items in this table will be discussed in detail later. Here we will call attention merely to certain general considerations. First, there is a definite tendency in this group toward offenses directed against persons rather than against property, contrary to the trend among criminals in general. In the average criminal population, offenses against property usually comprise over 60 per cent of all offenses, while sexual offenses and other offenses against persons range from 10 per cent to 15 per cent each. In our group of psychotic criminals sexual crimes comprised 20 per cent of the total, and other offenses against persons, excluding the suicidal group, amounted to 45 per cent. Hence the generalization is warranted that a disposition toward mental disease may be reflected in an increased tendency toward sexual crimes and other crimes against persons.

In all probability, the trend toward these types of offense in the criminal behavior of persons either already mentally ill or disposed toward mental disorder reflects the inherent tendency of such personalities toward simpler and more primitive responses in the meeting of difficult or strongly emotional situations, the incapacity or lessened capacity for self-control in immediate situations of social conflict, and lack of the proper integration of intellectual and emotional responses during periods of mental stress.

Another general consideration concerns the extent of criminality found in this patient population as compared with the general population. Unfortunately, no statistics are available as to the incidence of criminalistic behavior in the general population, but it is a reasonably safe assumption that it would fall definitely short of the incidence in this mental hospital population, a group from which a portion of the criminal element had already been eliminated by legal processes.

In considering possible cause-effect relationships between the mental disorders of these patients and their criminal behavior, an effort has been made to differentiate between offenses committed before and those committed after the onset of the mental disorder. The findings are summarized in Table 2.

TABLE 2—OFFENSES COMMITTED BEFORE AS COMPARED WITH THOSE  
COMMITTED AFTER RECOGNIZED ONSET OF MENTAL DISORDER

	Number of patients	
	Before onset	After onset
Sex offenses	33	33
Homicidal offenses	15	33
Both homicide and suicide attempted	3	9
Physical assault	10	26
Suicidal attempts	0	47
Narcotic addictions	6	0
Miscellaneous felonies	28	0
Misdemeanors only	<u>24</u>	<u>0</u>
Total	119	148

\*The 56 cases in which crime was unsuccessfully attempted or merely gravely threatened are not included in this table.

In compiling this table, the individual case histories were carefully studied, and in every instance of doubt, the patient was classified as manifesting criminality after the onset of his mental disorder. It should be stated further that "time of onset" means not the date of commitment, but rather the time at which relatives and friends became aware of serious personality changes in the patient. Often this time of onset antedated the actual commitment by a year or more. It was believed that from the point of view of our study this time of onset was more significant than the more or less chance date of commitment.

### **CRIMINALITY IN MALE PSYCHIATRIC PATIENTS**

In 119 of our group no direct relationship was apparent between incidence of criminal conduct and time of appearance of mental disease. Nevertheless, it is entirely probable that in many of these cases there was a relationship between a developing or incipient mental-disease process, not yet advanced to the point of being recognized, and antisocial behavior.

In regard to criminality occurring after onset, no definite conclusion can be drawn as to cause-effect relationships, since if the suicidal offenses are excluded, the number of patients who manifested criminal conduct before the onset of the mental disorder actually exceeds those who manifested it after, indicating the probability of a concomitance in individuals of two different social problems. To be sure, in a large proportion of the after-onset cases, the criminality appeared to be directly related to psychotic symptomatology, such as persecutory delusions and hallucinations. But on the other hand it must be remembered that fully as large a group in the population of this study suffered from persecutory delusions and hallucinations without manifesting criminalistic behavior. The assumption seems reasonable, therefore, that criminality among mental patients is not due directly to mental disease itself, but that it is dependent upon other factors in the personality. A further corollary of this assumption, which this study in general indicates as reasonable, is that the personality defects that lead to the development of mental disease may also contribute to criminality.

In considering specific items of Table 2, however, a definite difference is to be noted between the types of offense committed before and those committed after the onset of mental disorders. Offenses committed after onset were all of a type directed against persons, while of those committed before onset only about half were of this character. The probable interpretation is that the onset of mental disorder tends to favor not so much the development of criminalistic trends as the manifestation of those trends in certain types of antisocial behavior.

It is of interest also that the number of sexual offenses was the same before and after onset. Despite the relatively small number of cases involved, this constancy, not apparent in the case of the other offenses, raises the question whether there is any relationship either direct or indirect between mental disorder and sexual delinquency—whether, on the contrary, sexual delinquency does not represent a problem complete in itself, although the existence of a state of mental illness may be conducive to a more frequent manifestation of this offense. We will consider this question further in our discussion of the sexual offenses.

The data on threatened criminality in relation to time of onset are summarized in Table 3.

TABLE 3—OFFENSES THREATENED BEFORE AS COMPARED WITH THOSE THREATENED AFTER ONSET OF MENTAL DISORDER

	Number of patients	
	Before onset	After onset
Threatened homicide	6	30
Threatened homicide and attempted suicide	1	5
Threatened physical assault	0	14
Total	7	49

Though the group is too small to be of much significance statistically, the findings are suggestive of a direct relationship between mental disorder and seriously threatened crime in which the attendant circumstances warranted the giving of full credence to the threat. Two examples may be cited: one a threatened homicide by a man who locked his family in a room, called an undertaker and stated that he was planning to kill them, and was found by the police using an axe to batter down the door which the family had barricaded against him; and the other a threatened physical assault by a man who pursued a young boy down the street in a rage, menacing him with serious physical harm, and who was overpowered with difficulty by the police before he could catch his intended victim. But the validity of this apparent relationship between threatened criminality and mental disorder is open to question since the study revealed an even larger number of patients who had made equally serious threats, but who had never attempted to put them into action and whose threats had never been taken seriously by those to whom they were made. The general conclusion reached was that the apparent relationship between the threatened criminality and mental disorder was in reality only an indication of the release of criminal tendencies as a result of the mental disease—that is, that the onset of mental disorder permitted the manifestation of previously controlled antisocial tendencies and that the mental disorder was not in itself the cause of, but merely the agent in the discovery of, previously existing criminalistic trends. Again the assumption seems to be warranted that the criminalistic mental patient really represents two types of social

problem, the criminal and the psychiatric, and that the psychiatric aspect serves often only as an agent in the disclosure of the criminal aspects. Hence the conclusion seems justified that the disposition of this type of mental patient calls for extreme care and consideration, with serious weight given to the history of criminal behavior.

*Sexual Offenses*—For purposes of comparison, the 66 sexual offenders were divided into those whose sexual offenses involved some manner of actual assault upon another person and those who committed perversions such as bestiality, public masturbation, scopophilia, and homosexuality by mutual consent. There were 41 in the first group and 25 in the second. The 41 were subdivided into those who offended against minors and those who offended against adults. Some of the more significant data with regard to these three groups are presented in tabular form below:

	Against minors		Against adults		Of perversion type	
	Before Onset	After Onset	Before Onset	After Onset	Before Onset	After Onset
Number of patients committing offence	16	11	7	7	10	15
Hospital admissions:						
First admissions	15	9	7	7	10	10
With two or more admissions	1	2	...	...	...	5
Average age in years:						
At time of admission	35	49	35	44	34	40
At time of study	37	52	39	48	37	45
Average years in hospital	2	3	3	4	3	5
With history of imprisonment	5	0	3	0	1	1

We see from this that 27, or 40 per cent, of the 66 sex criminals had offended against minors, 16, or well over half of them, having committed the offense before the onset of the mental disorder. The sex perverts make up roughly another 40 per cent of the group, with 25 cases, in 15 of which, again well over half, the offense had been committed after the onset of the mental disorder and hence would seem to have been directly related to it. Only 14, or about 20 per cent, of the entire group had offended against adults.

Of the 16 who had committed offenses against minors before the recognized onset of the mental disorder, 5, or about one-third, had a history of penal servitude, indicating that their criminalistic tendencies had been recognized, but inadequately dealt with. Of the 7 who offended against adults before the onset of the disorder, 3 had a history of imprisonment. That these numbers are too small to serve as the basis for any general conclusions, is readily admitted, but we believe that they do indicate trends of sufficient significance to warrant serious consideration in the development of social measures for dealing with such patients.

Another trend consistently apparent in this entire group of sex offenders is the lower average admission age of those whose offenses were committed before the onset of the mental disease as compared with those who offended after the onset, the difference averaging ten years. This earlier manifestation of delinquency is suggestive of a greater seriousness in the antisocial tendencies of the younger patient, and of the possibility that

increasing age and the onset of mental disorder released criminalistic tendencies previously controlled in the older patient.

Another interesting aspect of the problem of sexual offenses is the combination of such offenses with other types of criminality. A summary of our findings on this point is given in Table 4.

TABLE 4—OTHER TYPES OF CRIME COMMITTED BY SEX OFFENDERS

	<u>Sexual offenders against minors</u>		<u>Sexual offenders against adults</u>	
	Before onset	After onset	Before onset	After onset
Actual homicidal offenses	5	2	5	1
Threatened homicide	...	1	...	...
Actual physical assault	2	...	1	...
Miscellaneous felonies	7	...	4	...
Total:	14	3	10	1

This table shows that 28 of the 66 patients who had committed sex offenses had a history of other criminal conduct, and that 24 of these, about 36 per cent of the entire group, had shown definite criminality other than sexual before the onset of recognizable mental disorder. In other words, approximately 40 per cent of the sexual offenders had demonstrated criminality in other regards, thereby emphasizing the seriousness of the social problem they represent.

Of further significance is the fact that of the 16 sexual offenders against minors before onset, 14 had offended in other regards. Only 3 of the 11 who had offended sexually against minors after onset had a history of other offenses. Of the 14 offenders against adults, 11 had committed other offenses. It is also of particular interest that of the 25 patients with a history of perversions, none had a history of other types of criminality.

*Homicidal and Suicidal Offenses*—The data on the homicidal and suicidal offenders may be summarized as follows:

	OFFENSES COMMITTED				
	<u>Homicidal</u>		<u>Homicidal with Suicidal</u>		<u>Suicidal</u> All at or after onset
	Before onset	After onset	Before onset	After onset	
Total number of cases	15	33	3	3	47
Hospital admissions:					
First admissions <sup>1</sup>	14	31	2	8	44
With two or more admissions	1	2	1	1	3
Average age in years:					
At time of admission	44	40	55	50	42
At time of study	47	44	57	55	47
With history of imprisonment	5	...	...	...	...
With history of misdemeanors	7	1	1	...	3

	OFFENSES THREATENED			
	Homicidal		Homicidal combined with suicidal	
	Before onset	After onset	Before onset	After onset
Total number of cases	6	30	1	5
Hospital admissions:				
First admissions	5	22	1	5
With two or more admissions	1	8	...	...
Average age in years:				
At time of admission	30	41	52	48
At time of study	31	45	55	51
With history of imprisonment	5	...	...	...
With history of misdemeanor.	1	5	1	1

These data show an increased criminality after the onset of mental disorder. No other significant differences are apparent, with the exception of the high incidence of previous prison sentences and previous misdemeanors in the relatively small group of patients with a history of actual homicidal offenses before the onset of the mental disorder, which indicates some social recognition of the problem represented by these patients. There seems to be some differentiation in the average ages for the various groups, but the relatively small number of cases precludes the placing of any validity on these differences. However, in contrast to the sexual offenders against minors and adults before onset there is a sharp difference in average ages, the sexual offenders being decidedly the younger.

*Physical Assault Offenses*—The data on the offense of physical assault are as follows:

	<i>Actual physical assault</i>		<i>Threatened physical assault</i>
	Before Onset	After Onset	<i>All after onset</i>
Number of cases	10	26	14
Hospital admissions			
First admission	9	23	13
With two or more admissions	1	3	1
Average age in years			
At time of admission	47	38	38
At time of study	51	43	42
With history of imprisonment.	1	..	..
With history of misdemeanor	8	6	2

This offense appears to differ considerably from those previously considered in that the greater incidence occurs after the onset of the mental disorder, and in that the average admission age was less for those who manifested this behavior after onset. However, the relatively small number of cases precludes the drawing of definite conclusions.

*4. Miscellaneous Felonies*—About the 28 patients who committed miscellaneous felonies there is little to be said. All committed the offense before the onset of the mental disorder, and all but two were first admissions. Their average age on admission was thirty-nine years, and their age at the time of the study, forty-two years.

While all of these patients had committed felonies, many of them had been sent directly to the hospital and not to the criminal court. It is worthy of note, however, that of these 28 patients, 12 had actually served one or more terms in prison for previous felonies. One general comment to be made on this group is that their average admission age far exceeds the age of the average criminal offender of this type, and hence that they may represent a different aspect of the crime problem from that represented by the average felon.

*Distribution of Psychiatric Diagnostic Types*—Another question concerning these patients has to do with the distribution of psychiatric diagnostic types among them. This is given below, the distribution for the entire group being included for purposes of comparison:

	<i>Percentage of criminal group</i>	<i>Percentage of entire group</i>
Schizophrenic reaction types	38	41
Alcoholic psychoses	14	12
Manic-depressive psychoses	12	14
General paresis	10	13
Senile and arteriosclerotic psychoses	7	10
Psychoses with mental deficiency	5	2
Psychopathic personalities	3	2
Epilepsy	3	1
Miscellaneous diagnostic groups	<u>8</u> 100	<u>5</u> 100

It is apparent that there are essentially no significant differences between the two groups so far as concerns the frequency of occurrence of any particular psychiatric diagnostic type, and that the general distribution of diagnostic types corresponds fairly well with that of other general mental hospitals. The slight differences may be accounted for wholly on the basis of the relatively small size of the criminalistic group.

In the distribution of psychiatric diagnostic types for the different categories of offense, certain variations in the frequency of diagnostic types were found. These variations only are given here since the general distribution in other respects followed essentially that of the two larger groups:

Of the sexual offenders, 12 per cent had psychoses with mental deficiency as compared with 5 per cent of the criminal group as a whole and 2 per cent of the entire group.

Of the homicidal offenders, 16 per cent had alcoholic psychoses as compared with 14 per cent of the criminal group and 12 per cent of the entire group.

Of the suicidal offenders, 34 per cent had manic-depressive psychoses as compared with 12 per cent of the criminal group and 14 per cent of the entire group.

Of those who combined homicidal with suicidal offenses, 22 per cent were schizophrenic reaction types as compared with 38 per cent of the criminal group and 41 per cent of the entire group; another 22 per cent had manic-depressive psychoses as compared with 12 per cent of the criminal group and 14 per cent of the entire group; and 17 per cent had senile and arteriosclerotic psychoses as compared with 7 per cent of the criminal group and 10 per cent of the entire group.

Of the physical-assault group, 54 per cent were schizophrenic reaction types as compared with 38 per cent of the criminal group and 41 per cent of the entire group.

Of those who committed miscellaneous felonies, 14 per cent had psychoses with mental deficiency as compared with 5 per cent of the criminal group and 2 per cent of the entire group; and 8 per cent had psychopathic personalities as compared with 3 per cent of the criminal group and 2 per cent of the entire group.

Of those who had committed minor offenses and misdemeanors, 34 per cent had alcoholic psychoses as compared with 14 per cent of the criminal group and 12 per cent of the entire group.

No particular comment can be made on these variations other than to say that they are in accord with the general findings in the fields of psychiatry and criminology, and that they possess no special significance for this study.

*General Facts of Hospitalization*—The general data on hospitalization for the various types of offender were briefly as follows

The average percentage of patients with two or more admissions ranged from 10 to 15 in the various groups, with the exception of the homicidal group, in which it was 20 per cent, and the suicidal group, in which it was 2 per cent.

The average age at admission ranged from forty to forty-four except in the case of the sexual offenders who committed their offenses before the onset of the mental disorder, for whom it was thirty-five; the patients who combined homicide with suicide, for whom it was fifty; and the narcotic addicts, for whom it was thirty-five.

The average duration of the period in the hospital was from two to four years, except in the case of the suicidal patients, for whom it was five years.

With the exceptions noted, the findings for each of the various categories of offense were essentially the same. Within the individual groups, as we brought out in discussing them, certain variations in age did occur, but the groups are too small to warrant the drawing of definite conclusions.

One general observation that may be made, however, is that the average age on admission of the criminalistic mental patient far exceeded the average age of twenty to twenty-four years found consistently in the general criminal population. The admission age for the group under study is of course an index rather of the age at the onset of the mental disorder than of the age at the time the crime was committed; nevertheless, it does suggest that the criminality of those predisposed to or actually suffering from mental disease represents a social problem pertaining to a later age level than does criminality in general.

## SUMMARY

1. Of 1,262 patients, the male population of Eloise Hospital, a general mental hospital, 323, or 25 per cent, were found to have a history of criminality, despite the general practice of sending mentally disordered criminals to special institutions for the criminal insane, and despite, further, the difficulties involved in securing complete case histories.
2. A history of definite or actual criminality before the recognizable onset of the mental disorder was found in 119 cases, or 10 per cent of the total population.
3. A history of definite criminality after the onset of the mental disorder was found in 148 cases, or 12 per cent of the total. One-third of these 148, or 47 patients, had committed suicidal offenses, leaving 8 per cent with a history of other criminalistic behavior.
4. Of the 323 criminalistic patients, 56 had a history of having gravely threatened criminal conduct.
5. Only 24 of the group had a history of criminality limited to misdemeanors.
6. In 40 cases a history of prison sentences for felonies was found, and 31 patients had served sentences of varying lengths in houses of correction.
7. Study of the types of offense disclosed a high frequency of sex crimes and of other crimes against persons, the incidence being 20 per cent for the sex crimes and 45 per cent for the others, as compared with 10 to 15 per cent each for the general criminal population.
8. With the exclusion of the suicidal offenses, more crimes were committed before the onset of the mental disorder than after—119 as compared with 101. Of the former, half were directed against persons while all of the latter were directed against persons.
9. The number of sexual crimes committed before and those committed after the onset of mental disease was the same, being 33 in each case.
10. Of these 66 sexual crimes 27 were against minors, 16 having been committed before the onset of mental disease; 25 were in the nature of perversions, 15 having occurred after the onset of mental disorder; 14 were against adults, 7 having been committed before and 7 after the onset of mental disease.
11. Five of the 16 sex offenders against minors before the onset of mental disease, and 3 of the 7 sex offenders against adults before onset had a past history of prison sentences.

12. The average admission age of sex offenders before the onset of the mental disorder was within the fourth decade and was ten years less than that of similar offenders after the onset.
13. Of the sex offenders, 28 had a history of other criminality. None of these were offenders of the perversion type.
14. More of the homicidal, suicidal, and physical-assault offenses had been committed after the onset of mental disorder than before.
15. There was a high frequency of felonies and misdemeanors among the actual homicidal offenders before onset of mental disease.
16. The homicidal and suicidal offenders were on the average ten years older than the sex offenders.
17. Physical-assault offenses had occurred more frequently after the onset of the mental illness, and the average age of these offenders was thirty-eight years, in contrast to an average of forty-seven years for this type of offender before the onset of mental disease.
18. The distributions of psychiatric diagnostic types were essentially the same for the total hospital group and for the criminalistic group.
19. The distribution of psychiatric diagnostic types for the various classes of offenders showed some variations from the general distribution, but they were not of any particular significance from the point of view of this study.
20. The average percentage of patients with two or more mental-hospital admissions ranged from 10 to 15 per cent for the various groups of offenders, with the exception of the homicidal offenders, for whom it was 20 per cent, and the suicidal offenders, for whom it was 2 per cent.
21. The average age for the criminalistic group ranged from forty years to forty-four years for the various categories except in the case of the sexual offenders, whose offenses were committed before the onset of the mental disorder, and the suicidal and narcotic-addiction groups, the average ages of which were respectively thirty-five years, fifty years, and thirty-five years.
22. The average duration of stay in the hospital up to the date of this study ranged from two to four years for the various subgroups with the exception of the suicidal patients, who averaged five years.

Though the various groups included in the study are too small to serve as a basis for general conclusions, the fact that a history of criminality was found in 25 per cent of this selected group, from which a considerable proportion of criminalistic patients had been removed by legal means, indicates the seriousness of the problem of mental disease combined with criminality.

# **Problem of the Definition and the Dynamic Values of Psychiatric Concepts**

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## **GENERAL CONSIDERATIONS**

The growth of dynamic trends in modern clinical psychiatry has resulted in a constantly increasing need for a critical evaluation of accepted psychiatric concepts for the purpose of determining their delimitations, their proper usages, and their correct immediate and remote applications. Many of the most useful concepts of the present time were formulated originally to meet the needs of descriptive psychiatry but have since acquired new meanings through modern clinical developments. Nevertheless, the usages of these concepts and the applications of their corresponding terms have lagged behind the advances in conceptual significances.

Too often a concept has acquired dynamic meanings while its application has remained at a descriptive level. An example of this is the concept of "flight of ideas". Originally, this concept signified merely the rapid utterance of more or less complete ideas, and it possessed only a descriptive value for the immediate behavior of the patient. Now, however, modern clinical psychiatry has accorded it the significance of purposeful though distorted behavior serving definite needs of the personality which are remote from the immediate situation, and has recognized such speech as being characterized by certain types of dynamic associations existing between the individual parts of the stream of ideas. Nevertheless, despite this acquisition of increased meaningfulness, the actual practical usage of the term remains essentially unchanged from its original descriptive status.

In consequence of the addition of new meanings to original significations, there has developed a confusing admixture of dynamic and descriptive values for many psychiatric terms and concepts, rendering impossible a definite, clearly understood account of psychiatric findings without a mass of additional clarifying explanations, and causing the use of the same psychiatric terminology to define widely different but superficially similar manifestations. Thus, critical study of several mental examinations performed by capable psychiatrists on as many different types of psychotic patients will disclose that the symptomatology found in each instance, to judge from the terminology employed, is strikingly similar.

For example, we find that the psychoneurotic patient, the manic-depressive, and the schizophrenic, may all be "mildly depressed". The paranoid and the catatonic patient are both "affectively rigid". The hebephrenic and the simple precox are "apathetic," while the

manic and the excited catatonic are both "overactive" and "overtalkative", and the "agitated" depressive and the "agitated" schizophrenic are both "apprehensive". As these technical phrases are read, their meanings are not to be sought in the terms themselves, despite the fact that each of them possesses definitely both dynamic and descriptive values. Rather, it is the context of the whole description, the sequences of behavior, and the relationships existing between the various manifestations that serve to provide the connotations, the nuances of meaning, and the general complexion of the whole mass of data, which enable the psychiatrist to determine the various dynamic or descriptive imports necessary to formulate an opinion. And such an opinion is generally recognized as being based more on "clinical experience" than on the bare factual or descriptivistic material presented for consideration.

To describe a patient as depressed, ritualistic, over-active, agitated, or apathetic means nothing so far as the understanding of what is meant is concerned, and too often it means little in the actual definition of the manifestation. The depression that occurs in the manic-depressive patient is qualitatively if not quantitatively different from the depression shown by a psychoneurotic, and the depressions shown by both of these are markedly different from that shown in schizophrenia. To describe the manifestation as one of depression is only suggestive until many other considerations have been described in addition. That there is a qualitative difference is readily recognized and it is frequently expressed in some such fashion as follows: "The depression was of a psychoneurotic type rather than of a manic-depressive type." One often hears in psychiatric discussions, of the "psychoneurotic cast" to schizophrenic symptomatology, the "manic characteristics" of the catatonic, the "paranoid coloring" shown by the hebephrenic. In brief, one hears of mixed or combined psychosis, and psychoses with peculiar admixtures of symptoms presumably belonging properly to various other psychoses. That there may be mixed or combined psychoses is possible, but the present development of psychiatric thought does not warrant such an assumption. Rather, it implies the necessity for a more adequate evaluation of psychiatric concepts instead of the predication of more than one type of psychosis in a single patient.

Furthermore, for a psychiatrist to make a diagnosis of mixed manic-depressive psychosis and catatonic dementia precox because the patient shows periods of catatonic stupor, flight of ideas, and overactivity, is questionable in itself since these terms are no more than crudely descriptive and are lacking in definitive values. To describe as a flight of ideas the overtalkativeness of a patient may be correct, but overtalkativeness in itself does not constitute a flight of ideas. Neither is it correct to assume without a clear definition of the concept that a flight of ideas constitutes only a manic characteristic, as is the general practice. To validate this practice, qualitative and quantitative analyses need to be made of the overtalkativeness of the patient suffering from the manic phase of manic-depressive psychosis as well as of the overtalkativeness found in other psychoses.

At present, the definition of a flight of ideas, as culled from a dozen accepted current psychiatric textbooks, may be stated as follows: "A flight of ideas is a disturbance in the thinking processes characterized by increased rapidity in thinking, lack of dominant and goal ideas, increased associations, and susceptibility to chance associations which may be

either external or internal in type, and a rapid succession either in thought or more commonly in speech of superficially related or even of unrelated ideas which may be complete or fragmentary." Such a definition, however, is scarcely more than informative concerning the verbal structure of the manifestation, and permits no determination of the quantitative or qualitative values of its expressiveness for the personality nor any indication of its dynamic significances in application to the individual patient. Yet, in each of the textbooks from which this definition was culled, the concept of flight of ideas is used to signify by connotation certain dynamic factors inherent in the manic-depressive psychosis, and the general clinical significance of this concept is related to the purposive aspects of the disorder.

Yet, at the same time, this concept is used frequently to identify the overtalkativeness of the catatonic patient. However, its usage tends to be somewhat different since it is applied almost entirely to the form of the symptom itself, and does not carry the dynamic connotations characteristic of its use in, manic-depressive psychosis. A recognition of this fact is to be found in the frequently used qualified phrase, "catatonic flight of ideas". That there is any identity between a "manic" and a "catatonic" flight of ideas other than the apparent form or structure of the symptom is as yet a question. The probability is that the general broad use of the concept is as unsound psychiatrically as the use of the concept "fever" was formerly unsound medically. In all likelihood, there is no more fundamental identity in the overtalkativeness of a catatonic patient and that of a manic patient than there exists in the febrile reactions arising respectively from bacterial infection and toxic absorption processes. That the symptom of overtalkativeness serves different though not yet understood purposes in the two psychoses is a matter of general clinical acceptance. Nevertheless, no provision has been made as yet for the evaluation and definition of this concept in any direct relationship to the various psychosis in which it may appear. Furthermore, the use of the concept of flight of ideas should depend not upon the manifestation of a flow of speech, but rather upon differential criteria based upon a critical study of the type, nature, and purpose of the ideas themselves with further differentiation made between internal and external, remote and immediate associations, all in relation to the general state of the patient and his personality.

To illustrate further, no better example can be given than the accepted and accredited use of the word "circumstantial" in describing the stream of talk of the garrulous senile, and of the meticulous, communicative paranoid patient. Yet, even to a neophyte, the circumstantiality of the one resembles in no way the circumstantiality of the other. Nevertheless, the one term is used for both types as well as for other types of such behavior, an any differentiation made must based on an analytic consideration of the data itself, and, in addition, on still other types of data. To say that a patient is circumstantial in his speech adds nothing to an understanding of that patient nor of the symptom itself until additional data are given. At best, such a statement serves only as a point of orientation with any formulation of opinion to be corrected, altered, and redirected with each bit of additional information.

This application of a general and only crudely descriptive term to a specific symptom is strongly reminiscent of those medical days when "fever" was an accepted diagnosis and

regarded and treated as an ailment in itself. No significant medical progress was achieved in relation to the concept of fever until a differential analysis had been made of this symptom in connection with the general state of the patient and the entire descriptive concept had been broken up into a great number of apparently similar but fundamentally different reactions. Despite any absolute identity of graphic records of temperature, the processes represented may be totally different. Likewise "sugar in the urine" constituted a definite diagnosis until therapeutic and diagnostic failures disclosed the necessity for distinguishing glycosuria, lactosuria, and pentosuria. Even then it became apparent that much further analysis of the symptom was necessary to establish a final diagnosis of diabetes mellitus rather than a diagnosis of alimentary or renal glycosuria. In brief, the record of advances made in understanding the symptom of "sugar in the urine" shows clearly the absolute necessity for a qualitative analysis of the symptom in direct relationship to the general underlying condition of the patient. As a result of such analytic study, the term glycosuria now serves to report a laboratory finding while the term "pancreatic glycosuria" constitutes a significant meaningful though general clinical concept of a definite specific application.

Accordingly, psychiatry needs to adopt the analytic attitude of general medicine for the development of definitive significations and for the determination of the uses, applications, and values of psychiatric concepts and descriptive terms. The method by which this may be achieved lies in taking into consideration the dynamic as well as the descriptive aspects of psychotic symptoms. Merely to describe a symptom without indicating in any fashion its dynamic or purposive qualities is entirely inadequate and misleading, as, for example, describing a patient as "assaultive toward nurses," without indicating the dynamic considerations by adding the word "sexually". By the addition of the dynamic consideration to the descriptive term the symptom becomes clearly specific and meaningful. Particularly has the value of dynamic considerations been illustrated by the rapid development of psycho-analysis and the fruitfulness of its contributions to psychiatry in general, enabled entirely by its emphasis and insistence upon the dynamic purposeful aspects of behavior rather than descriptive considerations.

Nor does this require the development of a new terminology but rather the adequate precise usage of the present vocabulary. The means by which such advances in conceptual significances may be achieved are both simple and difficult. Psychotic symptomatology needs to be subjected to a controlled analytic laboratory study to determine the various psychological and psychiatric significances of each symptom. Furthermore, as an initial step in such analysis, longitudinal study, as contrasted to cross-sectional, needs to be made of the psychiatric patient so that each symptom to be analyzed may be observed over a long period of time. The recognition of the fact that a single psychiatric examination, however thorough, is often misleading and inaccurate if not actually false in many essentials, needs to be extended to the recognition of the fact that a psychotic symptom itself, even more often than the patient, requires long continued observation before a reasonably correct general classification of it may be made. Hence, the critical analysis in the psychological laboratory, after extensive longitudinal study of their clinical course of development and manifestation, of hallucinations, delusions, affective disturbances, and all the various psychotic manifestations constitutes a task of

paramount importance in the immediate development of psychiatric knowledge. By such critical study of psychotic symptomatology, one may hope to determine its exact nature and to define the essential elements comprising it, instead of stopping short by classifying it according to some general category. Only by definitive measures may the conceptual values and usages requisite for the clarification of the problems of mental disorders be determined.

### **AS ILLUSTRATED BY A CASE HISTORY**

In the preceding section of this paper the inadequacies and fallacies inherent in purely descriptive material were discussed and emphasis was placed upon the need for dynamic treatment and long-continued observation of psychotic symptomatology. For this section, in illustration of these considerations, the following case history extending over a period of three years is reported in detail because of the clarity with which it portrays the problems involved in the utilization of inadequately defined psychiatric concepts.

#### ***Case History***

The patient in question, a well-developed well-nourished white male about thirty years old, apparently a visitor in the city, was brought to the hospital by the police on an emergency order after arrest for disorderly and erratic conduct. He carried no form of identification, his name and home were never learned, and hence, no social service history could be obtained despite repeated efforts. Physical examination disclosed nothing unusual or of immediate psychiatric significance. Separate mental examinations were made on different occasions by four competent psychiatrists. In addition, the patient was presented before the hospital staff for formal consideration. The diagnostic opinion reached, separately and collectively, was manic-depressive psychosis, hypomanic phase. The mental examinations were essentially identical except in regard to thought content, but the form of this was rigidly constant, and the findings of these examinations may be summarized as follows:

#### **Summary of Mental Examinations**

In attitude and general behavior, the patient was alert, overly energetic, interested, keenly responsive to all forms of external stimuli, extremely animated in action and facial expression, and constantly engaged in a succession of well-coordinated purposeful activities conducted in an excited, exaggerated, hyperactive fashion with a marked pressure of speech and action. His general mood was one of cheerful, over responsive friendliness, with definite elation and euphoria, but he was easily irritated and angered, from which emotional states he would recover with equal suddenness. Occasionally there would be repeated prolonged rages, particularly in the afternoon, with, however, sudden prompt recovery, but these rages always seemed to be in response to external provocation. Self-care was good except for restlessness at night and a tendency to eat too hastily.

His appearance was tidy except for marked decorativeness of a neat precise systematic character. The decorations were comprised of three patches of paper pasted on his forehead above his nose, two patches located distally and laterally to the alae nasi, and neat fringes of dirty string around each button-hole and pocket. Frequently there were cigarette butts thrust into each ear canal. At other times none of these decorations were present, but special examination would disclose, fastened inside the back of his vest, a rosette fashioned from rusty nails, wire, a spoon handle, broom straws, twigs, or other odds and ends, while a similar rosette was hung inside his shirt over his naval.

Additionally, around each large toe was wrapped a strip of toilet paper with the ends free and twisted into small balls, while around the calf of the left leg was a string from which hung a piece of paper roughly cut in the shape of a toad and on which was written the word "toad". Originally, this ornament had been a piece of wire on which was hung the mummified flattened body of a small toad. Around the right leg, above the knee, was a circlet of cardboard and wire to which were attached bright pieces of metal, glass jewelry, and various shiny articles. These last two articles were worn with both the concealed and the visible sets of decorations; if with the visible set, they were kept outside the trousers legs, but otherwise they were concealed. All of these decorations were neatly and carefully made, were readily displayed and much pride was manifested over them.

However, the concealed set was never shown except on special request and urging, and these, unlike the others, were worn only for brief periods and at infrequent intervals while the others were often in evidence for days at a time. In addition to his pride in them, the patient resented intensely any disparagement of his decorations and defended them most passionately if any attempt was made to remove them, raging and fighting if they were taken away, even though he himself might a few moments later lay them aside voluntarily.

His motor activity was essentially one of busy purposeful action in which he endeavored to conduct all of the ward activities or which was devoted to the enactments of various fantasies in which he seemed knowingly to be playing a game. In these activities he depended to a large degree upon his surroundings to support him, marshalling, for example, a group of patients and chairs together to serve as a military drill squad, while the window curtains would be designated as their tents. The various fantasy activities were persisted in at times for several days in succession, but in such a fashion that they served to dominate and to give color and form to all of the various other activities in which he participated. Thus, when engaged in the enactment of military fantasies, in addition to his military drills, all ward work, ward rounds, patients' walks, etc., were supervised by him as if they were part of a military routine. Detailed description of this behavior will be given later.

The stream of mental activity was marked by over productivity, a continuous flow of ideas, marked distractibility, sound associations, rhyming, punning, alliteration, onomatopoeia, witticism, but no other particular disturbances were noted. However, the stream of speech centered entirely around the patient's immediate activities and he was uncommunicative in all other regards. Sample utterances will be given later in the general discussion.

His emotional reactions were those of euphoria and elation with transient periods of intense rage and anger when crossed. He was decidedly egotistical and self-satisfied, keenly interested in all of his surroundings in a rather happy joyous fashion. At times he showed some tendency to become momentarily suspicious if questioned closely about his past history.

His content of thought was restricted almost entirely to immediate stimuli or his activities of the moment which were apparently the enactment of various fantasies. Two of the psychiatrists described his thought content as centering about his conception of everything around him as machinery, the operation of which he was directing. The third psychiatrist in his examination reported the patient as regarding the entire ward life as a drama in the course of production under his direction; while the fourth psychiatrist made note of the patient construing every ward occurrence into a sexual theme. Much of his time was spent in the enactment of various fantasies such as making medical rounds, supervising the ward housekeeping, directing theatrical productions, and drilling soldiers while he kept up a constant stream of talk into which was woven in fairly logical fashion comments on each little event or disturbance occurring on the ward. Thus, while conducting a military drill, he berated soundly the stuporous patient who had not heeded his commands, weaving into his scoldings comments about the examiner's amusement over the failure of obedience, advising the patient to use his ears to hear the nurse answering the telephone and his eyes to see the hole in the trouser seat of a passing patient, continuing indefinitely in this fashion without digressing completely from the original consideration.

Extensive questioning for delusional, hallucinatory and other pathological trends elicited no evidences of such disturbances, and observation of his activities suggested no such abnormal trends, except for the obviously grandiose ideas concerning himself and his immediate activities.

Investigation of the sensorium was most unsatisfactory and continued to be so throughout the entire hospital stay. Items of personal identification and remote memory, elicited with extreme difficulty, were given variously and found to be unreliable. Otherwise, he was correctly oriented, and recent memory, retention and recall were found to be unimpaired, if allowance were made for his distractibility and the difficulty of securing his full attention. Insight seemed to be lacking, although many of his comments indicated an intelligent comprehension of the condition of his fellow patients. Likewise, his judgment seemed to be good in all general matters not pertaining to himself.

In brief, the impression made upon each examiner was that the patient was experiencing an acutely psychotic episode characterized by a feverish flight into the realities, actual and conjured, of the immediate present with an extreme avoidance of everything possible related to his life previous to his hospitalization.

## **DISCUSSION OF SYMPTOMS**

In discussion of these case findings, emphasis will be placed chiefly upon self-decorativeness, the affective disturbances, and the overactivity with its associated over talkativeness, and an effort will be made to illustrate directly the inadequacy of undefined concepts.

### **1. Self-decorativeness**

Ordinarily in relation to the symptom of self-decorativeness, one thinks of the manic patient with ribbons in his hair and buttonholes, the flower in his lapel, the pinchbeck jewelry, and the odd bits of gay plumage scattered over his body. Or one may think of the schizophrenic patient with his erratic, peculiar symbolic types of decorations which are often such unusual character that their ornamental significance is difficult to recognize. But in this patient much more is necessary than a careful description of the decorations. One needs to know more than the fact that the three patches of paper, triangular in shape, pasted on his forehead were taken from stamps and were placed in a triangular pattern. They were always taken from stamps bearing the portrait of Washington, regardless of the color of the stamp, and were always so cut that Washington's features were discernable. Likewise were the circular patches of paper pasted on his face in relation to his nose taken from similar stamps and so cut that again the features of the "Father of His Country" were distinguishable. All other stamps were rejected. No explanation of any sort could be obtained from the patient concerning these dynamic considerations during the months this symptom was present.

Similarly, a mere description of the neat precise string fringes about his buttonholes and pockets is entirely inadequate without the additional information that these fringes were made only from strings torn from the lavatory floor mop. New mops, the ward mop, or pieces of string were never used until after they had been rubbed on the lavatory floor. It was essential, if they were to be used, to wet and soil them by contact with the lavatory floor. With the addition of this dynamic material the entire significance of the fringes changes completely; they cease to be fringes except to the eye of the uninitiated and their entire meaning derives from the dynamic aspects of their manufacture. Hence, to describe the decoration means little or nothing without the inclusion of the dynamics involved. And had it been possible to learn still more of the dynamic aspects, an even more extensive and perhaps different conception of this manifestation could have resulted.

Similar is the situation in regard to the cigarette butts thrust into his ear canals, always butt end first. Fresh cigarettes offered him for that purpose were readily accepted, but before use, had to be lighted, a puff or two of smoke taken, following which they were extinguished and inserted. Occasionally dead matches were used, with the charred end innermost, and fresh matches were first lighted before they could be used.

Obviously, for these decorations, the ornamental effect, despite his seeming pride in displaying them as such, was only secondarily such, and their real significance lay, as far as could be determined, entirely in their dynamics. Hence, any description of them not including the dynamic considerations is misleading and uninformative. It was not the

ornamentation. But the charring of the cigarette and matches, the portrait of Washington and the soiling and wetting of the strings that constituted the primary considerations in his seeming decorativeness.

In regard to the other ornamentations, the fetishistic character is so predominant that little regard can be given to the possibility of intentional ornamentation. Except for the toe ornaments, little could be discovered concerning their dynamic values except that which could be gleaned from the wearing of the leg circlets openly with visible ornaments and secretly with the concealed set, and the rigidity of location and the manner of wearing. In regard to the manufacture of the toe ornaments, however, it was found that only toilet paper could be used. All other kinds of paper were rejected unless first cut into squares and hung in the toilet. Merely taking the paper into the toilet served no purpose: it had to be cut into squares and hung up for use. With this additional information, it becomes apparent that a pure description of the shape, size, appearance, location and construction of the article would be entirely inadequate without the dynamic fact of the original purpose of the paper used.

Not only does the inclusion of the dynamics involved for the various forms of decoration serve to clarify their nature and significance individually, but also they serve to clarify the interrelations of the various manifestations. A purely descriptive account of the string fringes and toe ornaments, aside from the possible general sexual symbolism, would fail to reveal the highly significant interrelationships disclosed by the identity of the dynamic forces entering into their construction. The psychiatrist observing the patient making a fringe from the ward mop, not knowing that it had previously been rubbed over the lavatory floor, or describing toe ornaments made from a newspaper not knowing that that piece of newspaper had been taken from the toilet, could not discover a highly significant direct interrelationship, apparent immediately upon the inclusion of the dynamic considerations.

Nevertheless, essentially the same psychiatric terms would be used in both a dynamic and a descriptive account of the decorativeness. A purely descriptive usage of the term "self-decorative," as shown by the foregoing material, is inadequate, misleading, and uninformative. There needs to be made a critical analytic study of this type of symptomatology and differential values established so that the term can not be applied alike to the hair-ribbon, pinchbeck jewelry decorations of the manic patient, the bizarre adornments of the schizophrenic, and the peculiar but equally ornamental dynamic adornment of the patient reported here.

## **2. "Flight of Ideas" and Overactivity**

Regarding the patient's over talkativeness and over activity, these were described consistently as flight reactions. He was extremely responsive to all external stimuli and these were woven into his stream of talk and action. Witticisms, puns, rhymes, alliterations, clang associations, and onomatopoeia were so frequent as to characterize his speech. He made rounds with the physician, supervised the ward work, gave running accounts of all ward events, organized glee clubs, armies, classes in calisthenics, usually

with a stuporous patient or two and some chairs constituting his army, etc., while he himself both issued and obeyed commands, talking in a continuous stream during all of these activities. However, over a long period of time it was to be noted that the content of his speech was characterized by three types of vocabulary until the ward personnel came to make the comment, "this is Joe's machinery (or sexual or theatrical) week." During the "machinery" periods, ideas related to machinery fitted into almost every response he made to external stimuli. In his comments in making rounds with the physician, this patient's "gears" were "grinding," the nurse walked on roller bearings, a contrivance was suggested and model made of paper and string for throwing back the covers of the beds, his army must march with "machine-like precision" and was divided into the "piston corps", the "rod detachments," the "brake bands," the "cylinder head" and the "spoken radius". The sun shone in "rods" and "beams" to be fitted with "elbow joints" and "vibrators" and supplied with "elbow grease". During a theatrical week, the running commentary in making rounds concerned mien, attitudes, poses, and expressions, and interpretations were placed upon everything that attracted his attention. The army "supposed," "posed," and "reposed" and was divided into the "heavy corps," the "dress parade" and the "ticket detachment," Calisthenics were performed to commands of "disdain," "longing," "fear," "yearning," "glee," "refusal", etc., although during the machinery week the commands were "thrust," "rotate," "spin," "mesh," "wheel," etc. And during the "sexual" week, the running commentary on ward rounds described the patients as "presenting," "invitational," "withdrawal," "drained," "loaded," "hard," "hot." The army was commanded to "present," "charge," "recharge," "shoot," "thrust" "retreat," "assert" "insert" and "resert." Calisthenics were directed by such commands as "erect," "up," "down," "go limp," "wiggle," "squirm," "relax," "sigh," "grasp," "thrust." A paper dropped on the floor was "excited," "quiver," "ashiver," "aflutter," and a ball bounced would elicit an immediate comment such as "beating with anticipation—pashen—en—pay as you enter."

During each of these three general periods the content of the patient's behavior and speech changed constantly but the context or significance and the form were invariably the same. Ward rounds would be transformed into housekeeping and inspection tours, the theatrical troupe became a printer's organization and the army became a school. A catatonic patient or a row of empty chairs was all that was necessary to set the scene while he gave commands and executed them himself. In cross-sectional study, there was no apparent order or rhythm to his behavior and no activity was persisted in for more than a few days at a time. However, upon the longitudinal study made possible by continued observation for many months, it soon became apparent that each period was strictly limited to the one general type of behavior and that the speech and behavior of the "machinery week" never entered into the "sexual" or "theatrical weeks". As months passed it became evident that there was a rigidly regular succession of periods of a stereotyped pattern, masked, however, by his responsiveness to external stimuli.

### **3. Affective Disturbances**

Mention was made in all four of the mental examinations of the patient's tendency to become easily enraged for transient periods, with occasional intense rages of longer

duration but apparently in response to external provocation. Such observations were correct so far as could be determined by cross-sectional studies. Continued observation over a considerable period of time was necessary to disclose a striking peculiarity in his rages, and this finding was made only through the careful study of ward notes. This peculiarity consisted of an absolute regularity and rhythm in the occurrence of his rages. Apparently always in response to an unwelcome request by doctor, nurse, or attendant, interference with his activities by ward personnel or patients, or some untoward event on the ward, nevertheless, it was found that every afternoon between the hours of two and five o'clock three sudden outbursts of intense violent rage would occur, with their form and content apparently determined entirely by the immediate situation which he seemed to be resenting. These would last five to ten minutes and would be spaced by intervals of his normal good-naturedness lasting from fifteen minutes to an hour, with the final outburst succeeded by a return to the general affective state characteristic of his morning behavior. This manifestation occurred regularly for eight months, and developed even when the patient was secluded to prevent the possibility of external provocation. The seclusion itself was utilized as the external provocation.

Furthermore, deliberate experimentation disclosed that an act ordinarily inoffensive to him, would, during the proper hours, precipitate the temper outbursts, but that after the third outburst the act would again become inoffensive and remain so until the proper time the next day.

Accordingly, it is apparent that the external provocation constituted merely a minor part of a stereotyped form of emotional behavior, and the rigid character and form of the emotional disturbance indicates that it was a function of the personality as a whole rather than a function of the personality-response to an immediate situation.

Hence, the essential information concerning these emotional outbursts is not to be found in any detailed description of the behavior itself, but rather in the dynamic considerations of the time of occurrence, the rhythm and the number and interrelationships of the outbursts. To report these rages in purely descriptive terms is to conceal their significance since their form and immediate content were determined by the apparent realities of the situation and hence did not betray their rigidity, stereotypy, and automaticity.

## **CLINICAL COURSE AND DIAGNOSTIC CONSIDERATIONS**

The eventual outcome for this patient is equally significant regarding the actual nature of his mental disease. After about eight months of active, ever-varying but rigidly limited behavior, it was noted that he was becoming increasingly less responsive to external stimuli and correspondingly less active and talkative. At first, a few hours or an occasional day might be spent sitting about in an inert unresponsive fashion. Gradually this type of behavior came to predominate. The wearing of decorations slowly came to be more and more infrequent, and the affective disturbances became increasingly less frequent, although the actual time and number of temper outbursts remained unchanged, until finally the patient had become too apathetic to do more than to sit quietly about the ward.

About a year after his admission vague delusions appeared for the first time and gradually developed into bizarre somatic delusions of cows in his stomach, horses in his knees, absence of viscera, etc. At the same time, vague hallucinations of noises, voices, and images developed slowly but of no particular character of quality so far as could be ascertained since the patient never explained more than to say, "They're talking to me," or, "They're making noises," or "I see things there," as he sat about, apparently listening and watching, smiling in a silly preoccupied fashion. About a year and a half after admission, he presented the typical appearance of the silly, grimacing, untidy, deteriorated hebephrenic praecox, often incoherent and irrelevant but more often unresponsive in speech, apathetic in conduct and behavior, and inaccessible to mental examination. This condition persisted until his death from an intercurrent infection three years after his admission. Although a complete autopsy was performed, the only significant findings obtained were those in relation to acute lobar pneumonia.

Diagnostic discussion of this patient constitutes an exceedingly difficult problem despite the final development of the mental disorder into the classical textbook picture of hebephrenic dementia praecox. Consideration, however, of the symptomatology found in competent cross-sectional study, characterized as it was by an absolute flight from personality situations into immediate realities, by the cyclical recurrence of the psychotic phenomena, and by the textbook manic characteristics of the individual symptoms, serves to confirm the original diagnosis of hypomania. Yet, at the same time, without there having occurred any change in the patient or in the character of his symptomatology, the limitations upon the personality, the absolute restriction to certain forms of self-expression, the peculiar rigidities of the behavior patterns, the stereotypes of thought, action, and affect, the fixed ritualisms of conduct and the peculiar dynamic qualities of the symptoms, discovered only by longitudinal study, suggest a diagnosis of schizophrenia. To assume that there was a mixed manic-schizophrenic psychosis or that the psychosis was manic originally and exhaustion of the personality led to a schizophrenic deterioration serves only to avoid the difficulties involved in the diagnostic problem. In all probability, the essential criterion should be the eventual outcome of the mental condition, with the possibility of an exceedingly sudden acute disorganization of the personality following years of rigidly exercised self-enforced adjustments accounting for the peculiar character of the early psychotic behavior.

## SUMMARY

In brief, while this case report presents a number of interesting problems concerning psychiatric diagnosis and interpretation, the purpose in citing it has been for the illustration it affords of the difficulties entailed in the utilization of a vocabulary, originally developed to meet the needs of descriptivism, now vitiated in its applications by the development of psychodynamic trends. That the psychotic manifestation described by any chosen term or concept remains unchanged is readily admitted and the applicability of the descriptive concept as such is not to be questioned. However, there remains the fact that psychiatric emphasis is now placed not upon the descriptivistic aspects but almost entirely upon the underlying dynamic considerations, and that this

change in emphasis has not been reflected in any modification in the use of the original concept.

Accordingly, there needs to be performed a most difficult task of defining present day psychiatric concepts, determining their limitations, establishing their applications, ascertaining their dynamic connotations and assigning to them new conceptual significances in harmony with the conceptual significances which have been acquired by the phenomena to which they are applied.

One may summarize the entire problem by stating briefly that the further advancement of psychiatry rests upon the task of refining the linguistic tools essential in securing any understanding of psychiatric problems. The whole field of psychotic symptomatology as now generally classified needs to have each item analyzed as an individual problem involving both descriptivistic and dynamic aspects. In brief, by such an analysis, the application of present psychiatric terms and concepts could be brought into harmony with the advances in conceptual significances which have accrued in consequence of dynamic developments.

# **“Arrested” Mental Development**

Milton H. Erickson, M.D.

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The relationship between the mental age and the chronological age, as determined by intelligence tests, is generally presumed to be of a definite and constant character, with any agreement of, or disparity between, the two essentially permanent both in nature and degree. Hence, the conclusion is drawn that, aside from unusual happenings, a state of normal intelligence constitutes a permanent condition and that feeble-mindedness is ordinarily present in a constant degree throughout life.

However, there is a clinical psychometric finding, made with some frequency among children with less than normal intelligence, which is apparently contradictory to this relationship between the chronological age and the mental age, and which is illustrative of the frequent unreliability for diagnostic or classificatory purposes of even valid psychometric findings. This finding is the peculiar condition usually termed “arrested” mental development. It may be generalized to include all intellectual spheres or it may be limited to certain aspects of intellectual growth. It is characterized by a constantly increasing disparity between the mental and the chronological ages resulting from a failure of proper increase in mental age in accord with chronological development, and it is reflected in a constantly decreasing intelligence quotient. Two factors determining the rate and extent of this decrease are the age at which the anomaly in development first appears and its extent, whether complete or partial.

To illustrate these various considerations two clinical case histories are reported, each having a psychometric intelligence test disclosed a mental age of three years, ten months, or an intelligence quotient of 61. A year later she was seen by the same psychometrist who reported an increase in mental age to four years, four months, but a decreased intelligence quotient of 58. Two years later, upon retest by the same examiner, an increase of only eight months in mental age had occurred.

Further retests were made at ages ten and eleven and on these occasions her mental age remained as found on the third test—five years exactly. Thus, apparently, her mental age had remained at a constant level for three years. More than three years elapsed before she was again tested, when an increase of ten months in her mental age was found although her intelligence quotient was now only 40. She was removed from the special grade and committed to the state home for the feeble-minded.

Two years later, at the age of sixteen years, a seventh and final test was administered at which time her mental age was found to have decreased six months and her intelligence quotient to have decreased to 33.

At the present time, at the age of seventeen, she is somewhat undersized and obese but otherwise there are no definite physical abnormalities. Mentally, she is dull and apathetic, childish in her interests, and markedly inactive. She cannot read, write, spell or count, but she is able to feed and to undress herself although she requires assistance in dressing. Medically, the only diagnosis warranted is simply "imbecility".

The following table summarizes her test findings:

### Results of Tests

DATE OF TEST	CHRON AGE	MENTAL AGE	I.Q.	PM*
Oct. 6, 1926	6 yrs. 4 mo.	3 yrs. 10 mo.	61	A
Nov. 7, 1927	7 yrs. 54 mo.	4 yrs. 4 mo.	58	A
Oct. 14, 1929	9 yrs. 4 mo.	5 yrs. 0 mo.	54	A
Aug. 18, 1930	10 yrs. 0 mo.	5 yrs. 0 mo.	50	R
June 20, 1931	11 yrs. 0 mo.	5 yrs. 0 mo.	45	B
Jan. 29, 1935	14 yrs. 7 mo.	5 yrs. 10 mo.	40	C
Apr. 23, 1937	16 yrs. 9 mo.	5 yrs. 4 mo.	33	D

\* PSYCHO-METRIST

### ***Discussion***

Since only two cases are reported, direct discussion, despite the relative frequency of this type of clinical finding, must necessarily be limited. Instead, emphasis may be placed upon the clarity with which these cases illustrate two types of defective development of intelligence, and attention directed to certain general considerations of the problems of feeble-mindedness and psychometry as illustrated by these clinical findings.

Of particular interest, because of the freedom from any discoverable medical complications, is the first case, since the absolute arrest of mental development at a fixed level, permitting a change in intellectual status from normal intelligence to low grade feeble-mindedness, demonstrates that growth or development processes may be fully as important as original endowment in the production of mental deficiency. Whether this type of mental deficiency, because of the period of normal or nearly normal intelligence, differs, in the ultimate, from that type manifestly present from infancy constitutes a question of definite interest needing further investigation. Clinical experience indicates that the "arrested development" type of mental deficiency may be found with the greater frequency among delinquent children, a finding which suggests the increased difficulties of environmental adjustment occasioned by the constantly lowering level of possible adjustment. At all events, differential studies of this type of mental deficiency are warranted as a measure of establishing better classificatory groups among the mentally deficient. Such studies should include a history, beginning at infancy, of repeated psychometric examinations, since, as these two cases demonstrate, a single intelligence test, however valid in itself, may nevertheless be most misleading.

Another consideration of this same problem deals with the well-recognized phenomenon of "range," sometimes termed "scatter," or the failing of tests below and the passing of

tests above the actual mental age level. This occurs commonly in the psychometric examination of subjects of less than normal intelligence, particularly the feeble-minded. Actually, this range frequently constitutes an evidence of "partial arrested development" and serves to demonstrate an irregularity both in the rate and the degree of mental growth for various intellectual spheres, differing from total arrest of development by being less inclusive and less complete.

Whether or not a distinction should be drawn between feeble-mindedness characterized by a wide divergence in the developmental levels of individual abilities and that with little or no range may be as yet an academic question. However, the equating of psychometric findings because of identical intelligence quotients, regardless of range of the individual test scores, constitutes a most unsatisfactory measure in the classification of feeble-mindedness and emphasizes the inadequacy of the psychometric test when applied to conditions other than the normal.

In addition to the cessation or arrest of mental development, there is also the phenomenon, shown in the second case, of continued mental growth but to a degree and at a rate markedly decreased from the normal. Like arrested development, this delayed or retarded mental growth is a relatively frequent clinical finding, of greatest occurrence among "problem" or delinquent children, possibly because of the difficulties entailed for the individual in the continuous shifting of possible adjustment levels. Not infrequently, delayed development may be found limited to certain individual abilities, thus causing the appearance of a significant range in the scores of the individual tests of the psychometric examination. In such instances, particularly of children of less than normal intelligence and past the age of puberty when this delayed development first becomes manifest, the time of actual maturity may be delayed beyond the accepted age of fourteen to sixteen years. Hence, there occurs a continuance of slow growth processes beyond the usual age of maturity permitting a gradual correction of the deficiencies originally causing the range in the psychometric findings. This, in turn, constitutes an improvement of intellectual status that may be sufficient to warrant reclassification in a higher intelligence group.

In children below the age of puberty, the greater period of time that must elapse before maturity can be expected, serves to increase the probability of a delayed development eventuating in an arrested development, thus augmenting the disparity between mental age and chronological age. Hence, as is shown in the two cases cited, the shift in classification is from a higher to a lower intelligence group. Such changes in classification indicate not inaccuracy of previous test results but rather the inadequacy of the entire measure as a diagnostic procedure. They suggest the need for critical study of the peculiarities of mental development illustrated by the second case, and more particularly, the absolute need of repeated and long continued psychometric studies before an adequate understanding of the individual case may be reached.

Finally, mention may be made concerning the actual frequency of occurrence of these clinical conditions. Personal experience, chiefly with orphans and delinquent children, suggests that these conditions are not at all uncommon, but that "delays" and "arrests" of

mental development are most frequent among juvenile delinquents of less than normal intelligence. In the literature mention has been made repeatedly of significant changes in the intelligence quotient after the lapse of a year or more. Usually, however, such studies have been restricted to one or two retests, and have tended to emphasize gains rather than losses, but even so, their findings suggest the desirability of studying anomalies and variations in mental growth and development by repeated psychometric examinations over a long period of years. Particularly do the case histories reported here illustrate the significant values of a long psychometric history.

## **Summary**

Two clinical case reports, each having a psychometric history extending over six years, are cited to illustrate two types of defective development of intelligence. In the first case, illustrative of a complete arrest of mental development, the mental age, first determined at the chronological age of eleven, remained constantly at eight years, ten months with the consequent change in status from *dull normal intelligence* with an intelligence quotient of 80 at eleven years to *low grade moron* with an intelligence quotient of 55 at the age of sixteen.

In the second case, which illustrates partial arrest with retarded development eventuating in a complete cessation of mental growth, there was a change in status from *high grade moron* with an intelligence quotient of 61 at the age of six years to *imbecile* with an intelligence quotient of 33 at the age of sixteen, despite there having been a slow increase of the mental age from three years, ten months at six years to a final mental age of five years, four months.

In discussion, attention is directed to, 1, the need for long-continued psychometric studies to determine the actual clinical frequency of these types of defective development of intelligence; 2, the possible inadequacy and misleading character of valid psychometric findings as a diagnostic or classificatory measure; 3, the general significance of these clinical findings to the problems of differentiation and classification of subnormal intelligence and feeble-mindedness; and 4, the possible significance of these findings to the problems of the growth and development of intelligence, particularly in relationship to the phenomenon of range or scatter.

# **Psychological Factors Involved in the Placement of the Mental Patient on Visit and Family Care**

Milton H. Erickson, M.D.

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One of the primary considerations in the return of the mental patient to normal social life is the proper psychological preparation of the patient himself, of his relatives, and of the community. The failure to provide such preparation accounts in many instances for the short duration and the futility of the visit, the failure of the patient to adjust in the home or in the community, the development in him of increased or of new psychotic difficulties, and the eventual discouragement, through misunderstanding or lack of understanding, of all those concerned in his restoration to normal social life.

The successful extramural placement of a patient, either in the original home or in a foster home, is not the simple procedure of selecting a suitable patient and arranging for his discharge on visit. In addition to dismissing the patient from immediate institutional care, there is the equally, if not the more, important objective of continuing him on visit, of enabling him to adjust himself in the community, and of teaching the community to accept him. A hostile or even an indifferent neighborhood militates against the patient almost as much as do his own difficulties. Accordingly, an absolute prerequisite to the successful placement of the patient on visit consists of a certain preliminary education of the community, leading to the development of social attitudes favorable to the patient, to his difficulties, and to the hospital itself.

For purposes of discussion, the problem of the preparation of the patient and of his relatives for his return to the community may be divided into two approaches. The first of these, which may be termed the *indirect approach*, consists of the development of a socially constructive relationship between the hospital and the community. The second, which may be called the *direct approach*, concerns the relationships of the hospital and its staff with the patient and his relatives as individuals.

For an adequate discussion of the first method of approach, it will be necessary to consider the hospital, its administration, and its possibilities of so functioning that it may influence the development of a favorable attitude on the part of the community toward the return of the mental patient. It is well recognized that the mental hospital reflects to a large degree the levels, the standards, and the attitudes of the community it serves. But since the hospital is an organized unit of the community, it bears a definite burden of responsibility in the formulation of public attitudes concerning mental disease. Too often the mental hospital serves merely as a custodial institution, to which the patient is brought and in which he is kept while his relatives merely visit him, little or no effort being made to acquaint the public with the aims, the purposes, and the potentialities of the institution. Instead, the lack of hope and the feeling of helplessness engendered in the

family by the development of mental disease continue in the attitudes taken toward the hospital, and only the more aggressive of the public ever make the effort necessary to secure an adequate understanding of the entire situation.

At a limited number of state hospitals, in recognition of the need for a concerted effort to educate the public toward the development of a more intelligent understanding of mental disease, and toward increasing the possibilities of placing the patient on visit, a definite effort has been made to draw the public into cooperation with the hospital by informing them of the nature of the institution, its purposes, its goals, and its needs.

The measures used have been various in character. One of the more successful, that which is being employed extensively by the Worcester State Hospital, with which the writer was formerly affiliated, revolves chiefly around a systematic correspondence with the relatives and the friends of the patient. When this measure was initiated, its value was not fully appreciated; but with the passage of time, results have been secured that more than warrant the relatively small amount of effort required. The first of these correspondence measures is the immediate sending of a general informative letter, worded and typed as a personal communication, to the relatives of the newly admitted patient. This letter anticipates many of their questions, informs them officially of the actual situation, makes a formal appointment for them to visit at the hospital and to interview the physician and the social-service worker, and gives them an opportunity to develop a favorable attitude toward the hospital by virtue of the special interest signified by the letter. Innumerable relatives have expressed a feeling of gratitude for this measure of acquainting them with the hospital and enabling them to realize the definite interest taken in the welfare of the patient. Furthermore, this letter serves to impress upon them the fact that their cooperation with and understanding of the hospital are essential. Judged by the remarks of many relatives and friends, this letter has been of material aid in correcting their misapprehensions of mental hospitals as purely custodial institutions.

A development of this systematic correspondence has been the writing of letters periodically to acquaint relatives with the actual condition of the patient, either favorable or unfavorable, to urge the relatives to make visits, and to recommend various measures on their part which would be conducive to the welfare of the patient and to his readjustment in the home. Relatives, friends, and neighbors of the patient have all expressed repeatedly to the writer and to his colleagues their appreciation of these letters, thereby indicating that there has been an effective growth of public confidence in the hospital and of that favorable attitude on the part of the community which is essential to the successful restoration of the patient to normal social life.

Another measure employed by a number of state hospitals with which the writer is acquainted is the yearly examination of each patient in the hospital for the express purpose of determining his suitability for a home visit or for placement in family care. After this examination, a letter is sent to the relatives of each patient who is found to be sufficiently improved to warrant a trial visit at home, informing them of this fact and making a definite appointment for a conference with the psychiatrist to arrange for such a visit.

Also, the relatives and friends of patients who have neglected to visit at the hospital receive letters tactfully insisting upon such visits and making formal appointments as a measure of compulsion, thereby doing away with the idea that the hospital is a custodial institution whose inmates may be permanently forgotten. Even the neighbors of negligent relatives have expressed their appreciation to the writer and to his colleagues for such letters sent to these relatives to compel them to take an active interest in the patient's welfare. On the research service of the Worcester State Hospital a letter-writing routine was established by which the relatives of every patient were periodically counseled and educated as to how they might be of service to the patient, to themselves, and to the purposes of the hospital. With the help of these letters, systematic appointments were made, interviews were conducted, and adequate arrangements were completed for the extramural placement of patients. Through utilization of this correspondence measure, more than one patient who had not had a visitor for years had the interest of his relatives reawakened, with subsequent placement on visit.

Another comparatively recent measure, which is being adopted increasingly by various hospitals, is the printing of an institutional newspaper. This type of publication has been found, in actual practice, to serve the purposes of acquainting the relatives and the general public adequately with the growth and progress of the hospital and with the establishment of improved services, and of giving them a thorough understanding of their own role in the therapy of the patient and in his placement on visit. A frequent experience at these hospitals is the request of friends, relatives, and neighbors of patients' families to be placed on the mailing list of the publication. The hospital newspaper has proved to be a most effective measure in the development of a cooperative spirit with regard to the institutional care and to the extramural placement of the patient, much as the various trade journals serve to promote good will for commercial firms. Furthermore, it is a most effective measure in disseminating educational material, and in correcting the misapprehensions of the public in general regarding the nature and functions of a mental hospital.

Still another method by which a mental hospital can establish a favorable community attitude toward itself and toward its problems is the practice of encouraging the public to visit the hospital and of conducting clinics for the express purpose of giving lay groups a better understanding of mental disease. At Eloise Hospital, with which the writer is now affiliated, this practice of conducting clinics has been particularly developed. The number of clinics held at Eloise for lay groups and organizations averages more than one a week. In addition, a considerable number of public lectures are given by various members of the staff. On these occasions every effort is made to give the public an adequate understanding of what may be accomplished for the welfare of the mental patient, of the problems to be solved, and of the social implications of mental disease. Thus, a foundation is laid for the development of social attitudes favorable to the readjustment of the patient in the community, as well as a better comprehension of the needs and problems of the hospital itself.

To summarize, the *indirect approach* of the hospital to the problem of discharging the patient on visit consists of the development of a proper social attitude in the community toward this problem by various educational measures. These measures are aimed at the promotion of good will toward and of confidence in the hospital, the instruction of friends and relatives of the patient and of the general public concerning the actual nature and purposes of the hospital, the correction of the general misapprehensions concerning mental disease and mental hospitals, and the development of an individual and a community sense of responsibility for the mental patient.

Concerning the second approach, the *direct approach*, to the relatives and to the patient as individuals, one of the first considerations is the actual administration of the hospital in relation to the patient. In the vast majority of hospitals, under the present type of organization, provision is made formally for only two types of patients—the newly admitted and the chronic institutional type. A few hospitals recognize a third category of patients, the convalescent. But usually so weak is this recognition that it fails to permit the effective differentiation achieved for the newly admitted and for the chronic patient. To clarify this point, just as the hospital needs an admission service and a chronic service, so does it need a convalescent service which would be convalescent in actual practice rather than in name only. Likewise, the convalescent service should be provided with a special staff similar to that which is usually provided for the admission service.

An actual convalescent service, with its own special staff, would constitute a significant force in securing a more rapid and a more successful selection of patients for discharge on visit, as has been the experience at those hospitals that have met this need. At present, in too many hospitals, the question of discharge on visit or of extramural placement of the patient is left to the accident of request by relatives or by the patient himself, or to the chance observations of the physician, already burdened with routine duties, in charge of the general wards, or even to the sheer necessity of making room for new patients. Yet every hospital has a sufficient number of convalescent patients to populate fully more than one ward. A physician whose only duties are the care and supervision of such wards can handle this major problem of discharging mental patients in a decidedly more effective manner than is accomplished by the unsystematic procedures now generally in use. The institution of such a measure would serve to centralize and to organize the problem of discharging the patient either on visit or in family care, and to establish within the hospital a definite responsibility for this important function.

In place of a convalescent service, some hospitals have employed various measures of grading or classifying patients. An example is the grading system reported by Erickson and Hoskins.<sup>1</sup> However, such measures are usually only unsatisfactory substitutes for a convalescent service, since the latter functions more effectively in two particular regards. One of these is the psychological effect of such wards, not only upon the patient himself and upon his relatives by virtue of the official recognition of an improvement in his condition, but also upon the hospital staff through the stimulation afforded through realization of specific accomplishment in therapy. The significance of this effect upon the staff in relation to the promotion of psychotherapy cannot be overemphasized. Equally important is the second advantage of a convalescent service provided with a special staff-

that it permits the development of organized, continued, and effective psychotherapeutic measures, as well as the adequate preparation of the patient and of his relatives for his return to the community.

Concerning the actual work with the patient and with his family relevant to their psychological preparation for the return of the patient to his home or for his placement in family care, the measures may be divided into two categories. The first is the systematic interviewing of relatives at regular intervals throughout the entire hospital stay of the patient who has a favorable prognosis, or, more practically, throughout the patient's stay on the convalescent ward. The second is the systematic graduation of the duration of the patient's home visits. The practicability of the first procedure may be questioned; but those hospitals which have instituted a definite convalescent service permitting such intensive work have found the difficulties to be more apparent than real. According to the writer's personal experience, only the first few interviews prove to be difficult and time-consuming. Under proper administration, the services of one physician are fully adequate for a minimum of one hundred patients.

The benefits to be derived from this procedure lie in the opportunities that it presents for the education of the public, for the development of good will and understanding, for the securing of more adequate information permitting better psychotherapy, and for the effecting of gradual changes in the immediate home situation to which the patient must return. All of these advantages serve significantly to increase the number of discharged patients, and, of even greater importance, to prolong the period of normal social adjustment for the individual patient.

Placement on visit should not terminate the series of interviews by the psychiatrist with the patient and with his relatives. Rather, they should be continued at periodic intervals determined by the peculiarities of each case. According to the writer's experience and that of his colleagues, the most effective procedure was found to be interviewing first the relatives, then the patient alone, and finally relatives and patient together. Thus, the general supervision of the patient can be directed, immediate problems evaluated and adjusted, and impending difficulties anticipated. The sense of security thereby engendered both in the patient and in his relatives serves materially to further a normal adjustment of the patient and to meet problems that could not be handled otherwise except by the readmission of the patient to the hospital.

The second type of procedure, the systematic graduation of the lengths of the patient's visits at home, is developed in the following manner: The patient who has convalesced sufficiently to warrant being placed on visit is allowed first to go for a drive or a walk with relatives. Perhaps the next week he is allowed to go home for a day. Next, he is allowed to go home for two or three days, and gradually, depending upon the patient's adjustment to the home situation, the visit is increased from a few days to a week or two weeks or even to a month. Upon each return from a limited visit, extensive interviews are conducted, problems of adjustment are faced, and every effort is made to give both the patient and his relatives insight into their particular situations. Finally, the patient is

dismissed on an "indefinite visit," with instructions to return at stated intervals to report his progress and adjustment according to the previously discussed system of interviews. By virtue of this cautious, systematic graduation of the length of visits, with opportunities to discuss adjustment problems as they arise, and to exercise a direct and continuous supervision over the general home situation and the care of the patient, it becomes possible to send out on visit the patient who had previously been unable to adjust at home, and, by obtaining the confidence and the full cooperation both of the patient and of his relatives, to teach him how to make a good social adjustment. This type of procedure implies a constant, systematic supervision of the patient's daily routine life that can be achieved best on a convalescent ward. Furthermore, such close supervision and intimate contact can serve to exert only favorable influences upon the condition of the patient, which should be the constant aim and purpose of the hospital regardless of the work entailed thereby.

In regard to patients placed in foster homes, an extensive discussion of which has been given by Thompson,<sup>2</sup> the procedure must be slightly different, but the same general psychological principles apply. In the selection of a family-care home, the personalities of the members of the foster family are evaluated in essentially the same fashion as is done in the case of the relatives of patients. A similar evaluation is made of the personalities of the patients already placed in the home. Finally, the type of home is selected with regard for the patient's general cultural level. A detailed discussion of the entire problem of the selection of the family-care home may be found in Crockett's report.<sup>3</sup> Since placement in a foster home renders impractical repeated visits at the hospital for interviews with the psychiatrist, these patients are visited regularly by a social worker, and with equal regularity, but less frequency, by the psychiatrist. In the writer's personal experience, essentially the same procedure in interviewing was followed as with patients visiting at the hospital, with essentially the same results.

Another approach to the successful extramural placement of the mental patient, and one that may supplement, or perhaps to a certain extent be substituted for, the convalescent service, is the establishment of an out-patient clinic—or, more strictly speaking, a parole clinic—as a unit apart from, but integrated with, the hospital itself. Psychologically, the important factor in the separation of the clinic and the hospital into distinct units is the fact that such a separation has the same personal significance for the patient on visit as the convalescent ward has for the institutional patient; it is a form of official recognition that hospital care itself is no longer necessary. Thus the patient is given a feeling of hope, and is thereby stimulated to utilize the facilities of the clinic to the fullest possible extent as a measure of avoiding a readmission to the hospital, which, to his mind, represents a serious personal mishap. The prevalence of this emotional and forceful attitude on the part of the patient will be readily appreciated by any one who has had experience in such clinics.

In actual practice, the patient and his relatives report at the clinic at definite intervals for systematic interviewing and counseling. The realization that this is the official function of the clinic serves to impress upon the patient and upon his relatives the values to be derived from full cooperation. Furthermore, the patient feels more free to seek advice and

counsel on matters for which he would hesitate to disrupt a hospital routine because of their apparently trivial nature. Also, there is not attached to the clinic the same mistaken social stigma that attaches to a mental hospital, a fact that permits a more ready seeking of assistance at the clinic. Already, for example, at the newly established Eloise Hospital Parole Clinic, patients are beginning to express freely their feeling of gratification for the opportunity of receiving further aid from the clinic rather than from the hospital itself, emphasizing this feeling by voicing their sense of personal improvement and achievement in the remark, "I don't have to be a ward patient any more. I'm well enough to go to the clinic now."

Another quotation from patients and relatives may be given to summarize the psychological value of a parole clinic in regard to its specific function in post-institutional care: "Now you can go to the clinic before anything bad happens and get straightened out, instead of trying to get along somehow or other until you have to be sent to the hospital."

In brief, the *direct approach* of the hospital to the problem of discharging the patient on visit depends upon adequate personal attention, given by means of systematic interviews, to the specific problems presented by the individual patient and by his relatives, preferably through the functioning of an adequately organized convalescent service; upon attention given to the community from which the patient comes or to which he goes; upon systematic graduation of the lengths of the trial visits until assurance is obtained that the patient can continue to adjust on visit; and upon the establishment of some system of organized post-institutional care for the continuance of supervision and psychotherapy, preferably by means of a parole clinic.

To summarize the psychological factors involved in the successful extramural placement of the mental patient, they include the establishment of the hospital in an educative role for the instruction of the general public, and of the patient's friends, relatives, and neighbors, concerning the problems of mental disease, and the organization of an effective system for the psychological preparation of the patient for placement on visit, with adequate provision made for post-institutional care to insure the maximum duration and degree of success of the visit by facilitating the patient's adjustment to his situation and to the community and that of the community to him.

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<sup>1</sup> "Grading of Patients in Mental Hospitals as a Therapeutic Measure," by M. H. Erickson, M.D., and R. (3. Hoskins, M. D. *American Journal of Psychiatry*, Vol. 11, July, 1931. pp. 103-109.

<sup>2</sup> "Family Care of the Insane," by C. E. Thompson, M.D. *American Journal of Psychiatry*, Vol. 91, September, 1934. pp. 337-57.

<sup>3</sup> Boarding Homes as a Tool in Social Case-Work with Mental Patients, by H. M. Crockett. *Mental Hygiene*, Vol. 18, April, 1934. pp. 138-204.



# **Opportunities for Psychological Research in Mental Hospitals**

Milton H. Erickson, M.D.

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Within recent years there has occurred in clinical psychiatry a significant change of decided interest to psychologists and to the science of psychology as a whole. This change has been the development of an ever increasing appreciation of the psychological aspects of mental disease with a consequent broadening of psychiatric concepts to include not only somatic and neural pathology, but also disturbances both in psychological functioning and in the interrelationships between psychic and somatic states. The recognition of the psychological aspects of mental disease has been expressed in three trends, developing independently but mutually interactive in modern clinical psychiatry.

## ***Trends in Psychiatry***

The first of these trends to be mentioned is the recognition of the functional unity of the individual, originating from Adolph Meyer's formulation of the concepts of psychobiological totality. The development of these concepts shifted attention from isolated clinical aspects and functions of the individual and directed scientific thought to a consideration of the effects and interrelationships of all the various factors and forces, whether external or internal, physical or mental, social or individual, having an influence direct or indirect upon the personality. Thus, the investigation of psychiatric problems ceased to be simply a matter of clinical or laboratory study of somatic or neural pathology, or a study of isolated dysfunctions of various physiological processes. Instead, psychiatric problems were found also to have an origin in the innumerable interrelationships existing between the psyche and the soma as such, between the individual and the external world and especially between the many varying and conflicting aspects of the personality. With this new direction of thought and the acceptance of these new considerations in mental disease, many of which were predominately psychological in character, the utilization of psychological techniques and methodologies became imperative in psychiatric research.

The second trend equally important and serving to confirm various aspects of the psychobiological formulations was the development of Freud's psychodynamic concepts. These formulations served to stimulate an intense and fruitful interest in the mechanisms and manifestations of psychological processes and to direct attention to the value of intensive longitudinal studies of the entire psychic life of the individual. Thus again interest was directed to the individual as a functioning unit possessed of a meaningful

past, present, and future, rather than to questions of definite and immediate physical or mental pathology. Since this new development in psychiatry dealt primarily with the psychic life of the patient, the approach to the understanding of the many phenomena necessarily became psychological in character.

The third trend, in part independent and in part a consequence of the development of the psychobiological and psychodynamic concepts, has been the gradual recognition of the values of normal psychology in psychiatry. The changes in psychiatric thinking during recent years, the casting aside of outworn concepts and theories, and the present broadening of the concepts of mental disease have given rise to a necessity for precise definition and delimitation of the normal patterns of behavior and for their equally careful differentiation from abnormal types. The studies of Freud and Meyer in particular have caused a constantly increasing interest in behavior reactions, personality types, mental states, emotional attitudes, environmental forces, and functional unity, with the consequence that an understanding of the principles, theories, concepts, methods, and applications of normal psychology has become essential in psychiatry.

The development of these trends in psychiatry has been reflected in the changing character of psychiatric research. Formerly limited almost entirely to descriptive, clinical and laboratory studies, psychiatric research now engrosses the interest of the anthropologist, the sociologist, the biometrician, the physiologist, and the psychologist, as legitimately as it does that of the psychiatrist. Further, it is to be noted that these new fields of psychiatric interest tend to be predominately psychological in character. Even in those fields once considered entirely apart from psychology, such as physiology or endocrinology, the present tendency is to place an increasing emphasis upon their psychological aspects and implications. Perhaps the best evidence of the growth of psychological trends in modern psychiatric research may be found in the report by Whitehorn and Zilboorg (1). They reviewed and classified according to content all papers published during the decade from 1921 to 1930 in the *American Journal of Psychiatry*, *the Archives of Neurology and Psychiatry*, and the *Journal of Nervous and Mental Disease*. They found that during the first half of the decade, a total of 817 pages on psychological studies had been published in contrast to 1622 pages on clinical studies. For the five years from 1926-1930, however, they found that the total of pages on psychological studies had increased to 1923, while those on clinical studies had decreased to 1492. The authors comment further that there has been in addition "a definite and ever growing tendency toward a more intensive study of the individual and a somewhat decreasing regard for purely diagnostic problems." Consideration of the more recent literature confirms this impression. The significance of this growing proportion of psychological studies in psychiatric research is apparent. Not only is the value of psychology recognized but there is a tendency to give it preference over purely clinical work.

Likewise contributing to the possibilities of psychological research in psychiatry has been the gradual shifting of emphasis by psychologists from the purely academic phases of their science to the more clinical and social aspects. Memory, recall, recognition, learning, thinking, reasoning, forgetting, inhibition, sensation, perception, attention—all

once academic considerations—are now acquiring a new significance in relation to social behavior as a whole and to the functioning of the individual as a social unit. This change has been reflected by the growth of emphasis in the psychological literature on personality studies and clinicopsychological investigations and the increasing number of experimental laboratory studies on behavior patterns and personality types.

### **Progress in Psychiatric Research**

Accordingly, the problem now before psychologists as a whole as well as psychiatrists is the important task of utilizing psychology most advantageously in furthering psychological and psychiatric knowledge. Hitherto progress has been made almost entirely by virtue of individual initiative rather than as a result of an organized body of opinion. Nevertheless, as indicated above, that progress has been sufficiently great to alter materially the character of psychiatric research, and in addition, it has served a noteworthy purpose in directing the attention of psychologists to the fruitfulness of research in clinical psychology in contrast to research on purely academic and routine problems.

Since the individual interest and initiative already exist, the immediate task is the development of an organized body of opinion essential for the full sanction and promotion of such individual research. The means by which this may be achieved is relatively simple and easy if the experience of a few centers of psychiatric research may be taken as a criterion. The measure to be employed is simply an establishment of a bona fide affiliation between departments of psychology and available mental hospitals. By bona fide affiliation is meant something more than the usual arrangement which provides for one or two theatrical demonstrations of psychotic types to students. Rather the affiliation should be such that it serves the two significant purposes of giving *direct instruction* and of promoting actual investigative work.

Considering the first of the purposes, that of instruction, there should be developed an arrangement whereby such courses as abnormal psychology, clinical psychology, psychopathology, psychology of personality disturbances, and similar related courses based fundamentally upon clinical material could be taught, at least in part by hospital staff members acting in the capacity of special instructors and lecturers for the particular college. As it is under the present system, these subjects are all too often taught in a classroom with a minimum of clinical material and usually by teachers having at best little more than an academic background. As a consequence, the average psychologist is painfully naive and inadequate and requires special orientation when confronted with actual clinical material concerning which he has been adequately trained academically. Not only would such an arrangement, whether complete or partial, be of value to the student, to the college and to psychology as well as psychiatry, but the hospital and its staff members would also reap material benefits through the raising of professional standards and the promotion of stimulating work and contacts.

In regard to the promotion of actual investigative work, a number of mental hospitals have demonstrated the worth and feasibility of such a venture. One such institution with

which the author is well acquainted, namely, the Worcester State Hospital, has been able to develop a number of significant research projects by virtue of its practice of inviting to the hospital advanced psychology students and research workers in special fields. There, under the auspices of the hospital and in the capacity of "special," "guest," or "volunteer" workers, they engage in research of interest to themselves but pertinent to psychiatry, using the hospital and its facilities as a laboratory and receiving from their particular university scholastic credit if needed for their work.

The results of this practice in the few hospitals where it has been tried warrant its extension. In each instance both the hospital and the particular college concerned have benefited—the hospital by virtue of the credit received in publication, and the stimulation afforded by the development of research work, and the college by having gained entree to a most fertile laboratory, by the production of significant work and by the increased training of its students. Those who have had a part in such affiliations feel strongly that both mental hospitals and psychology departments are losing valuable opportunities if they fail to make affiliations whereby capable students can develop investigative work on a credit basis. Further, such credit recognition secures the official sanction necessary for the development of an organized body of opinion essential to the promotion and development of psychological research in mental hospitals.

### ***Psychological Techniques***

The next consideration arising from the question of psychological research in mental hospitals is the problem of the proper evaluation and adaptation of psychological techniques and the determination of the more suitable types of problems for such specialized study. The changes in psychological and psychiatric thought, the broadening of existing concepts and the formulation of new theories have caused both sciences to place a new emphasis upon the individual as a functioning social unit. In consequence of this emphasis, the scope of investigative work has become more inclusive, and research work has been modified to include at once both psychic and somatic data, with perhaps some isolated aspects of the personality, or selected physiological functions, or some special physical state constituting the point of departure in the analysis of the problems involved. In addition to data of a personal nature, that of an impersonal character is fully as essential in the determination of the factors at work in the individual.

Accordingly, a large part of the investigative work essential to the elucidation and development of many of the modern clinical theories and formulations becomes a question of the analysis of interrelationships between the many types of data derived from environmental, anamnestic, somatic, clinical and psychological studies. Here it is that the psychologist can serve, either independently or in collaboration, in the analysis of the relationships between physical data and psychological data, most particularly in the analysis of the intercorrelations of mental and emotional states and attitudes, psychic experiences, behavior patterns, personality types, and mental activities and processes with physical states and activities, somatic conditions, physiological functions and endocrinological states and processes, and in turn, both jointly and separately, all of the foregoing types of data with the various factors, forces, and influences of special and

general environments. For this type of work the psychologist is adequately qualified and it constitutes an exceedingly fertile field for investigation.

## **Concepts**

Another problem to which the psychologist can contribute significantly is that of the definition of concepts. There is probably no other field of scientific endeavor in which terms and concepts are so ill-defined and so crudely, loosely, and inaccurately used as in psychiatry. Even the official classification of mental disease types is arbitrary and is recognized everywhere as unsatisfactory. In all probability this unfortunate situation arises from the fact that there has never been a systematic approach to the task of defining and delimiting the fundamental concepts upon which classification systems must be based. For example, "depression" is a phenomenon which may occur in paresis, manic-depressive psychoses, schizophrenia, psychoneuroses, and psychoses with brain tumor. In each instance, the term is used as an adequate description of the state manifested despite the fact that to the clinician the "depression" of a schizophrenic patient and that of the psychoneurotic are totally different phenomena, possessing only a superficial resemblance.

Likewise is the case in regard to the "flight of ideas" which may be manifested by a manic patient or a catatonic, the "retardation" shown by depressive patients and those with neurological disease, and the emotional intensity and egocentricity shown by the paranoid patient or the patient suffering from an epileptic psychosis. In each instance these phenomena are described in the same general terms, although clinically they have a different significance, origin, and effect. In brief, the same general terms are used throughout psychiatry to describe innumerable conditions and symptoms which bear only superficial resemblances.

A parallel of this may be found in the history of general medicine. At one time, "fever" was a well-recognized medical concept and patients were treated for that condition. No significant progress was made, however, until the general concept of "fever" had been cast aside and a differential analysis had been made of febrile states. Likewise it is fair to assume that no great progress can be made in psychiatry until the existing usage of terms has been corrected by the careful analysis and differentiation of concepts. To describe a patient as excited or depressed or over-active or retarded means as little as it does to say that a patient is sick or febrile or suffering, and such descriptions will continue to be meaningless until a careful differential analysis has been made of the state such terms supposedly describe.

This task of defining, clarifying and determining the application of the general concepts of psychiatry constitutes a problem well within the realm of psychological analysis and it is a labor essential to much further progress in psychiatry.

Closely related to the task of defining concepts and actually constituting an integral part of it is the problem of evaluating objectively and classifying properly psychiatric symptomatology. To study the general type, frequency of occurrence, and the general

interrelationships of various symptoms means little unless the individual symptoms themselves have been quantitatively and qualitatively analyzed and classified. Thus, the proper study of delusions as such would require as thorough a differential analysis as would the study of anemias. It would require taking into consideration not only the general type, number, content and fixity, but also the individual character, origin, purpose, means of expression, effect on conduct, duration, intensity, degree of coordination with the rest of the psychic life as well as many other features for each delusion concerned in the study. In the whole field of objective evaluation of symptoms little work has been done. One excellent example of the psychological approach to this problem of objectively evaluating psychotic symptoms is to be found in Angyal's study of somatic delusions in which he demonstrates clearly the value of the psychological approach (2). More such work needs to be done in the entire field of symptomatology.

### ***Correlation of Psychological and Psychiatric Concepts***

Still another opportunity for the psychologist lies in the correlation of known psychological laws and concepts with psychiatric concepts. Essentially this is the application of normal psychology to psychiatry in a direct and systematic fashion, a medical parallel of which may be found in the application of the principles of normal histology to pathology. Just as the knowledge of histology constitutes the essential foundation for an understanding of pathology, so may the correlation of known psychological principles with psychiatric hypotheses constitute the means of determining fundamental differentiations, and of establishing the laws and conditions governing the development of abnormal states. To illustrate, the laws and conditions of normal learning have been established to a considerable extent. The application of this knowledge to the learning processes involved in the development of a psychoneurosis might conceivably yield valuable information. In a similar manner, the existing knowledge of the conditioned response could be applied profitably to the investigation of psychiatric problems as is indicated by work already under way in one psychology department affiliated with a mental hospital. Further, a great part of the laboratory and experimental work that has been done satisfactorily on the normal subject needs to be repeated on the abnormal subject and such repetition would serve to advance not only the knowledge of the abnormal but also the knowledge of the normal. To illustrate, the marked accentuation of personality characteristics in mental patients should render easier the task of analyzing the factors determining personality types than would be the case in normal subjects. In brief, all work done on normal subjects needs to be repeated on abnormal subjects because of the advantages offered by the increased or decreased presence of various characteristics permitting thereby a differential analysis of the factors influencing or determining the particular phenomenon under study.

### ***Conclusions***

In conclusion, to discuss all of the opportunities for psychological research in mental hospitals is not possible within the limits of this paper nor is it necessary. A few that have been mentioned indicate the wealth of possibilities in this field for psychologists. The situation may be summarized briefly with the statement that psychologists and

psychology as a whole can offer material assistance in the solution of every psychiatric problem.

## **Summary**

The trends in modern clinical psychiatry are becoming increasingly psychological in character. The development of psychobiological formulation of Meyer and the psychodynamic concepts of Freud has been accompanied by a gradual growth in the recognition of the values of normal psychology in psychiatry. Present trends in psychiatric research show an increasing preference for psychological studies, while psychological research is marked by a growing interest in the more clinical aspects of psychology. These factors favor greatly the development of psychological research in mental hospitals. A measure contributing greatly to such research would be the establishment of affiliations between mental hospitals and psychology departments which would be conducive to active instruction and original investigative work. The utilization of "guest" or "volunteer" research workers would also aid greatly. A few particular problems discussed offering definite opportunities for psychological research were: 1, the analysis of the intercorrelations of environmental, anamnestic, somatic, clinical, and psychological data, 2, the definition of psychiatric concepts; 3, the objective evaluation and classification of symptoms; and 4, the correlation of known psychological laws and concepts with psychiatric concepts.

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# **The Concomitance of Organic and Psychologic Changes during Marked Improvement in Schizophrenia: A Case Analysis**

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This paper embodies a study of concomitant psychic and organic findings in a case of schizophrenia, catatonic reaction type, which progressed from a condition of profound stupor to a state of apparent social recovery. The material is presented to portray the relationships, whether causal, resultant, or merely coincidental, existing between physical and mental states. The case studied is peculiarly fitted for such a portrayal inasmuch as there occurred in the clinical course of his illness three definite psychiatric pictures with each of which was obtained a cross-sectional psychological study extending over a period of a month. This case is the only clear-cut instance of the sort among a total of 63 schizophrenic patients studied by the Research Service, where extensive concomitant studies have been made during the actual periods of clinical change. The method of study was that of the Seven Months' Study Plan.<sup>1</sup> This comprised a social service history, determination of the initial mental and physical states, the clinical course with detailed longitudinal psychiatric study, and periodic physiological cross-sectional studies. The purpose of this method was the study of fluctuations, changes, and constancies, both physical and mental, with regard to temporal relationships—particularly those of concomitance—as a means of determining ultimate sequences. From such an investigation as this, in conjunction with other similar studies, it may be possible to secure the information that will lead to the progressive differentiation of sub-entities in schizophrenia.

The history and the findings on this patient are given below.

The patient, G. F., No. 175, is an unmarried white male of Irish descent, now 24 years of age, who was admitted to the Boston Psychopathic Hospital on May 31, 1931, and discharged to the Worcester State Hospital five days later. The physician's certificate on admission described him as mute, resistive, and depressed.

The *family history*, which is inadequate, reveals a relatively high incidence of cardiovascular disease on both sides of the family. The paternal grandparents died of "shock" and the maternal grandparents died of "heart trouble." The patient's father, aged 65, suffers from nephritis and arteriosclerosis, and is in the Worcester State Hospital with an organic psychosis. The mother, aged 57, complains of "high blood pressure." The patient is the fourth of five children. An older brother died of "bleeding from the lungs" in 1927 and an older sister died of "stomach trouble" in 1928.

The *home situation* has always been on a marginal economic level. The parents complained interminably and indulged in frequent derogatory comparisons of the home situation with that of the original home in Ireland, which they left when the patient was three years old. After the age of 12 the patient had little happy contact with any members of the family except his youngest brother. Incessant quarreling, bickering, and general dissatisfaction constituted the home atmosphere.

The *personal history* of the patient is deficient in many regards. His birth, considered normal in character, occurred February 13, 1908. Childhood development is reported to have been normal until the age of eight or nine, when a period of obstinacy and incorrigibility was noted. This behavior difficulty was associated at least chronologically with "growing pains" in the legs, causing some acute suffering. At about the age of 14 *pavor nocturnus* occurred, characterized by terrifying dreams of being taken away to some unknown place. At about the same time there occurred a period of rapid growth. His educational achievement was "average" until he failed in the first year of high school at the age of 15, when he withdrew to attend night school. There his performance lagged far behind his expressed ambitions.

His *industrial history* indicates good ambition and drive, but poor powers of work adjustment and a tendency to become easily dissatisfied with the work and his fellow-workmen.

The *medical history* reveals attacks of measles and of pertussis at about the age of four or five years, "growing pains" at eight or nine years, and a broken nose from a blow with a baseball bat at the age of 12 or 13. This was followed later by breathing difficulty, supra-orbital headaches, and a nasal discharge. The breathing difficulty and the nasal discharge were relieved by an operation in 1929, but the headaches have continued. At the age of 14 rapid growth occurred, accompanied by a tendency to become easily fatigued and a marked appetite for sweets.

The *psychosexual history* is scanty. The only information obtained concerned a brief caution about "self-abuse" some years ago and limited contact with the opposite sex because of his feeling that he was too handicapped financially for any social activities.

The *present illness* is believed to have become evident first in a change of personality occurring at the age of 12 years. Previously the patient was even-tempered, friendly, active, extraversive, and likeable. He was looked upon as a normal, happy boy. After the age of 12 he became seclusive, fearful of competition, cheated at games, was selfish, obstinate, surly, unfriendly, unhappy, and profoundly dissatisfied with his total situation. At the age of 16 increased irritability was observed and he seemed to have ever-increasing difficulty in adjusting with everybody. He became more and more dissatisfied with his home situation, his ancestry, and the social status of the family, and was imperious and demanding in his attitudes and complaining in behavior. His vanity and conceit became overweening and he expressed inordinate ambitions about becoming a wealthy landowner, a millionaire, a singer, an artist, and a "crooner." Most of his energies were absorbed by these rather grandiose ideas. At the age of 20, in 1928, he

became depressed and discouraged, apparently because of the family's temporary dependence upon charity. In January, 1931, the patient complained greatly of fatigue and headaches, and again became much depressed and discouraged, and "nervous and irritable." He quit work in May because of this condition. On May 17 he was noted as quiet, inactive, and unresponsive. He suddenly declared, "I'm not going to die. I'll live this time." He complained of a strange, overpowering feeling of weakness and sickness. He was taken to the Cambridge Relief Hospital, where he is said to have been accused of masturbation. Following this his speech became halting in character and he stood about rigidly, seemed confused, and finally appeared to lose the ability to speak. He was sent to the Boston Psychopathic Hospital on May 31, 1931. There he explained, "I've been a fool in everything. I thought I was dead. I've done too much for anyone to help me." Mental examination otherwise revealed a mute, apparently depressed, agitated, and pre-occupied patient. On June 4, 1931, he was transferred in an essentially unchanged condition to the Worcester State Hospital with a suggested diagnosis of dementia praecox.

*Physical examination* upon entrance revealed some dehydration, motor retardation, and resistiveness, but otherwise there was no definite evidence of physical disease observed or disclosed by the laboratory procedures.

*Mental examination* shortly after admission revealed him to be practically mute. He told very briefly of hearing voices say unpleasant things and he was found to be disoriented, but otherwise he was inaccessible. He was seclusive in behavior and his appearance suggested mental retardation and depression. A *psychometric examination* was attempted on July 16, 1931. He was mute, dazed, stuporous, and uncooperative, and his performance was unsatisfactory. On the Kent-Shakow Formboards a questionable mental age of five years, four months was obtained, but otherwise results were negligible. Except for an increase in his stuporous state, no marked change in his condition occurred to the date of his admission to the Research Service July 23, 1931.

The *mental examination* made at this time was summarized as follows: "He was untidy, incontinent, and accustomed to stand about mutely for long periods of time in a rigid posture. He required feeding, dressing, and similar care. He was resistive to attempts to move him, and made little or no response to pin pricks or other stimuli. When asked to shake hands he responded by slight pressure with his fingers. He passively permitted movements of his limbs. The muscles of his neck and upper extremities were relaxed while those of the legs were somewhat rigid. His hands were cold and cyanotic. No *cerea flexibilitas* was noted. His facial expression was blank and his eyes were staring in expression. He executed simple commands slowly, showing both initial and executive retardation. No evidence of emotional response was noted or elicited, nor was any interest manifested in his surroundings."

At a diagnostic staff meeting on July 24, 1931 the patient was diagnosed as suffering from *schizophrenia, catatonic reaction type*, and given a *prognosis of social recovery; i.e.*, sufficient recovery to warrant return to the community.

Until August 16 the patient continued essentially as described on July 24. In addition, salivary retention was noted and there was also a slight increase in weight. On August 16, 1931 the first study period of the Seven Months' Plan was begun. No essential change was noted in his mental state during this entire period. He was passively submissive to the tests, mute, untidy, passively seclusive, inactive, and incontinent. He seemed out of contact with his surroundings and was unresponsive to stimuli. He was given a *psychometric examination* on August 17, 1931. He was preoccupied, rather stuporous, and his performance was unsatisfactory and invalid although representative of his mental state. A "performance" test mental age of seven years, six months was obtained. No language tests could be given. On September 8 he was noted to do a little swabbing in a mechanical fashion. He went to the occupational therapy shop upon request where he made some feeble, ineffectual attempts at wood-working. He continued throughout this period to require constant supervision. Essentially no information was elicited or noted regarding his ideational content, since rapport could not be established.

*Physical examination* disclosed a stooped youth, 1806 cm. tall, with disproportionately long arms, somewhat under-nourished. One pupil was found to be oval but otherwise the eyes were normal. The thyroid by palpation showed a slight diffuse enlargement. Reflexes were very much diminished, but equally so. Roentgen ray examination of the head showed asymmetrical sinuses, with the right smaller than the left.

The average oxygen consumption rate (Table I) during this period was 83 percent of the standard normal. The range was 78 percent to 90 percent, with the lowest rate probably the most representative.<sup>2</sup> Systolic and diastolic blood pressures averaged 115 and 84 respectively, with minimal levels of 108 and 74. The pulse rate varied between 54 and 66. The rectal temperature was low, ranging from 96.8° to 97.2° F.

The urine studies (Table II) are difficult to evaluate. The volume for the first period averaged 2750 cc., but the low total nitrogen and the minimal creatinine nitrogen values for the second collection suggest an incompleteness of the sample. Nevertheless the patient showed a urine output double the average volume of our normal controls living in a similar environment, namely, 1328 cc. The urinary findings otherwise were not remarkable except for their variation. The total nitrogen indicated a fairly satisfactory level of protein metabolism.

TABLE I  
OXYGEN CONSUMPTION STUDIES

	First Period 8/20/31	Second Period 11/12/31	Third Period 2/4/32
Oxygen rate	78	Test	94
Blood pressure	108/78	Unsatisfactory	130/78
Pulse	64-64		62-64
Temperature, rectal	97.2		99.0
Respiration	13-14-14		15-16-17
	8/21/31	11/13/31	2/5/32
Oxygen rate	81	75	100
Blood pressure	122/88	108/58	94/40
Pulse	61-58	57-57	58-64
Temperature, rectal	97.2	98.6	98.4
Respiration	15-14-14	12-11-12-12	14-14-14-14
	8/22/31	11/14/31	2/6/32
Oxygen rate	84	84	107
Blood pressure	124/96	94/60	118/76
Pulse	66-62	60-52	63-62
Temperature, rectal	97.0	98.0	99.2
Respiration	18-18-18	11-12-15	16-16-15
	9/1/31	11/24/31	2/16/32
Oxygen rate	90	74	105
Blood pressure	108/74	90/40	112/98
Pulse	54-56	59-58	64-60
Temperature, rectal	96.8	98.0	99.0
Respiration	13-11-12	15-13-12-13	15-13-14

TABLE II  
URINE STUDIES

	First period 8/30/31 9/1/31		Second period. 11/24/31 11/24/31		Third period (catheterized). 2/14/32 2/16/31	
Volume, cc. ....	3960	1550	1360	1670	4360	4695
Total solids, gms./100 cc.....	83	47	35	66	81	111
Total nitrogen, gms./100 cc.....	12.26	6.74	7.23	11-53	11.62	15.58
Urea nitrogen, gms./100 cc.....	10.89	5.83	6.04	9.48	9.81	12.10
Creatinine nitrogen, gms./100 cc.	.53	.28	.33	.57	.67	.67
Residual nitrogen, gms./100 cc..	.41	.38	.39	.79	.65	.90
Specific gravity .....	1.009	1.013	1.011	1.017	1.008	1.010
Indican, colorimetric .....	0	0	0	0	0	0
Urobilinogen, colorimetric .....	0	0	0	0	0	0
Sediment .....	Neg.	Neg.	Neg.	Neg.	Neg.	Neg.

Table III, which includes other physiological studies, reveals in the tabulations under "First Period" the following findings: The galactose tolerance was 20 gm., which, according to Rowe,<sup>3</sup> is at the lower level of normality. Study of the gastro-intestinal tract activity revealed an atonic stomach and a moderately delayed emptying time of 96 hours for the colon. The morphological findings of the blood were normal, as was also the

sedimentation rate, indicating absence of infections or organic destructive processes. The chemical constituents of the blood and the blood gases were all within normal limits, but the fasting blood sugar at 86 mgm. in both of two tests was near the lower limit of normality. Afternoon blood pressure and pulse rate were normal. The patient's weight was 23 per cent below the Metropolitan standards for his height and age. The bromsulphthalein test indicated normal liver function within the limitations of that test. The dynamometer test showed low values, possibly because of lack of cooperation.

The *inter-test* period extended from September 13 to November 7, 1931. During this time slow, gradual improvement was noted in his ward behavior. He seemed to develop a little more contact with his surroundings, to respond more promptly to stimuli, and to stare a little less. This improvement was most noticeable in the last week of the period, when he became more tidy in his personal habits and began replying briefly in faint whispers to questions and looking about him as if somewhat interested. Also, during the second month of the period he began to work a little in the occupational therapy shop, but performed in a mechanical fashion, although during the last week he seemed to show some interest and pride in his work. No additional psychiatric data were obtained.

The *second study period* extended from November 8 to December 5, 1931. At the time of the mental examination during the first week he was noted as markedly improved. There was some spontaneity of speech and he answered a few questions in a whisper, but without giving very much information. He showed more affective response, smiled a little, and seemed pleased at the opportunity of talking to the examiner. He was noted as swabbing on the ward and working in the occupational therapy shop. His urinary and fecal incontinence in large part had disappeared. He showed interest in his surroundings, although he was still somewhat retarded and slow in his movements and he did not participate actively in the ward activities. On November 9 and to a *psychometric examination* was given. Mental ages of 10 years, 4 months and of 13 years, respectively, were secured on the Otis S. A. Intermediate and the "performance" tests. His powers of attention were fairly good and he showed good persistence and some degree of autocriticism. Comprehension was fair, but responses were slow. However, the test results were not considered valid, but were regarded as indicating marked improvement over the previous findings. Throughout the period he was cooperative on test procedures and he became increasingly active and alert, manifesting feeble tendencies to mingle socially with the other patients. His work performance improved and he began assuming responsibility for small tasks, although he was not persistent. He became more interested in wood-carving, but worked slowly and ineffectually at his task. He was oriented correctly and seemed to be in good contact with his surroundings. At times he manifested a considerable amount of insight. There were brief periods of a depressive character noted throughout the study period when he spoke in a low tone and seemed unhappy. His response to family and other visitors indicated fair interest and pleasure.

TABLE III

	<b>First period.</b>	<b>Second period.</b>	<b>Third period.</b>
Mental state	Stuporous	Improved	Approximately recovered
Mental age	7 yrs., 6 mos. (perform.)	10 yrs. 4 mos. (Otis)	16 yrs. 4 mos. (Stanford)
Weight (lbs. and kg.)	129-58.5	135-61.2	149-67.6
Weight (Metropolitan standards)	77%	80%	89%
Dynamometer (lbs.)	40-30	80-80	115-80
Colon emptying time	96 hrs.	24 hrs.	48 hrs.
Rectal temp. (afternoon monthly range)	98.6°-99.8° F.	97.0°-100.2° F.	97.0°-100.0° F.
Blood volume, cc.	(Not determined)	3645	5475
Blood volume (cc. per Kg. of body weight)		62.6	84.2
Blood pressure (afternoon resting)	109/78	132/94	138/84
Pulse (afternoon resting)	60	66	69
Red blood cell count	5,080,000*	4,440,000	4,860,000
	4,670,000	4,080,000	4,560,000
White blood cell count (average of 2)	8570	9750	7220
Hemoglobin (average of 2) gm./100 ml	15	14.7	15.5
Arterial oxygen, vol. per cent	1733	12.83	19.06
Venous oxygen, vol. per cent	12.77	7.23	8.64
Blood pH	(Not determined)	(Not determined)	Art. 7.46-Ven. 7.33
Arterial CO <sub>2</sub> , vol. per cent	5340	55-20	50.62
Venous CO <sub>2</sub> , vol. per cent	5964	61.48	61.35
Blood total -	33	24	33
Non-protein nitrogen, mgm./100 ml			
Blood uric acid	3.7	4.4	4.2
Blood sugar, mgm./100 cc	86-86	118-101	99-91
Bromsulphthalein test	Normal	Normal	Normal
Galactose tolerance test, grams	20	Unsatisfactory	20
Blood sedimentation rate, mm. per minute	0.15	0.00	0.04

\* Probably due to dehydration.

At the beginning of the second period *physical examination* disclosed cyanosis and coldness of the extremities. He was still undernourished but the nutritional index had improved slightly from 77 per cent to 80 per cent of normal.

The oxygen consumption rate, however, had decreased from an average of 83 per cent to one of 77 per cent of normal. The lowest rate of the second series was also lower than that of the first, the respective values being 78 and 74 per cent. The blood pressure had dropped from an average of 115/84 to 97/52. The pulse was also somewhat slower. At the same time the body temperature of the patient showed an increase. The average was 98.2° as compared with the preceding 97.0° F. This apparent contradiction between the increase in the temperature and the lessening of the oxygen consumption rate, blood pressure, and pulse probably means that there was a nearer approach to basality of the test conditions than had been achieved in the first period.

The polyuria previously noted had disappeared, with a normal 24-hour urinary output. However, the first collection appears incomplete, as judged by the creatinine nitrogen value. The urinary constituents otherwise were all within normal ranges.

The red blood cell count dropped to an average of 4,260,000, but the leucocytic and differential counts and the sedimentation rates were normal. The constituents of the blood showed a distinct drop in the total nitrogen from the previous values of 33 mgm. to 24

mgm., the lower limit of normality. The blood uric acid was definitely increased from 3.6 mgm. in the first period to 4.3 mgm. This latter finding was slightly higher than our normal average of 3.9 mgm. The total blood volume was found to be 3645 cc., with a value of 62.6 cc. per kg. of body weight. These findings are definitely low, but the possibility of defective circulation may have precluded accurate findings. The venous oxygen was found to be 7.23 volumes per cent as compared with the text-book normal values of 10 to 18 per cent and the average value of 11 per cent for our own controls living in a similar environment, and the finding of 12.77 volumes per cent for the stuporous state. We have noted similar or even lower values in other cases of schizophrenia. This finding also is suggestive of a sluggish peripheral circulation. The arterial oxygen was also low but the blood gases otherwise were normal. The resting afternoon pulse rate had increased from 60 to 66 and the blood pressure from 109/78 to 132/94. Galactose tolerance was not satisfactorily determined. The results of the bromsulphthalein test were again normal. Readings of the dynamometer test had increased, though they were still below the normal values. Rectal temperature taken on the ward during this period was approximately normal in its range. The colonic stasis had disappeared, with an emptying time of 24 hours as compared with the previous 96 hours.

The *second inter-test period*, extending from December 6, 1931 to January 30, 1932, showed a slow, steady continuance of the patient's improvement, until by the end of January he had apparently reached what appeared to be a complete recovery from his catatonic stupor. The end of the period found him alert, cooperative, in good contact with his surroundings, pleasant and sociable, but rather unwilling to work and interested only in drawing pictures, writing in his diary, composing stories and poems, and working on his autobiography. He was given parole during the first of January and spent his time on parole wandering about the grounds either alone or in company with another patient much younger than himself. He continued his work in the occupational therapy shop, where he exhibited much pride and interest in his work but nevertheless was an irregular attendant. He was considered to work only about half as well as the normal workman. When interviewed he was responsive to approaches but in general tended to be withdrawn and seclusive, and to lapse into states of pre-occupation. He showed much interest in social activities, attending dances and taking part in a minstrel show. He was observed usually to be cheerful, complacent, and good-humored, although occasionally he seemed depressed and spoke about feeling unhappy about his situation. He also gave an account of his ideational content during his stuporous state. He described this stuporous state as a dreamy condition, at which time he had believed himself surrounded by important people in a scientific institution, specifically the Babson Statistical Institute. He told of feeling himself hypnotized and of being fastened to the floor by some strange attraction so that he could not move. He also experienced a thirst that distressed him and compelled him to drink much water, although strange forces and voices tried to make him endure the thirst. He related imagining himself to be a king, a prince, a great man, with a large retinue of serving people, and whenever he looked out of the window he could see pageants of gaiety, all conducted for his benefit. In the ward personnel he identified Einstein, the King of England, the President, all the great men of the age, and he expressed the belief that he had built up a fantasy life in which he could live all the grandiose day-dreams of his prepsychotic period. As time passed he gradually reached

the realization that he was in a hospital, coming to this realization by hearing announcements over the ward radio that the broadcast was coming from Station WSH (Worcester State Hospital.) He also told of some persecutory delusions and of numerous auditory hallucinations. As he narrated these ideas he exhibited an excellent insight, but at the same time he manifested a continuance of his grandiosity about his personal talents and potentialities, and his judgment in relation to himself was considered not to be very discerning. Although he had discarded the fantasies of his stupor state, he entertained the belief that by hard work and earnest application he could acquire a fortune of \$50,000 within the space of a few years. Also, he expressed the belief that the fiction and poetry he was writing would set a new style in American literature, and he was not receptive to criticism in these regards.

The *third study period* extended from January 31 to February 27, 1932. During this time his general conduct continued much the same as it had during the preceding inter-test period. He took a little more part in the social activities, working well in the occupational therapy shop. He was less self-satisfied, superior, and grandiose in his attitude. During the *mental examination* he protested about the repetition of the test procedures and expressed the belief that he was entitled to special privileges. He was unwilling to work and spent much of his time out-of-doors or else drawing and writing, holding himself aloof from all except the better grade of patients. He was friendly with the physicians and psychologists, but not very cooperative with the nurses. He seemed indifferent as to personal appearance. He talked readily and freely but was evasive when questioned closely and seemed distressed by any topic relating to his psychosis. His mood was one of contentment, cheerfulness, and self-confidence, with some boastfulness. Occasionally he manifested some anger and depression, but these were appropriate to the occasions. He reviewed his recollections of the fantasies related to his stupor and seemed to have a good degree of insight. On the whole, the psychiatric findings for this period suggested that the patient had reached his normal pre-institutional level. The *psychometric examination* revealed a Stanford mental age of 16 years, 4 months, with an intelligence quotient rating, on the 14-year basis, of 117. The "performance" mental age was "superior" and the Wells "memory quotient" was 111 per cent. The patient was cooperative, attentive, and comprehended well, and the results of the examination were considered representative and valid. Subsequent examinations have verified this.

Substantially the same findings were made in the *physical examination* of the third study period as in previous periods with the exception that nutrition was improved and that his weight had increased from 80 per cent to 89 per cent of the Metropolitan standards.

Oxygen consumption rates showed a marked increase, ranging from 94 per cent to 107 per cent, with an average of 101 per cent. Basal blood pressure averaged 113 systolic and 65 diastolic, with a range of 94 to 130 and 40 to 78 respectively. The average basal pulse rate was 62, with a range of 58 to 64. The basal rectal temperature ranged from 98.4° to 99.2° F., with an average of 98.9° F. These findings all suggest a normal physiological state.

Catheterized 24-hour urine specimens were obtained for this period. A polyuria exceeding that of the first period and amounting to 4527 cc. was found. The creatinine nitrogen values were both 067 gm.-a high value for his weight of 149 pounds. Otherwise the urinary findings were within normal ranges.

The galactose tolerance was again 20 gm. as in the first period. The secondary anemia noted previously was found to persist but was somewhat less extensive than in the previous period. The rest of the blood morphological picture was again normal. The total blood volume, however, was found to be markedly increased to 5475 cc. as compared with 3645 cc. for the second period. Blood volume per kg. of body weight had increased from 62.6 cc. to 84.2 cc., an increase Of 34.5 per cent. This rise with no significant change in the cell count suggests a marked increase of activity in the hematopoietic system, since otherwise the count would have been reduced by dilution. However, no conclusions are warranted because of the possible unknown factor of defective circulation during the second period. There was a rise in the total nitrogen of the blood to the level of the first period, with blood uric acid remaining at a slightly elevated level Of 4.2 mgm. Venous oxygen was still low but the other blood gases and pH were normal. The liver function, as shown by the bromsulphthalein and McClure tests, was apparently normal. The increased readings for the dynamometer test indicated good strength and cooperation. Colonic emptying time was 48 hours.

From March to November, 1932, the patient's mental state has remained essentially the same as it was at the close of the last study period. He has shown much insight into the nature of his previous delusions and hallucinations but he has tended to continue the grandiosity in his self-evaluation. At first he considered himself superior to work, but gradually consented to do a minimal amount of labor in return for parole privileges. His work performance has been that of a 12- to 14-year-old-boy, and he works only under supervision at simple tasks. Whenever questioned about his ideational content he tends to be evasive, uncommunicative, and to complain that he is not properly appreciated, that he is very sensitive, and that everyone should be careful not to hurt his feelings. He expresses rather grandiose ideas about his abilities and hopes to make a fortune of \$50,000 in the course of two or three years.

During the past few months he has become slightly more communicative, particularly in regard to abnormal mental trends. He admits that he has continued to experience auditory hallucinations more or less continuously since the onset of his psychosis. He tends to look upon them as imaginary and as his own thoughts, but he describes them as voices that give him simple commands, such as to sit down or to stand up. No visual hallucinations are admitted. In general, he has become very well contented with his situation in the hospital and seems satisfied to remain. He associates freely with certain of the better-class patients, but tends to avoid contact with the employees and to assume a haughty and superior air toward them. In brief, he remains at a constant level, and his mental state appears to be essentially the same as that previous to the acute development of psychosis.

Shortly after this paper had been submitted for publication the patient was sent home on an indefinite visit. Six months later he returned for an interview with the examiner. He reported that he had been living on a farm with his brothers where they were clearing cutover land. His nutritional state was good; he was deeply tanned and his hands were thickly calloused. His appearance was neat and he was normally friendly and sociable, and manifested appropriate affective responses. A careful mental examination elicited no psychotic symptoms nor were any noted. The auditory hallucinations formerly so persistent had ceased about five months previously. He summarized a fairly extensive account of his psychotic experiences in the following words

“I guess I just let my wishes and my day-dreams run away with me until I couldn’t control them. I didn’t keep a hold on reality and I was just helpless.”

Regarding his previous grandiosity he declared “Making a big fortune—just a kid idea—what I am aiming at now is working hard, earning a decent living; just keeping happy with my feet on the ground; no more big ideas for me.”

In brief the patient appears to have made and to be continuing a fairly complete social recovery.

## DISCUSSION

The reader will note that no apparent significance has been accorded the first 23 years of the patient’s life. This seeming oversight has been intentional in this paper. The fact is well recognized that his developmental history might account in part or in full for his present condition, but it is not within the scope of this paper.

In summary, during the period of acute stuporous catatonia the patient showed evidence of mental retardation, poor capacity of response in psychiatric and psychometric examinations, and several deviations from organic normality. He was under-weight, had an atonic stomach, moderate colonic stasis, diminished oxygen consumption, reduced body temperature, and a fairly well marked polyuria. His fasting blood sugar and galactose tolerance were at the lower extreme of normality. Blood pH and blood volume were not determined during the first period. Otherwise he seemed to be physiologically normal.

During the second period his psychiatric condition was definitely improved. He was more accessible in psychiatric examination and psychometric test results were notably better, but again the results were largely indeterminate because of lack of good cooperation. In the organic sphere body temperature increased slightly more than a degree, a datum probably indicating a lessening of the hypometabolism which characterized both the first and second periods. The actual oxygen consumption rate as well as the blood pressure and the pulse rate decreased, hence the evidence as regards hypometabolism is thus equivocal unless it is granted that the patient was probably more nearly in a true basal state for the second determinations. The nutritional state improved somewhat

and the colonic stasis disappeared. The urine output was reduced to normal, with a normal composition. A mild secondary anemia became apparent despite an apparently sub-normal blood volume. The venous and arterial oxygen contents of the blood were definitely low. The total nitrogen of the blood dropped from 32 to 24 mgm., a datum which cannot yet be explained. In general, our patients have shown normal blood nitrogen values irrespective of the depth of psychosis.

Further improvement in the clinical picture was noted in the third period. Psychiatrically the patient had attained a level of recovery warranting return to the community. In the sphere of the psychometric examination he was found to have superior intelligence, both on language and performance tests, and the findings were considered valid and representative. In the physiologic sphere the hypometabolism had disappeared and the blood pressure, pulse rate and temperature were in accordance with his normal oxygen consumption rate. On the other hand, the urine volume, determined from catheterized specimens, showed a marked increase, with the only questionable abnormality of the constituents in the creatinine nitrogen values, the significance of which is not known. The blood morphological findings showed even less anemia than in the previous period, but the count was still under the text-book normal. The blood volume per kilogram of body weight showed a marked increase of 34.5 per cent over that of the previous period, with no significant change in cell count. This relative constancy of the cell count suggests either a more accurate blood volume determination as a result of improved circulation or a marked increase of activity in the hematopoietic system. Venous oxygen was still definitely low. The total blood nitrogen had again returned to the normal level of the first period. The nutritional state showed definite improvement which correlated well with the oxygen consumption rate. In other regards the patient's physiologic state appeared to be normal.

In brief, this study has served to exclude a considerable number of physiological functions as significantly correlated with the psychiatric condition, at least in this patient. The constituents of the blood in general have remained within normal ranges throughout, which has been true of the chemical constituents of the urine.

The possible relationship of the pituitary to the psychosis presents an interesting problem. The history of the patient indicates evidence of over-activity of this gland at about the age of 14. As is well recognized among endocrinologists, over-activity is frequently followed by a functional depression as is shown, for example, in the later stages of acromegaly. The rather striking polyuria manifested during the first and third periods supports the idea of a pituitary deficiency, fluctuating in character. However, there was lacking the high blood uric acid and the high galactose tolerance that Rowe<sup>4</sup> includes as characteristic features of the pituitary deficiency. Furthermore, both the polyuria and the blood uric acid were highest in the third period when the patient was least psychotic. These metabolic findings, as a matter of fact, could be ascribed equally well to hypothalamic disturbances. In view of the close functional relationship between the hypothalamus and the pituitary, perhaps the safest assumption would be that both were in a measure physiologically abnormal.

The possibility of pituitary involvement is substantiated further by special Roentgen ray examination made of the patient's head and anthropometric measurements taken in a study conducted by Dr. Hector Mortimer. He discovered an increased thickness of the skull tables, increased size of the frontal sinus and of the maxillary and mental processes, and increased ossification at the skull sutures, but the sella turcica was normal. The anthropometric measurements show disproportionately long upper extremities with a relatively poor development of the torso and of the osseous framework, as may be noted in the accompanying photographs. The sitting height index, however, has a normal value of 0.526. These findings, in conjunction with a history of head trauma, personality changes, sudden rapid growth, and an excessive appetite for carbohydrates at about the age of puberty are suggestive of a period of over-activity of the pituitary.

In conclusion, we have presented the psychiatric, psychologic and physiologic findings over a period of seven months in a case of schizophrenia, catatonic reaction type. Changes and fluctuations have occurred concomitantly in the observations made in each of the three fields. The mental picture shows three definite phases first, stupor; second, a recovery from the stuporous state; and third, a condition of approximate recovery from the psychosis. Concomitant with the study of the mental states there are three physiological cross-sections. Tables of findings show the nature and extent of the measured physical and psychological changes.

For the greater part, the organic data were within the normal range. However, the classification of these laboratory data as normal or abnormal gives rise to a most important question in the study of such physiological data in mental disease, namely, what may be considered "normal"? May it not be that "normal" physiological findings are not normal by virtue of the failure of proper systemic response, an illustration of which is the "normality" of the white blood cell count in certain infectious diseases? May not malfunction in one system occasion a secondary failure in another, or even prevent a proper physiological response to a disturbing factor and thus lead the observer astray by the "normality" of his findings?

The data obtained reveal coincidental deviations in the psychic and physiologic states of the patient and this suggests the possibility of significant correlations between the organic and psychic changes. However, whether this concomitance is causal or resultant or merely coincidental cannot be determined until more studies of this nature have been made. In brief, for an adequate study of dementia praecox careful consideration must be given to an analysis of all inter-relationships, parallelisms and contrasts in the physical and mental data obtained. The method of approach illustrated in this case analysis permits a precise study of the phenomenological nature of dementia praecox or schizophrenia as it is found in the patient as a whole. It affords a comprehensive view and a perspective of the whole problem impossible of attainment by investigations, however intensive, of individual aspects such as thyroid studies on one group of patients, ideational content on another, and blood vascular system on a third. In brief, only by some method of study which allows the simultaneous investigation of many aspects of the disease can a satisfactory approach be made to a determination of temporal sequences and functional interdependence.

## **SUMMARY**

Detailed psychiatric, psychologic and physiologic studies were made for a period of seven months on a patient suffering from schizophrenia, catatonic reaction type.

Three distinct psychiatric states—namely, stupor, recovery from the stupor and a condition of apparent recovery from the psychosis—were found, for each of which a physiological cross-sectional study was made.

During the stuporous state he was under-weight, had diminished oxygen consumption, reduced body temperature, polyuria and delayed colonic emptying time. Other physiological findings were essentially normal.

During the second period he had recovered from the stupor, had gained weight, manifested a slight, equivocal decrease in his oxygen consumption rate, a slight increase in body temperature, mild secondary anemia, a questionable low blood volume and low venous and arterial oxygen content. Other findings were within normal ranges.

During the third period the patient appeared to have reached the level of his pre-institutional mental state, had gained weight and manifested a normal oxygen consumption rate, with normal body temperature. Except for a marked polyuria and low venous oxygen content, the physical data showed no apparently significant deviation from the normal.

There is evidence suggestive of a pituitary over-activity manifested at about puberty, according to the history, and followed by evidence of deficiency during the periods of study. However, the fluctuations noted could likewise be attributed to an abnormal functioning of the hypothalamus.

In brief, coincidental with the changes in the psychiatric and psychological spheres, there have been corresponding or opposite fluctuations and variations in the organic sphere. Also, in some instances, an apparent independence has been indicated by physiologic constancy. Accordingly, when more studies of this nature have been made, an answer to the question of functional interdependence may be achieved.

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<sup>1</sup> Hoskins, R.G., *et al.*: A Cooperative Research in Schizophrenia. Arch Neurol. And Psychiat. 30:388, 1933.

<sup>2</sup> Hoskins, R G., and Walsh, Anna: Oxygen Consumption ("Basal Metabolic") Rate in Schizophrenia. Arch. Neurol. and Psychiat., 28: 1346-1364. December, 1932.

<sup>3</sup> Rowe, A. W.: The Metabolism of Galactose. I. The Threshold of Tolerance in Normal Adults. Arch. Int. Med., 34:388-401, 1924.

<sup>4</sup> Rowe, A. W.: Studies of the Endocrine Glands. II. The Pituitary Endocrinology, 12:245-322, 1928.

## **Cooperative Research in Schizophrenia**

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Despite the fact that schizophrenia has been known under one or another name for centuries, the nature of the disorder even at the descriptive level remains in no small measure yet to be determined. It is true that there is a voluminous literature describing the multifarious deviations from psychologic normality and no small number of publications dealing with organic variations. But the question is still open as to which of the deviations are essentially characteristic of the psychosis. In the picture as presented by the patient we have to deal with pathologic phenomena of several different categories. The abnormalities may comprise the effects of bad hygiene, the effects of habituation, the effects arising primarily out of the fundamental cause or causes of the disorder and the defects arising from secondary operations of the primary causal factors. The need remains for an adequate definition of the psychosis. This definition should, of course, delimit it from all other disorders; it should be broad enough to include all of the subvarieties; it should include none but characteristic attributes.

The literature on schizophrenia as now available, while profuse in qualitative material, is defective in its content of accurate quantitative information. But an even more significant defect is the lack of homogeneity of the data as they exist.

These data have been obtained by many investigators using different techniques on a variety of patients living under dissimilar environmental conditions. They are of correspondingly limited utility for the purpose even of formulating a technically satisfactory definition. In large part they are entirely unusable for the type of studies of correlation that is needed for the analysis of the problem as a problem. There is need, then, for the collection of an extensive body of descriptive data on a fairly large number of patients studied under uniform conditions. This topic has been discussed at greater length in another communication.<sup>1</sup>

While it is true, as has been emphasized elsewhere, that the mere enumeration of traits is a research method of strictly limited utility, it is likewise true that attempts to carry out research on a problem that has not been accurately set are likely to result in numerous ineptitudes.

Even at the descriptive level, certain substantial accomplishments can be hoped for. At this level can be studied the question as to whether schizophrenia represents a disease entity or whether, like fever or headache, it represents a variety of essentially different disorders. The detection of disease entities has not infrequently been accomplished at this

level. For example, myxedema was so discovered. In principle, this sort of discovery amounts to the detection of consistent syndromes.

Schizophrenia may well represent a variety of syndromes. Given a sufficient body of homogeneous data, such syndromes should be detectable by the use of systematic statistical methods. The detection of a syndrome, however, does not in itself afford any evidence of causality. To continue the previous illustration, the mere fact that deficiency of the thyroid gland was discovered as a characteristic concomitant of myxedema served merely to delimit the problem of causality. The causal relationship of the defect of the thyroid gland to the disorder had to be proved experimentally. This was done in two ways. Surgical removal of this gland for goiter was shown to be followed by myxedema, and the symptoms of myxedema were shown to be ameliorated by the administration of thyroid substance.

In the case of schizophrenia the approach to the problem of causation will presumably necessitate three steps. The accumulated data must be tested, as indicated, for the existence of characteristic syndromes. The items making up the syndromes may stand in casual, consequential or concomitant relationships to each other. The next step is to test empirically for consistency of concomitance. It must be determined which features of the syndrome vary *pari passu* with changes in the clinical condition of the patient. In principle, this method serves to differentiate the essential from the fortuitous elements in the picture. Finally, among those features that vary in step with the clinical condition, causation may be sought.

For the detection of causation we have in principle two empiric methods of procedure. One is to make frequent cross-sectional determinations of the physiologic and psychologic characteristics of the patient, ideally before and during the onset of the psychosis, or, less satisfactorily, during an attack and through a remission of the psychosis. For this aspect of the research, the most valuable type of patient is one who passes rather promptly through episodic acute attacks, with approximate normality between exacerbations. Thus the events might be placed in temporal sequence. Those invariably occurring early may be expected to include the causal factors of those arising later. The second method is the experimental. This amounts in effect to the arbitrary augmentation or reduction of any suspected factor and noting the consequences as mirrored in the clinical state of the patient. Commonly, therapeutic studies, when based on rational "leads," have a certain value in the determination of causation. Without further elaboration of the philosophic aspects of the problem, suffice it to state that these are the two general methods by which etiology is commonly determined. This paper embodies the description of an experimental project that has been evolved in the light of the foregoing considerations.

In the earlier years, the studies consisted of a series of tests of the vital functions, psychologic tests and rather conventional psychiatric studies.<sup>1</sup> As the work progressed, more and more difficulty was experienced in interpreting the data because of a rather high degree of variability among the test findings of the individual patients. In 1931, it was determined to concentrate attention for the time being on variability as such. A so-

called seven months' plan was formulated, and the work of the entire staff for a year was devoted to carrying it out. The plan has been briefly described elsewhere.<sup>2</sup>

The purpose of the plan was to collect observations on a considerable number of physiologic, psychologic and psychiatric variables for about seventy-two schizophrenic patients. This required four weeks of testing for each patient; each was then given two months' rest during which, however, studies of the action of certain pharmacodynamics and of the spinal fluid were made. The tests were then repeated and another period of rest interposed. Finally, in the seventh month the tests were made again. Thus each patient was studied rather elaborately three times without the complication of treatment other than unavoidable situational influences.

The entire environmental setting was kept as constant as possible, though absolute constancy is impossible in a hospital for mental illness. For example, every significant change in the clinical state of any patient constitutes a change in the environment of the others.

The schedule of studies is indicated in the accompanying table. An attempt was made to conduct the study under conditions that would secure the maximum utility of the data for purposes of correlation. Especially was it desired to secure observations of the psychiatric status coincident with the application of physiologic tests that might be modified by the emotional condition of the patient. In this we were not always successful owing to the limitation of personnel, but in general the psychiatric and other observations were so timed that major defects in the data were avoided.

*Schedule*  
First Week

Monday:	9:00 a.m.	Psychometrics	1:00 p.m.	Physical and Psychiatric examination
Tuesday:	9:00 a.m.	Psychometrics	1:00 p.m.	Physical and Psychiatric examination
Wednesday:	9:00 a.m.	Psychometrics if necessary	1:00 p.m.	Physical and Psychiatric examination
Thursday:	7:30 a.m.	“Basal metabolism,” including rectal temperature, pulse rate, blood pressure, weight and height; sample of blood collected for quantitative analysis and phytotoxic test	1:00 p.m.	Psychiatric examination
	9:30 a.m.	Breakfast		
Friday:	7:30 a.m.	“Basal metabolism”	1:00 p.m.	Diagnosis by admitting staff: psychiatrist’s note
	9:30 a.m.	Breakfast		
Saturday:	7:30 a.m.	“Basal metabolism”	p.m.	Mental note

Second Week

Sunday	a.m.	Rest	p.m.	Rest
Monday:	9:00 a.m.	Experimental psychology	1:00 p.m.	Psychiatric observations in ward
			3:00 p.m.	Photography – two nude poses
Tuesday:	9:00 a.m.	Experimental psychology	1:00 p.m.	Psychiatric observations in ward
Wednesday:	9:00 a.m.	Experimental psychology if not previously complete	1:00 p.m.	Psychiatric observations in ward
Thursday:	8:00 a.m.	Oculocardiac test	1:00 p.m.	Psychiatric observations in ward
	9:30 a.m.	Breakfast	1:30 p.m.	Dental examination and roentgen studies of skull, chest and gastro intestinal tract
Friday:	a.m.	Blood volume, plasma volume, hemoglobin, blood gases, blood pH, blood morphology	3:00 p.m.	Schneider test of vasomotor efficiency: psychiatric observations in ward
Saturday:	8:00 a.m.	Period of rest; recheck of Friday’s observations If necessary	p.m.	Rest

Third Week

Sunday:	7:00 a.m.	Start 24-hour collection of urine	p.m.	Collection of urine
Monday:	7:00 a.m.	Finish collection of urine	2:30 p.m.	Blood pressure
	8:30 a.m.	Inject phenolsulphonphthalein: collect specimens		
Tuesday:	7:00 a.m.	Start collection of 24-hour urine	1:00 p.m.	Psychiatrist’s note
	7:30 a.m.	“Basal metabolism,” lung volume		
	9:30 a.m.	Breakfast		
Wednesday:	7:00 a.m.	Complete 24-hour collection of urine	1:00 p.m.	Psychiatrist’s note
	8:30 a.m.	Inject phenolsulphonphthalein: collect specimens		
Thursday:	5:00 a.m.	Galactose tolerance control sample	1:00 p.m.	Psychiatrist’s note
	6:30 a.m.	Collect samples for chemical analysis of blood and blood counts		
	7:00 a.m.	Galactose tolerance test		
Friday:	5:00 a.m.	Repeat galactose tolerance test	1:00 p.m.	Psychiatrist’s note
Saturday:	5:00 a.m.	Repeat galactose tolerance test	1:00 p.m.	Psychiatrist’s note

Third Week

Sunday:	p.m.	Rest	p.m.	Rest
Monday:	8:00 a.m.	Fluoroscopic gastrointestinal studies begun: psychiatrist’s note: Internist’s note on physical status	p.m.	Gastro-intestinal series
Tuesday:		Gastro-intestinal studies continued; psychiatrist’s note		
Wednesday:		Gastro-intestinal studies continued		
	8:00 a.m.	Blood sedimentation test: bromsulphthalein; test for hepatic function; psychiatrist’s note		
Thursday:		Gastro-intestinal studies continued	p.m.	Psychiatrist’s note

## **METHODS**

The various items are mostly self-explanatory. Standard methods were used throughout. A history of the case was obtained, as discussed in a later section. A thorough physical examination of each patient was made, partly by way of eliciting data bearing on constitutional diagnosis, but especially for the purpose of detecting organic disease that would serve as a fortuitous complication of the study. Any patient showing evidence of disease beyond such passing afflictions as colds or minor ailments was excluded from the series. In short, our aim was to confine the study to subjects free from significant organic disorders.

Patients were included for study only when the research psychiatric staff was able to classify the cases as schizophrenic beyond a reasonable doubt. Patients were excluded on the following grounds: (1) over 50 years of age (chiefly because of the liability to organic changes frequently occurring with advancing age); (2) coexisting disease discoverable by the usual diagnostic methods; (3) adequate histories unobtainable; (4) marked language difficulties; (5) inclusion of feeble-mindedness with the schizophrenic picture; (6) symptoms predominantly those of psychoses other than schizophrenia; (7) recent chronic alcoholic or other intoxication.

For purposes of further description, the activities of the various cooperating departments will be dealt with separately.

## **ORGANIC STUDIES**

The determinations of the basal metabolic rates were made on Thursday, Friday and Saturday of the first week and on Tuesday of the fourth week. The patients were taken to the laboratory without breakfast and were put to bed for thirty minutes before being tested. After the period of rest the oxygen consumption was measured for two six minute intervals by the Benedict-Roth method. The results were calculated according to the Harris-Benedict and the Aub-Dubois standards, and the mean of the two values was taken as the basal rate. If superficially "satisfactory" conditions of basality were not secured, the tests were recorded but marked with an asterisk and not subsequently used for statistical purposes. Extreme care was taken to exclude technical error. The machines were tested daily for leakage and for failure to absorb carbon dioxide due to spent soda lime. Tests were recorded as "satisfactory" only when the patient remained quiet during the period of rest and showed no overt evidence of tension during the tests. If, as was usually the case, two consecutive tests differed significantly in the rate of oxygen consumption, the lower was regarded as more likely representative and was used for subsequent studies of correlation. The details of the study (on a large group) and a critique of results have been published elsewhere.<sup>3</sup> After the rate of oxygen consumption was determined, the patient's weight, standing height, sitting height, rectal temperature and blood pressure (systolic and diastolic) were determined. The results of the last mentioned study have also been reported.<sup>4</sup>

Front and lateral full length photographs were made of each patient in the nude at a standard distance of 6 feet (1.8 meter) and before a coordinate screen. A standard mercury vapor lamp served for illumination.

*Oculocardiac Test.*—The degree of vagus irritability was determined by a quantitative oculocardiac test. The pulse rate was recorded before and during the application of varying grades of pressure to each and to both eyes through an oculocompressor, following the Roubinovitch method.<sup>5</sup> The pressures used were 125, 150 and 175 mm. of mercury.

As a supplement to the physical examination a thorough dental examination was made. If indications appeared, x-ray plates were made of the teeth.

*Roentgenograms.*—X-ray plates were made as a routine measure of the skull—lateral and frontal exposures—the chest and the abdomen and pelvis after a barium sulphate meal. A consultant roentgenologic specialist interpreted each plate as to the condition of the sella turcica, sinus, lungs, stomach and intestines.

*Weight.*—This was obtained with the patient unclothed. By comparison with the Metropolitan Life Insurance Company height-weight-age tables, corrections having been made for shoes and clothing, a nutritional index was calculated.

*Blood.*—The volume was determined by the Congo red method.<sup>6</sup> In brief, a known volume of 1.5 per cent solution of Congo red equal in milliliters to one fourth of the patient's weight in kilograms was injected intravenously, after 10 milliliters of blood had been removed for the preparation of the standard. After mild exercise for three minutes and before the end of six minutes a second 10 milliliters of blood was taken. Five milliliters of the blood was added to each of two graduated centrifuge tubes containing 1 milliliter of 1.6 per cent oxalate solution. The control sample of blood was treated in the same way. All four tubes were capped with heavy finger cots and centrifugated for thirty minutes. At the end of this time the total volume and the corpuscle volume were read for each tube. The concentration of the dye in the serum was determined by reading in a colorimeter against a 1:200 dilution of the dye containing the same amount of serum taken from the control tubes. The volume of the plasma was then calculated, and by dividing this value by the percentage of plasma in whole blood the volume of the whole blood was determined.

The hemoglobin was determined in grams per hundred milliliters by means of the Haden-Hausser hemoglobinometer. The value of 15.6 Gm. per hundred milliliters was taken as normal.

Samples of blood were taken from the radial artery and the median basilic vein for determination of the gases and the pH. The samples were taken directly in glass syringes to which a finely powdered sodium oxalate and sodium fluoride mixture was added, and then the syringes were capped. All venous samples were taken at least thirty seconds after removal of the tourniquet to allow for reestablishment of the normal circulation and to

prevent stasis. Exposure to air was completely prevented by handling the blood in the syringes in which the samples were taken. Evidence that this technique was satisfactory will be reported in detail in a subsequent paper.

The arterial and venous oxygen and carbon dioxide were determined in a Van Slyke manometric apparatus. The pH of the arterial and the venous whole blood was determined by the glass electrode and the electron tube potentiometer of Stadie.<sup>7</sup> All measurements were for whole blood at 38 C.

The morphologic study of the blood included a red cell and a leukocyte count, and a differential count on 200 cells. Both the conventional and the Schilling criteria were used.

The vasomotor efficiency was studied by the method of Schneider.<sup>8</sup>

*Renal Function.*—The rate of excretion of phenol sulphophthalein was determined for two of the three test periods, but was then discarded as not significant for patients on whom extensive analyses of the blood and urinalyses were being made.

The urine was collected for two twenty-four hour periods in each of the three test months. At least two and in some cases all of the specimens were obtained by catheterization at the beginning and the end of the collection, with voluntary voidings in between. The patients were under surveillance throughout the entire time of the collection. The volume and specific gravity were measured, and from these values the total solids were calculated. Each specimen was centrifugated and the sediment subjected to microscopic examination. Qualitative tests were made for indican, albumin, sugar, bile, acetone and urobilinogen. An aliquot portion of each sample was analyzed for total nitrogen, urea, uric acid, creatinine and ammonium nitrogen. The residual nitrogen was determined by subtracting the sum of all the determined bodies from the total nitrogen.

*Volume of the Lungs.*—This was determined by the use of a spirometer in which was measured the total forced expiration after a forced inspiration. In psychotic patients this datum is significant when the volume is equal to, or above, prediction. Subnormal values are obviously of dubious significance because of the dependence of the datum on the cooperation of the subject.

All samples of blood for chemical analysis were taken in the morning before breakfast. The nitrogen of the urea, amino-acid, uric acid, creatinine and creatine fractions was determined, and this was subtracted from the nonprotein nitrogen to give the residual nitrogen. Except for the urea nitrogen, which was obtained by the method of Looney,<sup>9</sup> and the uric acid, which was at first determined by the method of Benedict and Franke, all determinations were made by the methods of Folin. Cholesterol was determined in the whole blood by the method of Myers and Wardell and blood sugar by the method of Folin.

*Phytotoxic Index.*—As previous studies<sup>10</sup> had demonstrated that the serum of certain psychotic patients was toxic to the growth of seedlings of Lupinus albus, the "phytotoxic

index" was included in the study. This index is obtained by dividing the average elongation of the root of the seedling of *Lupinus albus* in a solution of mixed salts<sup>11</sup> to which 1 per cent of blood serum has been added by the elongation obtained in the same concentration of the same solution alone. From 10 to 25 seedlings were used for each test. The results of this study will be published in detail later.

*Sedimentation of the Blood.*—The rate was determined by the method of Rourke and Ernstene.<sup>12</sup> This, with the Schilling index, was relied on to supplement the ward observations of the nurses and internists in the detection of intercurrent infections. As a further precaution, morning and evening rectal temperatures and resting pulse rates were recorded as a routine measure each day and the weight once a week.

In the routine studies, standard methods were used throughout. These will be discussed more fully in subsequent reports on the different phases of the research. Suffice it here to state that the more difficult procedures were carried out by thoroughly trained chemists and physicians and the other procedures by well-trained technicians under constant supervision. The work was checked at frequent intervals by carrying out the technical procedures in duplicate so that the analytic error in all determinations was kept to the minimum for the specific test.

*Pharmanodynuzmic Tests.*—In addition to the routine studies, each patient was subjected to special pharmacodynamic tests during the interval between routine test periods to determine the functional condition of the autonomic nervous system. The details of these tests will be reported separately.

*Galactose Tolerance.*—The test of Rowe<sup>13</sup> is used as an index of carbohydrate metabolism.

*Gastro-Intestinal Function.*—Roentgenographic studies included pictures of the abdomen or abdomen and pelvis immediately and at six and twenty-four hour intervals after the ingestion of 180 Gm. of barium sulphate. Plates were made with the patients in the supine position. Fluoroscopic examinations were made with the patients in the erect position. The final progress of the barium through the tract was determined by fluoroscopic examinations repeated daily until evacuation was completed. In connection with the gastro-intestinal studies, each patient was reexamined by a physician to exclude intercurrent physical disorders that might render the findings noncharacteristic. Likewise, each received a special examination by the psychiatrist each morning of the tests as a control on the emotional factor.

*Hemato-Encephalic Barrier.*—This was tested for permeability by Hauptmann's modification of Walters' bromide method, as used by Falamud and co-workers.<sup>14</sup>

The test consists in feeding the patient bromide for several days and then estimating the ratio between the bromide in the serum and that in the cerebrospinal fluid from the color produced by gold chloride.

*Hepatic Function.*—Tests were made by the methods of McClure for the determination of cholesterol, bile pigments and bile acids in the bile obtained from duodenal drainage after stimulation with oleic acid. Bromsulphalein determinations of hepatic function, the van den Bergh reaction, the icteric index and Graham tests were also made.

Forty-eight patients were studied before and after the feeding of tyrosine for changes in the phenol content of the blood and urine in relation to the uric acid of the blood. These studies were highly technical, and further discussion of them will be deferred until the data are systematically reported.

Control studies on various features were made on a group of physicians, medical students and laboratory workers.

### **PSYCHOLOGIC CONTRIBUTION TO THE STUDY**

For its part of the study, the psychologic department used a battery of tests and experimental procedures aimed at obtaining samples of the psychologic and psychophysiologic characteristics of the patients. These ranged from reflex responses through various motor and intellectual functions to complicated personality traits and attitudes. The nature of these can be seen from the list of items to be given. The attempt was made to touch on a fairly comprehensive group of functions in order to enable us to study the intercorrelations of these and their connection with the physiologic and other characteristics studied during the same period. It was also desired to study the variability in these functions over the period.

In this paper we shall not discuss the possible effects of previous examinations, the order of items in the psychologic schedule and the effect of other, nonpsychologic studies made in the same period. The consideration of such problems must be left for future papers, as must also the discussion of the question of controls, the attitude of patients and examiners and other problems.

It might be stated, however, that the general program was so arranged as to have the psychologic part of the study carried out at times when there was the least likelihood of the results being affected by other procedures, especially those often unpleasant to the patient, such as blood tests. The psychometric examinations came at the very beginning of the month of study, in the mornings and afternoons of the first two days of the first week. If the examination was for some reason or other not completed during the first two days, the third day of the week was used for this purpose. During the second week the major part of the experimental psychologic procedures were gone through on the corresponding days of the week. After the first period of study, additional experimental procedures were introduced, but because of the fullness of the schedule it was necessary to place these in what was called the "zero" week. This was the week preceding the first week of repeated study, i.e., the last part of the last week of the two-month period of rest. The schedules used are herewith presented. They were modified in only a few cases. The figure in parenthesis preceding the item refers to the number of times it was, as a general

rule, given during the seven month period.<sup>15</sup> After each item is given the reference to the sources for the techniques so far as it is possible to give them.<sup>16</sup>

### Psychometrics

#### Week I: First Day

- (3) K-S clinical formboards<sup>17</sup>
- (3) Stanford-Binet test<sup>18</sup>
- (3) Otis S. A. intermediate test (alternate forms)<sup>19</sup>
- (3) S-K symbol-digit test<sup>17c</sup>
- (3) Writing test<sup>17c</sup>
- (3) Drawing test<sup>20</sup>
- (1) Freyd occupational interests<sup>21</sup>

#### Second Day

- (3) Worcester 2C formboard<sup>22</sup>
- (3) Army Alpha (alternate forms)<sup>23</sup>
- (3) G. E. pinboard<sup>24</sup>
- (3) Kent-Rosanoff association<sup>23</sup>
- (1, 2) Thurstone<sup>26</sup> or Bernreuter<sup>27</sup> personality inventories
- (1) Heilbronner test<sup>28</sup>
- (1) Memory test<sup>29</sup>

### Experimental Schedule

#### Week II: First Day

- (3) Steadiness<sup>30</sup>
- (3) Prod<sup>31</sup>
- (2) Knee jerk<sup>32</sup>

#### Second Day

- (3) Pursuit<sup>33</sup>
- (3) Reaction time: simple visual, choice visual, simple auditory<sup>17c</sup>
- (3) Tapping
- (2) Galvanic threshold<sup>34</sup>

#### Third Day

- (1) Luria "Motorik"<sup>35</sup>

#### "Zero" Week

- (1, 2) Observation<sup>36</sup>
- (1) Interruption<sup>37</sup>
- (1) Rorschach<sup>38</sup>

On a few occasions it was necessary to change the regular psychometric schedule owing to foreign language difficulty or to lack of cooperation. Under these circumstances tests such as the following were substituted: Army Beta, Witmer cylinder, Witmer formboard, ship, Kent-Kohs color cubes, Woodworth-Wells substitution, Porteus mazes and Healy picture completion.

## **PROGRAM OF PSYCHIATRIC STUDY**

The psychiatric study of patients on the research service was made in accordance with an established schedule. Admission to the service followed a diagnosis of schizophrenia by the ward physicians and a recommendation as to suitability. On admission the patient was assigned to one of the four staff psychiatrists for thorough study to determine the reaction type. An extensive mental examination, consisting of an elaboration of the Kirby schema, was made over a period of four days. On the fifth day the psychiatric findings, together with social service history and the results of the pertinent psychologic examinations, were presented to the diagnostic staff, consisting of four psychiatrists, three or more internists and two psychologists; both of the latter groups were well versed in practical psychiatry. After an adequate discussion of the findings and an interview with the patient, classification was made as to diagnosis, subtype and suitability for further study as determined by the criteria cited earlier in this article. In the classification of the cases of the patients into various subtypes of schizophrenia, the Kraepelinian system was used for clearcut types; otherwise the cases were designated as "mixed," "unclassified" or "late indeterminate."<sup>39</sup> The terms were regarded as merely roughly descriptive, not as connoting nosologic differentiation. Unanimity of opinion as to subclassification was not considered essential. When once accepted as suitable, throughout the rest of the period of study the patient was interviewed daily by the psychiatrist, and careful daily notation was made of his mental state and behavior, especially in relation to the procedures of study. In the second and third periods of study, precisely the same order of psychiatric routine was followed. This included even the diagnostic procedure, in order to insure a reasonable validity of diagnosis and to correct any errors made. During the periods of rest no intensive psychiatric study was conducted, but the patient was seen daily and often interviewed by the psychiatrist. The information was recorded in the form of weekly notes. In order to supplement the material obtained directly by the psychiatrists, a daily conference between the nurses and the psychiatrists was held at which an account was given of each patient's activities. The nurses and attendants also recorded independently the usual ward notes in accordance with a standard established by the psychiatrists. Further, under the direction of the chief psychiatrist, two ward observers took notes on selected aspects of the patient's behavior.

## **STATISTICAL ASPECTS OF THE STUDY**

During the progress of the study about five hundred thousand quantitative observations were made. Means had to be adopted to insure the recording and organization of the material. The achievement of four principal aims was undertaken: (1) assuring from the outset of the project the statistical validity of the data; (2) safeguarding the completeness of the data; (3) consolidating the records emanating from various departments; (4) analyzing and presenting the results.

It was believed that a statistical department should not defer functioning until after the figures had been produced, but should take an active part in devising the experiments and the record forms, thus making it more probable that an ultimate statistical analysis would really lead to a clarification of the problems in question. Consequently the statistician and his staff were in constant contact with the various research workers, discussing with them

such points as numerical requirements, control groups, control of interfering variables and experimental and observational errors. Each subproject was "set up" in preliminary outline, considering: (a) the objects of investigation. (b) the justification of the project, (c) the methods to be utilized, (d) the records and reports required, (e) enumeration of the personnel and its duties, and (f) the estimated cost of the undertaking.

Such outlines were submitted by each research worker to the various members of the group, including the statistician, for criticism before starting to work on the problem.

The problem of safeguarding the completeness of the data necessitated a comprehensive checking system to make certain that all reports due from the various workers were received.

The consolidation of the mass of experimental data coming from many sources constituted one of the major practical problems in the statistical set-up. Our purpose was to combine facilitation of statistical analysis with accessibility of the data to the various workers. We wished to present the raw data in a form which permitted quick scanning and which would give a longitudinal and cross-sectional picture of a patient at a glance. Obviously a coding system would not serve this purpose. Besides, we were working with an unusually large number of variables but a relatively small number of patients on whom not single but frequently repeated observations were made at short intervals. Thus the conventional punch-card system was not applicable.

A special system of consolidating and recording was devised. For each of the major branches of the research a separate soft paper card, 10½ by 6 inches (25.4 by 15.24 cm.), was used. The cards had twelve lines, providing space for observations over one year, the number of columns depending on the number of variables involved in the study to which the card referred. One card with twenty-seven headings was devoted to social history; one card with fourteen headings dealt with the chemical composition of the urine. The chemical composition of the blood and the blood counts were recorded on two cards with a total of forty-two headings one card with ten columns contained the data on basal metabolic tests. Psychometry and phychologic experiments appeared on three cards, with a total of fifty-five columns. Miscellaneous clinical data relating to the temperature, the pulse rate, the weight, the gastro-intestinal studies and the galactose tolerance were given on one card of twenty-six columns. Therapeutic data were recorded on one card under twenty-nine headings. This card included, in addition to results on medication, data on physical activity in terms of hours spent in work and play, the number of visitors received by the patients and the like. Lastly, there was a card on which the positive findings of the physical, dental and roentgen examinations were recorded.

At the bottom of each card a descriptive title summarized the kind of data to which the card was devoted. The cards were placed in overlapping arrangement, showing the bottom label, on a division sheet and bound in a so-called "straight-post visible binder," from which either the whole case or a single card could be taken out at any time with the greatest facility.

The binder had a capacity permitting the inclusion of the history of each of thirty-three patients for twenty-five years and giving space for the records of five hundred variables. A given month was always kept in the same horizontal line on all cards, so that by placing cards side by side paired values for correlation studies could be easily picked. It should be mentioned that the transferring of the data to these consolidation forms was subjected to a triple check. Simultaneously with this consolidation scheme all observations were coded, and as soon as a period for a given patient was completed the coded values were scored into frequency tables.

This system made it possible to compute descriptive averages such as arithmetic means and standard deviations at any given phase of the study. Frequency distributions of each variable were prepared according to the following scheme: distributions of all values per period, distributions of individual mean values per period, distribution of individual ranges per period, distribution of individual ranges over all periods and distributions of the differences of individual means by signs between two periods.

Besides this, in instances in which the number of observations warranted, as for example in the case of bodily temperatures and pulse rates, a separate distribution was prepared for each patient. Thus, for these two and a few other variables we obtained measures of variation for individual subjects, and from these individual standard deviations we prepared frequency distributions of this constant.

Approximately six thousand frequency distributions were plotted, and their constants computed. This furnished an ample basis for the determination of variation within and among subjects. Besides this, an analysis of seasonal trends was attempted for each variable.

The correlation of the many factors constituted the greatest part of the labor in the statistical offices. Many gross correlations were computed and the relationships presented in the form of scatter-diagrams. Contingency tables were frequently compiled as need demanded.

Finally, the statistical material on many of the different aspects has been assembled, and interpretative memoranda have been prepared.

## **SUMMARY**

A cooperative project for the investigation of schizophrenia in its several aspects is described.

The functions of the laboratories devoted to organic and psychologic features of the research are outlined.

The methods by which psychiatric observations were made is discussed.

The recording and analytic methods used in dealing with the data are recounted.

The project has proved to be practicable and productive.

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<sup>15</sup> A number of items were for one reason or another were not given the requisite three times, usually because the nature of the test or experiment precluded it.

<sup>16</sup>. A number of the techniques are original and will in time, it is hoped, reach publication. These are indicated. A number of modifications of existing techniques have also been made. They will be reported in the papers on the specific subjects.

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# **Grading of Patients in Mental Hospitals as a Therapeutic Measure**

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For the past four years the Worcester State Hospital has been carrying out a research project on the etiology and therapy of dementia praecox.<sup>1</sup> In addition to endocrine and other drug medication, systematic attention has been given to certain types of situational therapy. Among these, a plan of grading and promoting patients was instituted, and sufficient experience has now accumulated to justify a preliminary report of results.

The idea is by no means novel. An essentially identical plan was introduced into the Irish Convict Prison by Sir Walter Crofton in 1854. He established a method of classing the convicts into grades and of promoting them from a relatively simple environment through one of increasing complexity to that of normal, social life. During this process, an effort was made to stimulate the prisoners to self-betterment. That various similar plans have been employed in more or less elaborate form in mental hospital practice is well known. The common use of parole privileges, which, from the standpoint of the patient, constitute a reward bestowed for improved conduct, is one phase of this general plan. So far as we are aware, however, the method has not been employed sufficiently extensively and systematically, under controlled conditions, to permit an appraisal of its therapeutic value.

Ordinarily, the patient comes to the hospital in a state of high emotional tension that is a result of his unsuccessful attempts to cope with an over-trying environment. During the initial period in hospital, perhaps the most valuable feature is a simplified environment that relieves him, in a measure, of the necessity for a psychotic adjustment. After a time, however, the simplified situation is likely to have an effect as detrimental as it was at first favorable. The hospital environment tends to promote conformity, obstruct individuality, and deprive the patient of personal interests. He becomes "institutionalized," and develops habits of routine behavior which, coupled with natural human inertia, tend to keep him on the level of "good ward adjustment." The time comes when the psychiatrist desires to institute a more active regimen to stimulate the patient to take up once more the problem of self-realization. He then encounters the problem of motivation. He may give any amount of good advice, but be completely baffled by a spirit of "*cui bono*."

When the patient has reached this stage there is need for introduction into the ward management of some means of actively correlating his own personal interests with the hospital situation. This should be done in a forceful but unobtrusive way, taking into account the fact that the individual patient is highly ego-centric, and may be strikingly unable to visualize himself as psychotic and appreciate his situation as similar to that of his fellows. He cannot, therefore, readily be approached on any basis of common

experience as to what is good for mental patients. Any appeal must be personal. It must be acceptable, readily comprehended, and genuinely stimulating.

Since the great majority of patients have had several years' experience in the public schools, and have become conditioned to response to schoolroom routines, less resistance is to be anticipated if situational therapy can be given the coloration of schoolroom technique. In particular, the subjects are quite habituated to promotions as a result of active conformity to imposed routine. They are inclined to accept unquestioningly the abstract justice of this, as some of their comments quoted later will show.

The plan adopted in the Research Service of the Worcester State Hospital consists in a scheme of grading based chiefly upon behavior. It is formulated in terms comprehensible to the patients, rather than appealing to the scientific sense of the psychiatrist. An explanatory statement of the scheme is posted conspicuously in the wards. It consists of a series of paragraphs, and each is displayed as a large poster. Each poster carries the line, "Patients are sent home only from Grade B." In each ward is kept posted, also, a roster of all patients on the service, classified by grades. Each week a list of promotions and demotions is posted.

In all, seven posters are used, reading as follows:

### **THIS WAY OUT**

All patients on the RESEARCH WARDS are graded according to their progress. As they improve they are promoted. They are sent home ONLY FROM GRADE B. If you want to go home, improve your grade.

Your doctor will explain.

#### **GRADE A—AT HOME.**

Able to act like normal people.  
Able and willing to work.  
Able to get along with family and friends.

#### **GRADE B—GOING HOME.**

Getting well enough to go home.  
Working well.  
Reliable on parole.  
New interests and new ideas.  
Old ideas controlled or understood.  
Rebuilding mental strength to stay well.

Patients are sent home only from Grade B.

#### **GRADE C—ON PAROLE.**

Working and playing well.

Getting new ideas and interests.  
Making the best of everything.  
Cooperating well and obeying rules.

Patients are sent home only from Grade B.

**GRADE D—FIRST CLASS ON THE WARD.**

Keeping neat and tidy.  
Working well and playing well.  
Learning to take things as they come.  
Beginning to understand old ideas.  
Learning to cooperate in everything.

Patients are sent home only from Grade B.

**GRADE E—SECOND CLASS ON THE WARD.**

Working and playing poorly.  
Lazy and shiftless.  
Too proud of own ideas.  
Not very cooperative.  
Careless of clothing.

Patients are sent home only from Grade B.

**GRADE F—THIRD CLASS ON THE WARD.**

Mute, resistive.  
Silent or too talkative.  
Excitable and disturbed.  
Not cooperating.  
Not working or playing.

Patients are sent home only from Grade B.

## **PRACTICAL RESULTS**

This scheme has now been in operation about six months. The poster material was displayed, one unit at a time, over a series of weeks. The first poster was placed in a well-lighted, prominent position over a door through which all patients routinely passed. After a few days it was removed to an alcove, and the second poster put on display over the door. Thus the whole Series ultimately came to be posted in the alcove, where each could serve frequently to reinforce the suggestions. From the first, the patients manifested a marked interest in the posters. A census revealed that at least eighty per cent were giving them their personal attention. Some patients were elated over their classification; others were disappointed and argumentative, though only one or two out of a hundred showed

any definite antagonism. Various illuminative criticisms were collected from the patients. Some of these may be recounted.

F. P. —“That’s like being in school. You can get somewhere in school—just go from one class to another; only here you go home.”

A. T. —“I’m in Class D. I don’t think I can ever get in Class A, but I know I can get in C, and I’m going to do it.”

J. T. —“You’ve got me in C. I belong in A.” This patient protested for weeks and then began asking the nurses and attendants and physicians what to do to get in Class B, calling attention to every achievement in order to win promotion.

J. F. —“How long have I got to stay in F? “He was given an explanation and shown by the chart and answered, “Oh, I can do that. I’ll be in E next week.” (He was.)

S. R. —This patient is untidy, soiling himself night and day. Upon coming to the ward and noting his classification, which was F, he stared at it steadily for a half hour, then asked the examiner, “Am I in Grade F?” He was told that he was, and after ten minutes more study asked, “Do I have to stay there?” Informed to the contrary, after a long pause he answered, “Well, I won’t.”

T. A. —“You’ve got to go through that like you do in school, doctor, I want to be in C and then I’m going to get in B, and then I can go home.”

E. M. —“That’s silly-nonsense. They’ve got me in Class C. I’ll show them where I belong. If they want more work, I can do it. I belong in Class B.”

E. D. —“Doctor, can’t you show me how to get up in the next class?”

A. C. —“When I first came here, I was in F, but I just had to do one little thing and then another, and then you keep going up, and now I’m in B.”

An unforeseen element of value in the scheme is its effectiveness in eliciting the cooperation of the families of the patients. They became much interested in the grades given to their afflicted relatives. Not infrequently the visitors have taken a wholesome, active part in the therapy, urging greater effort upon the part of the patients, praising them for their progress, and, on their own part, developing new interests in place of the previous hopeless attitude. Promotions in some cases have been rewarded by the relatives by special gifts. There has been a definite increase in the number of visits. One mother commented: “Albert was in Grade F so long that I lost hope, and then when he got promoted to E, I felt happy. Now he is in D, and I want to come to see him every week to see how long it will be before he is in C.” While the therapeutic effect of such an attitude of the relatives is difficult to measure its reality is unquestionable.

## **DISCUSSION**

The plan described can be related directly to the underlying principles of psychiatry. A striking feature of the schizophrenic patient is the regression to immature levels of thought and behavior. The project is definitely planned to meet the patients at the childhood levels, to evoke childhood memories, and utilize earlier conditioning. Again, the simplicity of the plan broadens its appeal both to the patient of lower grade mentality and to the patient whose interest cannot be aroused in anything requiring much mental effort because of his preoccupation with his fantasy life. Particularly, the principle of graduated achievement is theoretically sound. To many patients in the lower grades, the feat of stepping at once into the highest grade seems impossible of accomplishment. The task of improving their status by a single grade, however, appears much less hopeless, and they are accordingly more inclined to make the necessary effort.

One of the most ominous features in the schizophrenic psychosis is a malignant sense of isolation. The patient's thinking tends to be exclusively in terms of "I" and "Me." To whatever extent he can be brought to think in terms of "We" and "Us," he is on the way to a cure. The plan under discussion is of some value in stimulating a sense of group consciousness. Moreover, it introduces the principle of emulation within the group, which reinforces the attention to the plural pronoun rather than the singular.

The plan is valuable in its constant repetition of suggestion, without becoming a stale and accepted part of a meaningless routine. This follows from the fact that the patient, with each promotion or demotion, has occasion to re-orient himself and thus reconsider the whole situation in terms of personal interest.

Perhaps the most significant element in the plan is its tendency to enhance the self-esteem of the patient. In practically every case, the schizophrenic psychosis exhibits a protective reaction to a sense of personal failure.<sup>2</sup> Each improvement in the patient's grade gives him a sense of accomplishment.

## **SUMMARY**

A plan is described that is in successful operation as one feature in situational therapy in a research service devoted to the study of schizophrenia. The patients are formally divided into six groups in accordance with their psychiatric status. Each group is described in terms comprehensible to the patients, and to each group is assigned a grade letter. Patients are promoted or demoted from grade to grade in accordance with changes in the mental condition. All promotions and demotions are given ward publicity. This is an effective method of motivating efforts toward self-improvement and of stimulating hope in the individual patient. The method is widely applicable to state hospital practice, and yields excellent therapeutic results for the effort expended.

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# **Evolutionary Factors in a Psychosis\***

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\* Material obtained from the records at the State Hospital for Mental Diseases. Howard, Rhode Island.

## ***Introduction***

The following case is presented for consideration for two reasons, first, because it shows the gradual evolution of a psychosis from definitely recognizable psychogenic strains and stresses and personality frustrations having their beginning in the patient's infancy and continuing without interruption by force of chance and circumstances throughout life; second, because it illustrates so well, in the author's opinion, the utter inadequacy of the present official system of classification of mental diseases. No diagnostic tag given this patient's psychosis can give any understanding of it. It is an affective disorder occurring at the age of menopause, but it is comprehensible neither as involutional melancholia nor as manic depressive, but only as the culmination of a life-long series of events and situations which the personality could not combat. In giving the case, only significant, positive data are presented.

## ***Reason for Commitment***

The patient, P. E., a white female 43 years of age, of German extraction, was committed to the State Hospital on March 24, 1930, because of a determined attempt to kill herself and her son by means of illuminating gas.

## ***Family History***

The familial history reveals sound ancestral stock. The parents were members of the wealthy class, well educated and cultured. The marriage, however, was most unhappy, separation occurring during patient's infancy, and divorce despite the Catholicism of the family during patient's years of puberty.

## ***Personal History***

Her birth and early development were normal, and her childhood was physically healthy. Her personality was described as that of a shy, sensitive, timid, cheerful person with a strong social urge and an attractive nature.

Her early home life was most unfortunate. Neither her father nor her mother desired her, and the role of an unwanted child was thrust upon her from the beginning. She was early sent to live first with one relative and then another, staying comparatively short times at each home, and none of the relatives were seriously interested in her. Her childhood life was barren and secluded and she was not allowed to play with other children. What few contacts she did establish were always interrupted by the transiency of her visit.

When about eight or ten years of age she was sent to convent schools for an education, but even then was not allowed to become well established in any one school but was periodically sent to another. She was, however, exceedingly clever in her academic work, and by the age of fifteen had received the equivalent of two years of high school. Her mother's divorce and subsequent remarriage when she was thirteen added further difficulties to her adjustment in the convent since she was looked upon with considerable askance by the other pupils, and her own intense religious training there made her mother's religious dereliction a source of considerable conflict.

Upon the completion of her convent education she was received into her mother's home but treated as a servant, since her mother disliked her and the step-father's attitude was only one of pity. She was restricted in all her pleasures, and her social contact of any significance was limited to a brief, surreptitious, innocent flirtation with a young man in the neighborhood. After two unhappy years at home she was sent around to the homes of various of the nobility related to the family, where she played the role of poor relation or acted as governess in return for her care.

Then at the age of nineteen, because she could get neither happiness nor satisfaction out of her situation, she decided to come to America. The money was loaned her by her grandmother, a debt which she later repaid to the last cent. Upon arriving in America she immediately took out citizenship papers, lived with an uncle in New York for a while, attending night school to improve her knowledge of English, and looking for work. She shortly secured a position as governess with a wealthy New York family and remained with them for somewhat over a year, teaching the children languages. She lost this position when the family decided to go abroad, securing another, and losing that very shortly through similar circumstances. A third and fourth position were likewise secured, but each time circumstances terminated her position and she was often hard-pressed economically.

After being in America for several years, she met a young man at a church social and fell very much in love with him and he with her. However, before the romance could culminate, the young man was suddenly killed in an automobile accident. At the funeral she met the young man's father, who became interested in this attractive young woman who had meant so much to his son. This interest developed into an affection, and at the age of 23 she married this man, who was 45 years her senior. Her marital life in general was very happy, but she played more the role of nurse and housekeeper to her husband than that of a wife. One child resulted from the marriage, a boy now 18 years of age, and this child has constituted the central interest in her life. During the last ten years of her

marital life her husband was very much of an invalid, and when he died four years ago she was not greatly disturbed emotionally.

There were, however, certain seriously disturbing factors in her marital life. First, her husband's family furiously objected to her, accusing her of having married her husband for a home and his money. Second, about fifteen years ago, she and her husband made unsound speculations, losing somewhere around, \$16,000. This business loss forced her husband to return to his business of manufacturing roulette wheels, but his physical incapacity compelled her to take over the management of the entire shop. The seasonable nature of the industry and an economic depression, together with limitations of their economic means, caused her very considerable distress of mind. Then, following her husband's death, she had a series of protracted law-suits with his relatives concerning some landed property which he had left her. To free herself of these law-suits she was finally forced to buy them off, and in doing so she had to place a mortgage on the two houses she was left. She then absorbed herself in the business, hoping to earn enough money to give her son all possible educational benefits. However, business became progressively worse, and in October, 1929, she was forced to sell one of the two houses. Following this she became greatly distressed and much worried about the future solvency of her business. For week after week she attempted to devise ways of increasing her business and of securing additional income, fearful that it might be necessary for her son to discontinue school and contribute to her support.

Her acute psychosis began to develop in the latter part of February, 1930. She became increasingly depressed and increasingly interested in ways and means of committing suicide. She questioned her son in detail about methods of suicide, brooded a lot, and occasionally refused to speak. A week before her admission a package of razor blades was found in her belongings. Then on March 22, 1930, seemingly unusually cheerful, she called on some friends, returning about midnight, and finding her son asleep, she closed the doors and windows so that she could fill the kitchen with gas and have it overflow into her son's bedroom. However, the smell of escaping gas awakened her son and he secured medical aid in time to revive his unconscious mother. Although she seemed entirely rational the next day, commitment to the State Hospital was deemed advisable.

### ***Physical Examination***

Physical examination and Laboratory findings upon admission were essentially negative for significant clinical findings. The menstrual history was normal until the last three years, during which time there had been a gradual decrease of the menstrual flow with practically none during the last six or eight months.

Preliminary examination upon admission revealed a somewhat poorly nourished woman of 43, whose facial expression was one of marked depression and anxiety. Her general bearing suggested great emotional tension, and she was very restless and constantly moving, although her movements were slowly performed. She answered questions readily in a low tone, and explained that she had attempted suicide because she was afraid

that if she died or was sent to a hospital for mental diseases her son would be alone in the world and that she did not want him to be so situated.

Mental examination on March 27 revealed a 43-year-old white female of German extraction whose manner was one of depression and who shed tears very readily. She was somewhat retarded in her actions and thought processes, and her speech was slow and deliberate. She was fully cognizant of her situation and repeatedly and piteously asked to be allowed to return home. She gave a complete account of herself, going into all the details of her history accurately, as was determined later through separate investigation. She emphasized in particular the insecurity of her home situation as a child, her lack of sex instruction, her deprivation of social opportunities, her barren sexual life with her husband, her economic losses, the burden of her husband's care, and the economic stresses undergone following his death.

No definite delusional trends were obtained. She manifested no particular self-accusatory trends except the single statement, "I blame myself for worrying about trying to make my boy comfortable."

The patient's affective responses were those of very considerable depression. Connation and action were decreased. Associations and stream of thought revealed some slowing of her thought processes, but no actual blocking. No amnesia noticed, and there was no disturbance of her native powers of judgment. Her fund of information was entirely commensurate with her educational opportunities. Insight into her condition, however, was faulty, and she explained her conduct by saying, "I was upset when I did it. I know I was. I know it was wrong, but I was not insane."

### **Clinical Course**

The patient's clinical course showed fairly rapid improvement in her condition. At first she was considerably depressed and agitated on the ward, asserting vaguely that the future was dark and foreboding, that she could see nothing but troubles and worry. She gradually began to improve, become smiling, cheerful, and agreeable. She took much interest in Occupational Therapy and in ward activities. Within a month she seemed to have entirely recovered from her depression. After six weeks she was allowed to go out for short visits during the day with her son, and on each occasion she adjusted excellently. About the middle of May, her son took her out for a ride one Sunday afternoon, and she cheerfully asked him to take her to their home for a short time. There, according to him, she began acting queerly, and looked through the medicine closet. Fearful of her intentions, he immediately took a bottle of iodine and some razor blades out of the closet and went out in the garden and buried them. When he returned a few minutes later his mother was gone. Neighbors and the police were called and all searched for her, but she was not found until the next morning where she had hanged herself in the basement after slashing her wrists deeply.

## **Diagnosis**

Purely for classification purposes she was diagnosed *Involutional Melancholia*, with a differential diagnosis of *Manic Depressive, Depressed*. The former diagnosis was considered the more suitable since she was of proper age and since she had never shown the more or less characteristic cyclothymia of the manic depressive temperament.

## **Interpretative Summary**

The evolution of this psychosis seems to be fairly apparent. Her entire life history is one of insecurity, deprivation, obstruction, and defeat. In her own subjective review of her life, she felt that everything that she had firmly desired had been denied her. Born in a disrupted home, discarded by her father, rejected by her mother, and forced from early infancy to find her home among intolerant and unwilling relatives, she was denied that sense of security so essential for childhood development. Going from pillar to post and never being welcome anywhere, she could never achieve that sense of being an essential and stable part of her environment. Denied social contacts as a child and changing homes before she could reap the benefits of whatever brief contacts she had, a sense of social starvation resulted and she failed to secure the foundations for an adult social structure in her life. Later, when sent first to one convent and then another for her education, she found herself an alien creature. To quote her own words, "I wasn't like the other girls. They all had homes and parents and friends, and I didn't have any." Further conflict developed when, as a result of her intense religious training in the convent, she attempted to assimilate the facts of her mother's divorce and remarriage. Finding no solution to these conflicts, she absorbed herself in her studies and easily became a star pupil, but after completing her education and achieving that sense of accomplishment, she returned to her mother's home, hoping in a vague, adolescent way that life would then hold something for her. But instead of securing an opportunity to capitalize her sense of accomplishment, she was treated as a servant and as an unwanted dependent, and sent around to the homes of various wealthy relatives to play the role of a poor relation. At about the same time her normal sexual development occurred, with consequent curiosity, but because of lack of instruction, social starvation, and the surreptitious nature of her one, futile, adolescent romance, she developed only a burning sense of ignorance, of inferiority, and of nameless shame.

By the age of nineteen her sense of maladjustment was so great that it forced her to the drastic resort of seeking her inalienable human right to happiness in a foreign country, namely, America, that land of El Dorado. This severing of her home ties, the emotional poverty of her life, and the necessity of earning her living in a foreign land under the handicaps of an alien constituted a most serious strain upon her personal resources and accentuated her feeling, already great, of personal inferiority.

But even in America the fates pursued her as harshly as they had in her native land. One position after another she lost through no fault of her own. Even the young man with whom she fell in love was accidentally killed, the subjective results of which can be best expressed in the patient's own words: "What could I do?"

Marriage to a man 45 years her senior, though not consciously realized, was obviously only a solution to her life-long problem of home and economic insecurity. For this solution she paid by compensatory conscientiousness in her marital life that rendered it only a life of duty well done. But in solving this insecurity problem, she frustrated her opportunities of self-expression. She was young and starved and eager for the joys of youthful, human, physical life, but all that she could attain was the task of being nursemaid to an old man, and her only escape was sublimation of her sexual desires in interest and affection for her son.

When, through unfortunate speculations, her house of cards came tumbling down and there was a gradual development of economic distress, she found her life-long plan of sacrifice and effort to secure domiciliary and economic security defeated. Along with this loss of everything she had striven for since childhood came the dawning realization of another loss. Her son, that central interest in her life and who constituted her only means of achieving sexual and emotional gratification, would soon be lost to her by emancipation from childhood dependency. Hence, in a psychotic effort to stay the inevitable actualities of life and to secure herself from further difficulties and changes, she attempted to kill herself and her son, thereby symbolically saving her life from wretchedness, despair, and loneliness, and adding to his an everlasting continuance of mother love.

# **Some Aspects of Abandonment, Feeble-mindedness, and Crime**

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A total of 1,500 adult white married male criminals in Wisconsin were selected. These included 170 cases of abandonment, of which 35 per cent were feeble-minded although the feeble-minded constituted only 18.2 per cent of all criminals. Relatively, 22.3 per cent of the feeble-minded committed abandonment as compared with 8.88 per cent of the non-feeble-minded. The degree of feeble-mindedness was essentially without import.

Subjective causes for delinquency in abandonment cases were essentially economic distress and ill-health, with liquor playing far less part in these cases than in other offenses. Family size appears to constitute a factor in abandonment, with the larger families occurring more frequently among the feeble-minded. World War service, conjugal incompatibility, and individual poverty constitute factors in both abandonment and crime. The disruption of the childhood home of the individual appears to lead directly to the production of social unfits. The foreign born feeble-minded contribute 230 to 245 per cent of their proportion of crime as determined by population ratios.

This study was undertaken to investigate whether or not the offense of abandonment, including desertion, non-support, and abandonment of dependents, is more a dereliction of the feeble-minded than it is of those of normal or nearly normal intelligence. In addition it was hoped to discover, if possible, some underlying factors and distinguishing characteristics of this particular malefaction and offender, and likewise to develop any relationships bearing upon crime and the criminal in general.

The material was obtained from the examination of the inmates in the penal and correctional institutions of Wisconsin, made by the Psychiatric Field Service of the State Board of Control during the period of July 1, 1924, to July 1, 1927. From the total number of examinations only those histories of married white males were accepted. Thus the complications of race and sex were avoided and the unmarried excluded. A total of 1,500 cases was thus obtained. From these, a selection was made of all abandonment and all feeble-minded cases-numbering 382 individuals-which were divided into the three groups: (1) "Not Feeble-minded Abandonment Cases," numbering 109; (2) "Feeble-minded Abandonment Cases," numbering 61; and (3) "Other Feeble-minded Cases," numbering 212. The classification of "Feeble-minded" or "Not Feeble-minded" is based upon the results of the application of the Stanford Revision of the Binet-Simon Intelligence Tests given by a qualified psychologist, with the results confirmed in many instances by a retest and by a consideration of the history. The intelligence quotient of .75, accepted by the American Association for the Study of Feeble-mindedness, was taken as the dividing line between feeble-mindedness and non-feeble-mindedness.

That there is a very decided relationship between abandonment and mental deficiency was promptly ascertained. Among all of the 1,500 offenders, 273, or 18.2 per cent, are feeble-minded; whereas, among the abandonment offenders (who number 170), 61, or 35.9 per cent, are feeble-minded. Thus, although the feeble-minded constitute slightly less than one-fifth of the total number of offenders, they are responsible for nearly two-fifths of all abandonment cases.

This relative preponderance of the feeble-minded in abandonments is seen further by comparing the number of abandonment cases in the feeble-minded and the non-feeble-minded groups. Among the feeble-minded offenders (numbering 273), 61, or 22.34 per cent, are abandonment cases; whereas, among the offenders who are not feeble-minded (numbering 1,227), 109, or 8.88 per cent, are abandonment cases. That is, abandonment among the feeble-minded group is nearly three times as great as among the group not feeble-minded.

Accordingly, the correlation of mental delinquency with abandonment is not to be doubted, but whether that correlation is direct or indirect may not be stated here.

The degree of feeble-mindedness apparently does not influence this relationship to any appreciable extent. High grade morons (I.Q. of .60-.75) number 205. Among these, 45, or 21.95 per cent, are abandonment cases. Low grade morons (I.Q. below .60) number 68, and among these 16, or 23.52 per cent, are abandonment cases. It would seem, therefore, that the amount of intelligence possessed by the feeble-minded of any grade is insufficient to enable satisfactory coping with marital duties and responsibilities, with resultant dereliction.

Subjective causative factors underlying the offense of abandonment would be looked for most naturally among the "Reasons, Excuses, or Explanations" given by the delinquent. However, it must be recognized that the criminal's rationalized explanation of his malefaction, unless substantiated by case work, is unreliable scientifically, and conclusions drawn there from must be made cautiously. Nevertheless, the very remarkable agreement as to causative factors between the two groups of abandonment cases-the feeble-minded and the non-feeble-minded-is significant. Various outstanding reasons given are presented in Table I.

TABLE I  
CLASSIFICATION OF CASES ACCORDING TO CAUSES FOR OFFENSE AS STATED BY INDIVIDUAL

	Total	Economic Distress		Ill-Health		Liquor	
		Number	Percent-age	Number	Percent-age	Number	Percent-age
Not feeble-minded abandonment cases	109	25	22.9	13	11.9	10	9.2
Feeble-minded abandonment cases	61	14	22.9	9	14.8	6	9.8
Other feeble-minded cases	212	10	8.9	1	0.5	50	23.6
Criminal cases in general.	1,500	233	15.5	35	2.3	296	19.7

Other reasons given, for which no significance could be found, were drugs, bad company, fun and excitement, other, not stated.

The surprising absolute agreement in the first subjective reason between the two groups of abandonment cases, coupled with the extensive disparity between the two groups of mentally deficient offenders, is strongly indicative that economic distress is a genuine factor in the causation of abandonment, even as it is in the offense of theft.<sup>1</sup> Further, the fact that the feeble-minded, despite their decreased earning capacity, give no greater indication of economic distress as a causative factor than do their intellectual superiors with greater earning capacity, stamps economic distress as a purely environmental factor for this offense. Particularly is this inference substantiated by the low percentage for the group of "Other Feeble-minded Cases."

Likewise in regard to "Ill-health" the high percentages in both abandonment groups and the practically negligible percentages in other groups indicates that this explanation is not an unreliable chance rationalization but that it is a factor of very definite significance. These percentages are suggestive of the fact that the multiplication of family cares by sickness on the part of the wage-earner and the unavoidable economic distress arising therefrom constitutes a deciding factor in the production of anti-social conduct, especially among the feeble-minded. Thus it appears to be both an environmental and an individual factor.

That alcoholism is still a potent factor in the production of delinquency would be a most ready inference if the percentages given above could be accepted at face value. However, to accept those percentages without question would be a dubious procedure, for the excuse of "I was drunk and didn't know what I was doing" and similar excuses are too easily made for any great amount of reliance to be placed upon them. That liquor does play a part in individual cases cannot be questioned, but in how many cases is another matter. In Table I, the high degree of agreement between the two groups of feeble-minded cases, and the extensive variance between the abandonments and other cases all indicate very strongly that liquor plays a definitely recognizable and somewhat measurable part in the causation of delinquency as has been shown previously by Pearson and Elderton,<sup>2</sup> and by Howard.<sup>3</sup> Further, the equality of percentages for the abandonment groups designates liquor, like economic distress, as an environmental factor.

Supplementing the impressions derived from the consideration of "Economic Distress" and "Ill-health" are the data on the "Social and Economic Responsibilities" of the offender given in Table II. As may be seen, there are more large families and fewer families without children among the abandonment groups. This shows that the heavy responsibilities of family life do occur most frequently among the abandonment cases, thereby indicating the family itself as a genetic force in the offense and giving additional weight to the deductions drawn above concerning subjective factors. In an individual of weak moral fiber, the constant demands of a family and related economic stresses may serve to push the individual beyond the pale of proper social conduct.

Further, the greater number of children and the greater number of families with children occur in the feeble-minded groups. This is in accord with the well-organized opinion of

TABLE II  
CLASSIFICATION OF CASES ACCORDING TO SIZE OF FAMILY

	Not Feeble-Minded Abandonment Cases		Feeble-Minded Abandonment Cases		Other Feeble-Minded Cases	
	Number	Percent- age	Number	Percent- age	Number	Percent- age
None	4	3.6	1	1.6	53	25.0
One	27	24.8	20	32.8	48	22.6
Two	24	22.0	15	24.6	40	18.9
Three	17	15.6	7	11.5	22	10.4
Four	15	13.8	5	8.2	16	7.6
Five or more	22	20.2	13	21.3	33	15.5
Totals	109	...	61	...	212	...

Criminals, in general, without children: 447 cases, 29.8 per cent (married, male white).

Note: Other totals were not available.

TABLE III  
NUMBER AND PERCENTAGE OF CASES SERVING IN WORLD WAR

	Total	Individuals Serving in World War	
		Number	Percent-age
Not feeble-minded abandonment cases	109	22	20.2
Feeble-minded abandonment cases	61	9	14.8
Other feeble-minded cases	212	24	11.3
Criminal cases in general – married white males	1,200	256	21.3

authorities in general regarding the greater fecundity of the mentally deficient classes.<sup>4</sup>

A history of participation in the World War plays some part in abandonments, particularly in regard to individuals not feeble-minded. Also, it plays an easily recognized but difficultly measured part in crime in general. Table III is the table of military service. To evaluate properly these percentages, it must be borne in mind that the criminal population is entirely unselected as regards physical condition, age, freedom from dependents, qualifications which obtain in the selection of men for military service. Accordingly, a percentage of the unselected criminal group exceeds in actual numerical value the same percentage of the military class coming within the same grouping.

According to the Census of 1920, of the general population coming within the age limits of the offenders included in this study, 12.1 per cent saw military service in the World War.<sup>5</sup> This figure, however, greatly exceeds its true value at the time of this investigation, since the constituency of the general population has fundamentally changed during the time since the close of the war and the beginning of this investigation, due to the attainment of majority by large numbers of minors. Bearing these considerations in mind, two facts stand out markedly in Table III: first, the percentage of ex-service men among abandonment cases not feeble-minded is disproportionately high; second, the percentage of ex-service men among criminals in general is likewise disproportionately high. That one out of every five of the not feeble-minded abandonment cases is an ex-service man is strongly suggestive of a direct correlation between that service and the offense. However, it should be recognized that hasty marriages and post-war difficulties in civil readjustment account for a certain proportion. Aside from this, the disorganization of personality attendant upon military service constitutes an unquestionable genetic factor in this offense.

The second point mentioned above, the high percentage of ex-service men among criminals, has been previously noted by Lorenz,<sup>6</sup> who found over 25 per cent among Wisconsin offenders. This point reveals beyond doubt the potency of military service as a factor in delinquency. It plays a part directly by virtue of the disorganization of personality consequent upon military service and indirectly as a result either of post-war readjustment difficulties or of army-learned habits and morals carried over into civil life.<sup>7</sup> Further, when it is considered that the age of greatest crime incidence is eighteen to twenty-four years<sup>8</sup> and that the median age of criminals serving a term of one year or more is twenty-eight years,<sup>9</sup> the disproportion of World War veterans is markedly emphasized, inasmuch as they are beyond these ages. Accordingly, delinquency, even long afterward, must be regarded as a due toll of war.

The element of conjugal incompatibility undoubtedly plays a large part in the genesis of the offense of abandonment and the extent of divorce has been taken as an indication of

TABLE IV  
COMPARISON BY NUMBER AND PERCENTAGE OF CASES DIVORCED

	Total	Individuals Divorced	
		Number	Percent-age
Not feeble-minded abandonment cases	109	36	33.1
Feeble-minded abandonment cases	61	17	27.9
Other feeble-minded cases	212	31	14.6
Criminal cases in general – married white males	1,500	279	18.6
United States general population* – white, male, twenty-one or more years of age (percentage include widowed, separated, and divorced)	...	...	6.6

\* United States Bureau of the Census, *Abstract of the Fourteenth Census* (1920) pp. 216, 218, Tables 52, 53.

marital disharmony. The figures for divorce among the various groups are presented in Table IV. The extremely high percentage of divorces among abandonment cases indicates, in all probability, the role played by conjugal incompatibility. And the increase of 180 per cent in divorces among the delinquent class over and above those of the

general population may be, and probably is, an indication of the characteristic instability of the criminal classes. Also, this prevalence of divorce is strongly suggestive that the criminally inclined individual is fundamentally lacking in the personal and social qualities requisite for the maintenance of family duties.

Poverty, credited generally by authorities with having no inconsiderable part in the genesis of crime, is manifest among the abandonment cases, as is evident in Table V. In this table, the term "Poor" signifies a hand-to-mouth existence, the term "Fair" the possession of a small amount of taxable property, and the term "Good" a comfortable, secure living with educational and cultural opportunities available. Such designations, while inexact and uncertain and without much meaning in individual cases, do possess considerable value in aggregate usage. Although percentages showing the economic

TABLE V  
CLASSIFICATION OF CASES ACCORDING TO ECONOMIC CONDITIONS

	Total	Economic Distress		Ill-Health		Liquor	
		Number	Percent-age	Number	Percent-age	Number	Percent-age
Not feeble-minded abandonment cases	109	105	96.4	4	3.6	0	...
Feeble-minded abandonment cases	61	59	96.7	2	3.3	0	...
Other feeble-minded cases	212	183	86.4	29	13.6	0	...
Criminal cases in general – while, male, twenty-one or more years of age	2,350	2,096	85.5	342	14.0	12	0.5

status of the general population on a similar scale are not available, it is certain that the percentage of hand-to-mouth existences would fall short of that shown by criminals, and that in general the economic status of criminals is much lower than that of the general population.<sup>10</sup> This conclusion is concurred in by Gillin, Garofalo, and Sutherland in their respective texts upon criminology. The greater extent of poverty among the abandonment cases enhances the value of the inferences drawn above concerning the criminogenic force of economic distress in abandonment. Also, the similarity of the percentages for the two groups of abandonment cases emphasizes the environmental nature of poverty as a factor in the dereliction of abandonment. However, it is not to be inferred that a disappearance of poverty would herald the end of crime.<sup>11</sup>

Disruption of the childhood home of the individual also plays a part in the production of crime, as is indicated by Table VI. As may be appreciated readily, the percentage of disrupted childhood homes is surprisingly high. Shideler has estimated, apparently soundly and conservatively, that 2 5 per cent of all children, as compared with from 40 to 70 per cent of all delinquent minors,<sup>12</sup> come from disrupted homes. Healy,<sup>13</sup> and Healy and Bronner<sup>14</sup> have shown that at least 50 per cent of juvenile delinquents come from disrupted homes; and Sutherland, in his study of literature, has concluded that the disrupted home occurs twice as frequently among delinquent minors as among

TABLE VI  
CLASSIFICATION OF CASES ACCORDING TO HOME CONDITIONS  
PREVIOUS TO INDIVIDUAL'S EIGHTEENTH BIRTHDAY

	Total	Home Broken		Homes Disrupted by Death, Divorce, Desertion, or Separation	
		Number	Percent-age	Number	Percent-age
Not feeble-minded abandonment cases	109	70	64.4	39	35.6
Feeble-minded abandonment cases	61	44	72.2	17	27.8
Other feeble-minded cases	219	152	71.7	60	28.3
Criminal cases in general – while, male, twenty-one or more years of age	3,000	1,755	58.5	1,245	41.5

non-delinquents.<sup>15</sup> And the assumption that the same conditions would hold true among adults is justified by Table VI. Further, Lorenz, in his study of three hundred ex-service men in penal institutions, found 59 per cent coming from disrupted childhood homes.<sup>16</sup> Thus it may be considered that the disruption of the childhood home, probably through increased economic difficulties, the deprivation of educational and developmental opportunities, and the failure of the normal guiding influences of home training, constitutes a handicap to correct social development and may lead to the causation of antisocial behavior. The decreased percentages for the feeble-minded groups suggest only the decreased value of such homes.

Another important contributor to delinquency, including abandonment to an equal extent, is the element of unselected foreign stock, as may be judged from Table VII. It is at once evident that the foreign-born stock does produce considerably more than its due quota of our specified delinquents. Particularly is this so in regard to the feeble-minded groups which show an average of 166 per cent

TABLE VII  
CLASSIFICATION OF CASES ACCORDING TO NATIONALITY AND PARENTS

	Total	Native Born		Foreign Born		One Native One Foreign	
		Number	Percent-age	Number	Percent-age	Number	Percent-age
Not feeble-minded abandonment cases	109	55	50.5	42	38.5	12	11.0
Feeble-minded abandonment cases	61	24	39.3	32	52.5	5	8.2
Other feeble-minded cases	212	74	34.9	121	57.1	17	8.0
Criminal cases in general – while, male, twenty-one or more years of age	2,450	1,301	53.1	968	39.5	181	7.4
United States population in general* (white race only)	...	...	61.6	...	31.0	...	7.4

\*Abstract of the Fourteenth Census of the United States (1920), p. 99, Table 22.

of the expected quota of foreign parentage. Similar findings were noted by the Immigration Commission of 1910<sup>17</sup> and by Laughlin<sup>18</sup> and by the Massachusetts Department of Corrections." The inherent danger in unselected foreign stock is evident.

That the foreign-born individual of sound stock is not an undesirable is evident from Table VIII. As may be seen, both in regard to abandonment and to crime in general, the not feeble-minded foreign-born individual is responsible for no more than a fair share of crime as determined by population ratios, and is no worse than his native-born brother. But not so of the feeble-minded stock. As shown, 14.8 per cent of the population at large are of foreign birth as compared to 34.4 per cent to 36.6 per cent of the mentally deficient delinquents. This places the proportion of crime by foreign born feeble-minded offenders at 233 per cent to 247 per cent of their fair quota. The need of more extensive immigration culling is evident.

TABLE VII  
CLASSIFICATION OF CASES ACCORDING TO NATIONALITY AND PARENTS

	Total	Native Born		Aliens		Aliens with First Papers		Naturalized	
		Num-ber	Per-cent-age	Num-ber	Per-cent-age	Num-ber	Per-cent-age	Num-ber	Per-cent-age
Not feeble-minded abandonment cases	109	93	85.4	4	5	12	11.0	12	11.0
Feeble-minded abandonment cases	61	40	65.6	9	6	5	8.2	5	8.2
Other feeble-minded cases	212	134	63.4	40	15	17	8.0	17	8.0
Criminal cases in general – while, male, twenty-one or more years of age	3,000	2,556	85.2	180	66	181	7.4	181	7.4
United States population in general* (white race only, other percentages not available)	...	...	85.2	...	...	...	7.4	...	7.4

\*Abstract of the Fourteenth Census of the United States (1920), p. 97, Table 21.

## SUMMARY

The conclusions reached in this investigation are as follows:

1. There is a decided relationship between feeble-mindedness and abandonment, feeble-minded abandonments occurring proportionately nearly three times as frequently as abandonments of comparable individuals of normal or nearly normal intelligence.
2. The degree of feeble-mindedness, whether high or low grade, appears to have no influence upon the tendency to commit abandonment.
3. Economic distress appears to be a very considerable factor in the causation of abandonment, and as such it is of an environmental nature.
4. Ill-health on the part of the wage-earner appears to be a causative factor in abandonment and appears to be both environmental and individual in nature.
5. Alcoholism as a causative factor in abandonment appears slight in extent and environmental in nature.

6. Abandonment cases tend to have the greater number of families and the greater number of children as compared with other offenders, thereby indicating the element of the family as a genetic factor in the offense.
  7. A disproportionately high percentage of ex-service men are included among delinquents, particularly so among abandonment cases of normal or nearly normal intelligence.
  8. Conjugal incompatibility, as indicated by the extent of divorce, is a generative force in abandonment.
  9. Poverty of the individual seems to have a very definite part in the causation of abandonment as well as in the production of crime in general, and it appears to be entirely environmental in nature.
  10. An unduly large percentage of individuals of normal or nearly normal intelligence, for both abandonment and other offenses, come from disrupted homes of childhood.
  11. Individuals of foreign parentage are responsible for a definitely increased quota of crime in general, as determined by the population ratio.
  12. The mentally deficient individual of foreign birth is responsible for an overwhelmingly great excess of crime over and above his fair quota as determined by population ratios, an excess ranging between a 30 per cent and a 50 per cent, and manifest both in abandonment and in crime in general.
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<sup>1</sup> C. Lombroso, *Crime: Its Causes and Remedies* (1911), p. 133.

<sup>2</sup> Pearson and Elderton, "A Second Study of the Influence of Parental Alcoholism," *Eugenics Laboratory Memoirs* (1910), Vol. XIII.

<sup>3</sup> G. E. Howard, "Alcohol and Crime," *American Journal of Sociology*, XXIV (July, 1910), 61.

<sup>4</sup> M. F. Guyer, *Being Well-Born* (1920), chap. x, pp. 289-339.

<sup>5</sup> Milton H. Erickson, "A Study of the Relationship between Intelligence and Crime," *Journal of Criminal Law and Criminology*, XIX, No. q (1929), 607.

<sup>6</sup> W. F. Lorenz, "Delinquency and the Ex-Soldier," *Mental Hygiene*, VII (1923), 472

<sup>7</sup> J. L. Gillin, *Criminology and Penology* (1926) p. 241.

<sup>8</sup> Bureau of the Census, *Prisoners and Juvenile Delinquents in the United States* (Washington, D.C., 1918), p. 75.

<sup>9</sup> E. Sutherland, *Criminology* (1924) P. 91.

<sup>10</sup> W. A. Bonger, *Criminology and Economic Conditions* (1916), pp. 225, 226.

<sup>11</sup> B. Garofalo, *Criminology* (19x4), p. 147.

<sup>12</sup> E. H. Shideler, "Family Disintegration and the Delinquent Boy in the United States," *Journal of Criminal Law and Criminology*, VIII (1918), 715.

<sup>13</sup> William Healy, *The Individual Delinquent* (1918), Book II, chap. vi.

<sup>14</sup> Healy and Bronner, "Youthful Offenders," *American Journal of Sociology*, XXII (1916) 50-51.

<sup>15</sup> E. H. Sutherland, *Criminology* (1924), p. 143.

<sup>16</sup> W. F. Lorenz, "Delinquency and the Ex-Soldier," *Mental Hygiene*, VII (1923), 480.

<sup>17</sup> "Immigration and Crime," *Immigration Commission*, XXXVI (1910) pp. 14, 67.

<sup>18</sup> H. H. Laughlin, "Analysis of America's Modern Melting Pot," Hearings before the Committee on Immigration and Naturalization, House of Representatives (November 21, 1922), 67 Cong., 3 sess., Serial 7-C, p. 742.

<sup>19</sup> *Annual Report of the Department of Correction, Commonwealth of Massachusetts, Commissioner of Correction* (1920).

# An Interpretation of a Case of Biological Deviation

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## ***Introduction***

The following case is offered for consideration because of its social, medical, legal, and psychiatric interests. It represents a problem with which society must deal, for which clinical medicine can give no help and the law can offer only retaliative, punitive, and destructive measures, while psychiatry as yet affords only a little understanding of it and gives a small measure of hope mixed with despair.

## ***Reason for Commitment***

The patient, W. H., was committed to the state hospital following his third arrest in so many months for indecent exposure. On the first arrest he was merely reprimanded and the second time he was placed on probation, the violation of which culminated in his third arrest and commitment.

## ***Family History***

The family history was fairly adequate and revealed nothing of psychiatric significance. His forbears were all of good, substantial peasant stock. The home training was rather rigid and narrow, but not unkind or harsh.

## ***Personal History***

The patient is the second in a family of ten siblings, three of whom died in infancy from causes unknown. The others, exclusive of the patient, are living and well, and are all good substantial citizens.

The patient's birth, infancy, and childhood development were normal. He suffered the usual childhood infections, but was never seriously ill. He was alert, nervous, quick bright, and energetic in his play as a child and manifested no peculiarities or abnormalities until shortly before the age of puberty. At that time, when about ten years old, instead of becoming interested in the rough and tumble games of boyhood, he learned to bake and cook. Sweeping the floors and making the beds was part of his fun. Washing dishes, that bane of budding manhood, had greater lure than building caves or following the leader. Yet, when he did play with the boys on occasion, he held his own against them and was accepted in full fellowship.

At the age of puberty, which occurred between twelve and thirteen years, he began the practice of masturbation, accepting the practice as a matter of course. He never worried about it nor became greatly enslaved by the habit. Along with this experience a new and much more forceful sexual interest developed. This lay in staring at women's forms, commenting obscenely on their figures, and telling and listening to bawdy stories. This interest was never accompanied by any overt act, but even his interest in housework was second to it.

Patient graduated from a convent school at the age of fifteen. He was considered of average intelligence and did fair work. Following graduation, he went to work in the mills, learning the trade of weaving. He was always a capable and efficient workman, and was very well regarded by his employers, though generally disliked by his fellow workmen because of the contrast between his production and theirs. During dull seasons when the mills were closed he worked in his father's store, an occupation which greatly interested him. However, despite his daily work in the mills, he continued to do a considerable share of the housework, often arising early to anticipate his sister in the tasks.

His first heterosexual experience occurred at the age of seventeen and his part in the episode was passive throughout, the girl taking the initiative entirely. His attitude was one of mere interest and curiosity, and although he had an ejaculation, he derived no particular sense of satisfaction. His next experience occurred in a bawdy house where he was taken by some friends, who, knowing the intensity of his vocalized sexual interests, felt a need of greater sophistication in him. This experience afforded little more pleasure than the first, but it did lead him to frequent the place regularly in an effort to obtain satisfaction and to become a "regular fellow." Thereafter, he visited the bawdy house more frequently, sometimes taking his pleasure in normal fashion and striving to be like his fellows, and sometimes yielding to his unsatisfied sexual desires and taking his pleasure in the perverse form. There was gradually adding to his list of sexual pleasures cunnilingus and mutual masturbation, all of which offered him more pleasure than normal relations.

At the age of nineteen he contracted a Neisserian infection and was somewhat worried and frightened about it, though assured by his comrades that it was of little moment. A few years later he contracted syphilis and was intensely worried about it. The physician whose aid he sought outlined a course of treatments, charging him \$25.00 for the first one. The patient was then plunged into despair since he could not afford further treatments, and yet he had heard alarming tales of the horrors of untreated syphilis. He paced the streets in an anxious, frightened, and tearful state of mind, wondering what to do since he was without funds and he suspected his father's stern and unforgiving attitude. As he walked along, absorbed in this problem, he met a sympathetic stranger, and was advised, since he could not pay for treatment, and that his parents would not, he could easily obtain free treatment by getting sent to jail for a few months. The patient readily accepted the suggestion and joined this stranger's crew of robbers, breaking into a store that night. The patient was easily caught by the police, and because he played a minor part, was given a sentence of six months, and at the same time free treatment for

his syphilis. Following his release from jail he continued in his former habits of life, seeking the company of prostitutes frequently and practicing perversions more often than normal relations, since he felt that such a course rendered him less likely to contract disease and at the same time afforded him infinitely more pleasure and satisfaction.

At the age of twenty-five he met the daughter of a fairly respectable and substantial family to whom he became greatly attracted. During the year of courtship that followed she successfully resisted his attempts at pre-marital relations and he confided to her that he was taking "sal hepatica" almost daily to keep away from other women. Following marriage, sexual relations were normal, though his demands were excessive, pregnancy occurring within three months, following which the patient's wife discovered that he was practicing coitus interruptus and then secretly masturbating. The patient readily admitted this to her and then explained that he derived more satisfaction from onanism than normal relations with her. During the latter part of this pregnancy the patient returned to his celibate sexual habits. Nevertheless he continued to have regular congress with his wife, lest she suspect him. In these extramarital affairs he usually resorted to perversions. This infidelity he kept concealed from his wife for the next five years, during which time he was a model husband in helping with the housework, taking care of the babies that arrived regularly every two years, and in working industriously to support the family. However, he was often harsh, disagreeable, and irritable, and at these times he was extremely inconsiderate and excessive in his sexual demands in a vain and frantic attempt to educate himself sexually to respond like other men and to escape from the cravings of auto-erotism and perverted desires.

About three years previous to his commitment his wife began hearing rumors about his sexual exploits and upbraided him concerning them. The patient ridiculed her reproaches and boastfully told her that she was helpless, that he was too smart for her, and that she could never get the legal proof necessary to send him to jail. He declared that he was entitled to sexual pleasure, and since he could not get it from her he would seek it elsewhere. Bitter quarrelling resulted and for three months they did not speak to one another. Finally their quarrels were satisfactorily adjusted and they lived fairly happily except for patient's excessive demands. Then, after some months, the wife discovered that he had again fallen back into his old habits. This gave rise to further quarrelling, and then the patient openly returned to his former licentiousness, and for the next year spent every weekend in company with some mistress and often during the week arising early in the morning and visiting some brothel before going to work. At the same time, because of his absolute insistence, he maintained marital relations with his wife, often practicing coitus interruptus followed by masturbation.

A year before admission he underwent an operation for hernial repair and appendicitis from which he made good recovery. Following this more quarrelling about his sexual habits occurred with finally a readjustment with his wife and a forsaking of his practices. Home life was then fairly happy when suddenly a period of economic distress developed because of a business depression. Work was scarce and the mills were frequently closed two or three days a week. The patient's wife had to seek employment to aid in supporting the family of five children, and often the patient was left alone to care for the family

while his wife was away at work. He worried greatly about this, since, despite his conduct, he was intensely attached to his children and his home. He tried to compensate his wife at this time for the scurvy fashion in which he had treated her. He lessened his sexual demands upon her, and expressed contrition for his misconduct, and strove in every way to merit her favor. At the same time he worried increasingly about the economic straits the family was reaching, and daily sought to secure additional employment. Then suddenly he developed the habit of going into a dark room every night and staring into the houses across the way in the hopes of seeing women undressed. Then one day he rapped on the window to attract the attention of passing school children and exposed himself, following which he masturbated in the next room. The next day he exposed himself to a woman and a girl, masturbating immediately afterwards in the next room. After several such episodes he was arrested and released with a severe reprimand. The patient's only explanation at that time was that an uncontrollable influence forced him to such conduct, and that it gave him a sense of infinite satisfaction and relief from his worries for the family. Several weeks after his first arrest he was again apprehended for a series of repeated exposures. This time he was placed on probation with drastic warning. Three weeks later he was again caught in the act, after a number of complaints, and was committed to the state hospital for observation.

### ***Physical Examination***

Physical examination upon admission revealed a French-Canadian male, thirty-five years of age, of athletic habitus, in good physical condition except for gingivitis, much dental repair work, imbedded tonsils, and old healed appendectomy and herniotomy scars.

### ***Laboratory Findings***

All laboratory findings were within normal range except the serological, which revealed a negative Kahn but strongly positive blood Wassermann. The cerebrospinal fluid was suspiciously positive and the colloidal gold and mastic readings were respectively 1111121200 and 01332. Other findings were of no import.

### ***Mental Examination***

Preliminary examination upon admission found the patient to be friendly and agreeable, frank and accessible. He discussed his troubles and answered questions fully and completely, attributing his situation to the habit of masturbation and giggling and simpering in an exceedingly foolish fashion as he told his story. When the physical examination was made, the patient threw off all covers and demanded to know if the examiner did not think his figure lovely and perfect, giggling foolishly as he did so. Though in excellent contact with his environment he seemed to have no critical appreciation of his situation.

Formal mental examination performed five days after admission revealed an alert intelligent thirty-five year old man who discussed himself spontaneously and fully, co-operating in every way. While he seemed to have an excellent appreciation of his

situation, nevertheless he would at times giggle foolishly and ask boastfully, "I'm pretty good, ain't I?" and then the next moment would weep bitterly, lamenting his situation and worrying about what would happen to his family. He gave a very complete account of his entire life including his sexual activities, and blaming present difficulties upon parental failure to instruct him concerning masturbation, and his native endowment with "hot blood." His exhibitionism he attributed to an uncontrollable impulse that forced him to such conduct and the sense of relief from his worries which it afforded him. The patient's thought processes were clear and coherent and his ideational content revealed no delusions though questioned specifically for the various types. No disorders in the perceptual field were elicited, and there was no impairment of the sensorium. As for insight, the patient's own statement illustrates best: "I have done a shameful thing. I don't know why I did it. But I've learned my lesson now."

### ***Clinical Course***

The patient's clinical course was one of gradual and satisfactory improvement. He rapidly lost his silliness and foolishness, and his reactions became normal in every regard. He developed a sound appreciation of his predicament and appeared to have a full realization of the utter undesirability of his social behavior. He wrote many letters to his wife expressing his contrition for the hardships he had caused her and promising complete reformation for the future. In this he appeared to be wholly sincere and there was no attempt on his part to gloss over his offenses or to minimize them in any way. On the contrary, he seemed to have a healthy sound appreciation of himself and the difficulties confronting him. He was soon given parole privileges and proved himself to be fully co-operative and trustworthy. For his luetic condition arsenicals were administered with good results. After several months he was discharged and to all information available at the present time he is adjusting satisfactorily in the community.

### ***Diagnosis***

For classification purposes, he was labeled Constitutional Psychopathic Inferior without Psychosis. No attempt was made to determine the part played by his luetic condition since the extent of such a role would be a matter of pure speculation. Further, it was believed that his conduct might well be explained on the basis of his biological deviation which led to progressive maladjustment until the situation was beyond his control. Nevertheless, the label applied to him was recognized as being wholly inadequate to describe him, but no better recognized term seemed available.

### ***Interpretative Analysis***

Fundamentally, this patient is a biological deviate whose sexual nature is disorganized and distorted by an ambivalence of interests leading to various forms of perversions and arresting the full rounded development of his powers of sexual expression.

At the boisterous age of boyhood when mother's apron strings are galling and housework degrading, he was busy making beds and sweeping floors instead of fighting and

following the leader. But, even so, he could and often did mix successfully with his fellows, and his strength of personality compelled their full acceptance of him.

Then at the age of puberty, when girls are anathema, and the narcissistic role holds sway, masturbation had little interest for him. On the contrary, he was precociously heterosexual, staring at women, commenting obscenely upon their figures, and listening avidly to erotic stories. Yet, despite this intense erotic interest in the opposite sex, remarkably so because of the unquestionable opportunity afforded by his social status, he made no effort to express this interest actively until adolescence. Then his first experience was conditioned by his passivity and disappointment since he obtained little pleasure and no real satisfaction. He strove to correct this by regularity of visits to brothels, but all efforts to secure satisfactory sexual relations in normal fashion were defeated. He turned to perversions, deriving from them infinitely more pleasure than from normal connections. At other times, endeavoring to emulate his fellows and to achieve their sense of accomplishment, he would establish normal relations, but instead of that primitive needed sense of masculine satisfaction reaped only misery and fright of Neisserian and luetic infections. He then demonstrated the innate weakness of his inhibitive powers and the faultiness of his judgment by participating in a robbery as a means of securing adequate treatment which he himself could not purchase. These experiences seriously weakened his normal sexual tendencies and strengthened the trends of his biological deviation. Marriage was then essayed in an endeavor to reach the plane of sexual adjustment and contentment attained by his fellow workmen. But normal femininity in the dull placidity of average marital life could give him little. All it gave him was a continuance of his interests in domestic tasks and he shared his wife's duties, never graduating, even in that sphere, to the full masculine level. Since marital relations were unsatisfying, recourse to masturbation resulted, but even that failed to fill for him the void of sexual expression. Accordingly, he returned to his bawdy house habits, seeking, in the very perversity of his social conduct and the perversions there available, a fuller sexual satisfaction, maintaining at the same time normal marital relations, sometimes to wild excess, in a vain endeavor to establish a balance in his instinctive drives, and to achieve that sense of sexual normality and security possessed by his fellows. But rumors of his misconduct came into his home with disrupting force, threatening to disintegrate it and to rob him of his family, in which he was intensely interested, though probably more in a maternal and feminine rather than a paternal masculine fashion. Torn between conflicting desires, after a wild and reckless abandonment to sexual claims, he yielded to the burden of marital and paternal duties, forsaking his hopes in instinctual adjustment. But scarcely had he done so when a new and equally serious difficulty harassed him. Economic distress, in no wise his fault, and against which he had no defense, threatened the security of his home. The one stabilizing influence upon which he could rely was threatened. He struggled against it, frantically, fearfully, but helplessly. He had to do something, yet, what could he do? In the disorganization of his personality established by his biological deviation and the conflicts of his desires, he turned again to sexuality, exhibiting a new perversion which society could not condone.

In the quiet of a state hospital, free from the cares and responsibilities of life, he was aided to a new understanding of himself. How well he learned his lesson, and how much it will help him is entirely problematical, and the possibility of a happy satisfied life, the rightful desert of every man, is highly questionable. But at least those who dealt with him understandingly learned somewhat of the utter inadequacy of social, clinical, legal, and psychiatric measures.

# **Marriage and Propagation Among Criminals**

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In the preparation of this article, two previous papers have been drawn upon freely for data and interpretations with the addition of further data from the original source. The papers utilized are "Some Aspects of Abandonment, Feeble-mindedness, and Crime," manuscript accepted for publication by *American Journal of Sociology*, 1929; and in particular, "A Study of the Relationship between Intelligence and Crime," *American Journal of Criminal Law and Criminology*, February, 1929, Vol. 19, No. 4, Part 1, pp. 592-635, and also, *Medico-Legal Journal*, Vol. 45, Nos. 4 and 5, 1928.

## **INTRODUCTION**

Marriage has long been recognized generally as a significant stabilizing influence in individual and social life.<sup>1</sup> With apparent good reason, it has been accredited with an actual moral force in the prevention of undesirable social conduct by providing happiness and stimulating worthy activity.<sup>2</sup> To how great an extent it may serve as a stabilizing influence and as a preventative of unsocial or antisocial conduct is a question worthy of investigation. Accordingly, an attempt is made herewith to throw some light on this question by a study of over 3,500 criminal cases, with a view to the establishment, either positively or negatively, of the possible existence of such stabilizing and prophylactic influences of marriage upon the individual criminal. Since the possibilities of absolute and direct proofs are vague and questionable, indirect evidences of such marital influences were sought and are presented here.

## **MATERIAL AND METHOD**

The material for this study was obtained from the case history files of the Psychiatric Field Service of the State Board of Control of Wisconsin. In these files are kept records of the routine physical, sociological, psychological and psychiatric examinations made of *all* individuals admitted to the various state penal and correctional institutions as well as those becoming eligible for parole therefrom. The institutions yielding material for this investigation were the Milwaukee County House of Correction at Milwaukee, the Wisconsin State Prison at Waupun and the Wisconsin State Reformatory at Green Bay. The time covered by this observation extends from July 1, 1924, to March 1, 1929, a period of nearly five years. From the total number of examinations made in this period, a selection was made based on race, sex and age, only white males twenty-one years of age or more being taken. These limitations were established to avoid the complications of race and sex and to include only individuals of marriageable age, thus excluding minors who may not in complete fairness be compared with adults, particularly in such a study as this. A total of 3,643 cases was obtained in this wise.

These cases were then classified first according to the level of their intelligence, i.e., whether feeble-minded or not feeble-minded. This classification was made to render an added significance to the findings in regard to marriage and its results among criminals. It should be stated here that the grading of intelligence was done at the time of examination by the application of the Stanford Revision of the Binet-Simon Intelligence Tests. These tests, were applied by a qualified psychometrist with the results confirmed, in many instances, by a retest. In addition, the history of the individual was always given its due weight in the diagnosis of feeble-mindedness or non-feeble-mindedness. The intelligence quotient, or I.Q. as it is commonly termed, of .75, approved by the American Association for the Study of Feeble-mindedness, was taken as the dividing line between mental deficiency and non-feeble-mindedness. Also, in accordance with the table given by Richmond<sup>3</sup> and agreeing with Terman's classification,<sup>4</sup> the I.Q. of .60 was taken as the dividing line between the high grade and the low grade feeble-minded. Next, maintaining the first classification as to the level of intelligence because of the added weight given thereby to the findings in regard to marriage, the cases were secondarily classified according to marital status. Third, those married were then classified in accordance with family size. A careful analysis was made of the respective tables thus obtained, both for any intrinsic significance possessed and for any bearing they might have upon one another and upon the theme of this paper.

## **DISTRIBUTION OF INTELLIGENCE**

Since the recognition of the utility of studying the individual criminal as such, there has been a growing realization of the necessity of understanding and appreciating the extent and nature of his mental and intellectual endowments in order to comprehend his economic and social activities. With the development of standardized psychometric tests, a valuable means of estimating the intellectual endowment of the individual became practicable. The results of the application of these tests to the offenders included in this investigation show the following general distribution

	<i>No. of Cases</i>	<i>Per cent of Cases</i>
Non-feeble-minded (I.Q. .75 or more)	2,587	71.01
Feeble-minded:		
High Grade Morons (I.Q. .60 to .75)	332	22.84
Low Grade Morons (I.Q. below .60)	224	6.15

Very evident from the above table is the astonishingly high percentage of mentally deficient individuals among criminals, if 3,643 cases may be considered a fair sample of delinquents. In this particular investigation, the percentage of feeble-minded is shown to be 29. The magnitude of this may be better appreciated when it is realized that the ratio of the feeble-minded in the general population has been placed at one in two hundred by a series of surveys in various states and confirmed in results by similar findings in Europe.<sup>5</sup> Terman, however, in a study of 1,000 unselected school children, found approximately 3 per cent with intelligence quotients below 75;<sup>6</sup> and Gillin, after a careful consideration of the literature on this question, has estimated a proportion of 2 per cent of the general

population as mentally deficient.<sup>7</sup> Thus the ratio of feeble-mindedness among criminals is here shown to be at least 13 to 50 times greater than that of the general population! These findings have been repeatedly confirmed by other investigators. Kuhlmann has found an average of 29.1 per cent of the inmates of the reformatories of Minnesota feeble-minded,<sup>8</sup> Slawson, working with delinquent boys in New York State, found 20 to 25 per cent feeble-minded.<sup>9</sup> Anderson, after his investigations of the problem, reached a conclusion that 27 to 29 per cent of all prisoners are mentally deficient;<sup>10</sup> and the Psychiatric Field Service of the State Board of Control of Wisconsin, in a total of over 8,000 examinations of delinquents, has found an average of 27 per cent of all offenders feeble-minded.<sup>11</sup>

Accordingly, the genetic force of mental deficiency in the production of crime is not to be doubted. Indeed, Goddard, after his long study of feeble-mindedness, reached the conclusion that every mentally deficient individual is a potential criminal.<sup>12</sup> The seriousness of this hardly needs mention. Whether the role played by feeble-mindedness in the production of crime is direct or indirect is not a proposition to be decided here, nor does that question lessen the grave significance of mental deficiency in relation to delinquency. Indeed, this evident relationship between mental deficiency and crime intensifies the need of constructive social legislation for the amelioration of the problem of feeble-mindedness and its entailed problem of criminality. It also suggests the great need of scientific investigation, particularly of the marital tendencies, status and results, of the mentally deficient and mentally defective classes with a view toward the elimination of the species.

The second revelation of the above table is that fully 20 per cent of the total number of criminal feeble-minded or 6 per cent of all delinquents coming within the scope of this investigation are low grade morons. The significance of this is better appreciated when it is realized that the lack of intelligence in low grade morons is so great that authorities are agreed that they can be cared for properly only within the confines of an institution designed for that purpose.<sup>13</sup> Indeed, the capacity of the low grade morons for social and moral responsibility at law is nil according to Richmond<sup>14</sup> and Kuhlmann<sup>15</sup> after long study of the problem, and these investigators feel that even in regard to the high grade moron legal responsibility is frequently "debatable and subject to proof." Yet these delinquents with such marked deficiency of intelligence and with their manifest and proved social and moral irresponsibility are allowed to serve their terms unrecognized legally for what they are. Then they are discharged and permitted to return to free society for which they are unfit socially, morally and economically, there to reproduce their kind and to continue their contribution to the crime problem. That they will is not a matter of mere pessimistic speculation, since, to the low grade moron, consideration for others, altruism, probity, and moral and ethical principles are vague incomprehensible things. In his intellectual blindness he gropes and stumbles through the social maze of life, wandering into forbidden paths all along the way, knowing no better and unable to know better. And what is worse, the road to marriage and the reproduction of kind is open to him without manner or form of restriction. The existence of the species to the extent of 6 per cent of all criminals proves the continued propagation of this socially unnecessary and destructive class which must be eliminated if any approach to the social millennium is ever to be made.

## DISTRIBUTION OF MARRIAGE

Since the criminal is essentially unstable in nature and character, a decreased incidence of marriage or an increased disruption of marriage might reasonably be expected among his class. In substantiation of this inference is the report of the census bureau which states that the unmarried among criminals outnumber the married more than two times per 100,000 population of the age of 15 years or more.<sup>16</sup> However, this is undoubtedly a distortion of the truth since the criminal population with that age limit cannot be judged simply by mere division into married and unmarried groups. The reason for this lies in the fact that, according to the census reports of 1904<sup>17</sup> and of 1923,<sup>18</sup> the age of greatest crime incidence lies between fifteen and twenty-four years. Accordingly, the criminal population with the above age limit would include a disproportionately large number of juveniles and adolescents not yet of marriageable age. Thus the proportion of the unmarried would be illogically increased. Nevertheless, it is entirely reasonable to presume that there is a disproportion between the married and the unmarried delinquents in comparison with similar figures for the general population. In this investigation, only individuals of undoubted marriageable age, i.e., twenty-one years or over, have been taken and the findings in regard to their marital status are given in the following table together with similar findings for the general comparable population of the United States.<sup>19</sup>

	Unmarried		Married		Divorced*	
	No. of Cases	% of Cases	No. of Cases	% of Cases	No. of Cases	% of Cases
	1,118	43.22	1,469	56.78	346	23.55
Not Feebleminded	442	41.86	614	58.14	132	21.50
Feebleminded						
U. S. General Comparable Pop**.		25.10		74.90		9.66***

\*Percentages based on total of married individuals for both criminal and general populations.

\*\*Male, white, and twenty-one years or over.

\*\*\*Includes both widowed and divorced.

As may be readily seen, there is no striking disproportion between the married and the unmarried among the criminal classes. The one status obtains almost as frequently as the other, with a majority in favor of the married. Comparison, however, with the similar percentages for the general comparable population of the country shows a decidedly lower incidence of marriage among criminals of all types. Interpretation of this phenomenon is difficult. It may signify that there is a stabilizing influence of marriage with a greater proportion of the unmarried running afoul of the law; or it may mean that the internment of the criminal often constitutes an actual physical barrier to the consummation of marriage; or it may merely denote that the fundamental constitution of the delinquent is of such a nature that he is not infrequently antagonistic toward the assumption and maintenance of marital duties and thus fails even to experience contact with any presumably stabilizing influences of marriage. At any rate, marriage, together with any of the beneficial influences it may exert upon the individual, is of decidedly less frequent occurrence among the criminal population than among the general population.

A second point of interest in the above table is the fact that the percentage of married individuals among the feebleminded is equal to that for the non-feebleminded. Evidently,

even the combined defects of criminality and mental deficiency fail to constitute a barrier to the marriage of the unfit with the consequence that the propagation of the socially undesirable classes is given opportunity to keep pace with that of the desirable classes. This fact emphasizes the need for proper recognition of this problem and provision for its solution.

Further, that over 50 per cent of criminals, feebleminded as well as non-feebleminded, are married and thus propagating their species with the sanction of society is somewhat disheartening. However, a more hopeful aspect of the matter is obtained by bringing into consideration similar statistics in regard to the marriage of college 'graduates who undeniably represent the better stock of the land. Investigation into the alumni records of Harvard and Yale for the period of 1851 to 1890 show the percentages of male graduates married ranging between 74 and 78 per cent.<sup>20</sup> A similar investigation at Syracuse University covering a period of 50 years reveals 81 per cent of the male graduates married<sup>21</sup> and similarly, Stanford University has a percentage of 73.2 per cent of the men of the classes from 1892 to 1900 married.<sup>22</sup> Thus, a comparison of these percentages with those of delinquents affords a hopeful eugenic outlook. Likewise, it emphasizes the lower incidence of marriage among delinquents as compared with the incidence among the better classes. The figures given in the above table are less than their ultimate value inasmuch as more marriages will occur among the offenders herein under investigation, but the possibility of their marriage percentage ever reaching the level of that of college men is extremely doubtful since the likelihood of marriage decreases progressively with each year of life after the first half of the third decade.<sup>23</sup>

Another instructive aspect of the above table is the unusual frequency of marital disruption among the criminal classes as compared with the general population of the country. Divorce alone is accountable for more than twice as much marital disruption among delinquents as divorce and death together for the population at large. However, it should be borne in mind that conviction for felony constitutes grounds for divorce in Wisconsin and several other states. Though this fact does account for some of the increased disruption, it is not conceivable that it would account entirely for the markedly higher incidence of divorce among criminals. Particularly does this seem to be more tenable since the proportion of divorce is essentially the same for both the feebleminded and the non-feebleminded. This equality of percentages and the high incidence of divorce strongly substantiates the inference that the criminally-minded person, regardless of intellectual endowment, is essentially lacking in the personal and social requisites for the assumption and continuance of marital duties. Or it may be that this marked prevalence of divorce indicates the failure of the stabilizing influences of marriage and home life to react favorably upon the criminal because of his inherent instability. However, from a eugenic point of view as regards the propagation of the unfit, this high percentage of disrupted marriages among delinquents is a hopeful sign.

## **SOCIAL AND ECONOMIC RESPONSIBILITIES**

Related in significance to the table above on the *Distribution of Marriage* is the table on *Social and Economic Responsibilities*. Data for this table, which represents only the

married cases, were obtained for 916 of the Not Feeble-minded Cases and for the entire 614 Feeble-minded Cases. Following is the table:

<i>(Married Cases Only)</i>	<i>Not Feeble-minded (916 Cases)</i>	<i>Feeble-minded (614 Cases)</i>
	<i>Per cent</i>	<i>Per cent</i>
Without Children	246 - 26.36	126 - 20.52
With One Child	247 - 26.96	152 - 24.76
With Two Children	171 - 13.67	117 - 19.05
With Three Children	92 - 10.04	63 - 10.26
With Four or More Children	160 - 17.47	156 - 25.41
(Average of Six)		
Average Number of Children per Family	1.99	2.46
Average for Entire Criminal Group		2.18

It will be noted at once that the greater number of families with children and the greater number of children occur in the mentally deficient group. This is quite in accord with the findings of other investigators and with the generally conceived opinion of the greater fecundity of the classes of deficient mentality.<sup>24</sup> How serious is the fecundity of the mentally defective and deficient classes as shown here may be inferred from a comparison with similar data appertaining to other classes of society. Thus, an investigation of the families of 1,000 American men of science who had attained some degree of distinction showed 22 per cent childless and an average of less than two surviving children for each one.<sup>25</sup> A similar investigation conducted in regard to 1,986 prominent Methodist clergymen showed 97.44 per cent married with only 11 per cent childless, 12.5 per cent with one child, 20.4 per cent with two children, 18.5 per cent with three children, and the remaining 37.6 per cent with four or more children, an average of 3.<sup>26</sup> children for each individual.<sup>26</sup> Also, an inquiry made in regard to graduates of Harvard and Yale revealed an average of 2.17 children per individual.<sup>27</sup> Another investigation of the Harvard graduates of 1894 revealed 20 per cent childless, 13.1 per cent with one child, 18.1 per cent with two children, 22.5 per cent with three children, and 25.5 per cent with four or more children, and an average of 2.44 children per individual.<sup>28</sup> This reveals the college-bred man of Harvard fully as prolific as the feeble-minded delinquent and gives him a very definite lead over delinquents in general. However, it must be borne in mind that the above table does not give the ultimate or true values since more children will be born in the families of the delinquents under study. Nevertheless, when the increased infant mortality of the poorer classes is considered, likewise the greater prevalence of diseases tending to produce sterility, the markedly increased prevalence of disrupted marriages, and the separation of husband and wife occasioned by prison terms, the lead of the college-bred man in family size is more significant than appears upon casual inspection. Further, it has been estimated by Kehrer that the proportion of childless marriages for civilized countries ranges between 10 and 15 per cent,<sup>29</sup> which means that the ordinary middle-class citizen, taking the criminalistic and college-bred classes as the extremes, bears the burden of restocking the population. This renders less alarming the belief of the over-fecundity of the mentally unfit classes.

Nevertheless, that over 50 per cent of the criminal classes are married and tend, despite the prevalence of disrupted marriages, to reproduce themselves to the same extent almost as our leading intellectual classes constitutes an indisputable ill to society. Nor can there be any doubt of the gravity of this when it is realized that for the 38,820 adult male delinquents in custody,<sup>30</sup> there are only 508,714 males, minors and adults together, enrolled as students in universities, colleges and professional schools in the United States.<sup>31</sup> This near equality between the college-bred population and the criminal population emphasizes again the need of social intervention in the propagation of the mentally defective and mentally deficient classes in order to ameliorate the problem of criminality.

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# **Study of the Relationship Between Intelligence and Crime**

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## ***INTRODUCTION***

The question of delinquency, which has ever constituted a grave social problem, is arousing a constantly increasing interest as a result of the recent application of scientific methods to the study of crime in all its varied phases. Indeed, before a truly scientific interest could be developed, it was necessary that there be a development of those sciences which throw light upon human conduct and behavior such as biology, psychology, sociology, and psychiatry, and particularly so this last-named science. However, the great significance of the problem is scarcely appreciated as yet, and the field of study, so wide and fertile, is relatively untouched, although significant progress has been made in some directions. Possibly, the most notable of advances made has been the beginning recognition of delinquency as a problem belonging almost entirely to the field of psychiatry rather than to the legal realm or to sociology, that field of normal human relationships. The avenues of approach for the study of this problem of delinquency and the aspects for consideration are exceedingly numerous, since every crime is the product of the complexities of human nature reacting in devious and incomprehensible ways to the complexities of the social order. Formerly, only the dull prosaic facts of social and economic existence were considered the sum total of essential knowledge concerning the criminal. Quite otherwise now, a study of crime necessitates in addition an investigation into the behavior reactions, mental attitudes, intellectual and emotional endowments, physical development, habits, predilections, idiosyncrasies, and all possible intimate and personal details of the individual offender in his daily life. Accordingly, any attempt at investigation of this question of such great moment to the welfare of society must be confined of necessity to one particular phase. Nor can any investigation hope to do more than add some small fact to the aggregate of knowledge essential for a proper evaluation and comprehension of this most complex and intricate problem of human relationships. Only in this fashion may be reached, sometime in the remote future, a solution to this serious ill of civilization.

In this investigation, realizing that the intellectual endowment of the criminal might well constitute a significant force in anti-social behavior, an attempt has been made to throw some light upon the problem of crime by a study grounded fundamentally upon the grade of intelligence possessed by delinquents. Especially was this felt to be a valuable aspect for study since a careful survey of the literature revealed that practically nothing of a detailed and systematic nature had been done to ascertain the actual force exerted by the intellectual endowment upon criminalistic tendencies. Indeed, the literature obtainable yielded nothing more than broad speculations and generalizations upon feeble-mindedness and crime, with no attempt to specify or determine actual significant details and

relationships of intelligence and criminality. This has been attempted in this investigation by grouping delinquents according to the general level of intelligence possessed, and then analyzing these groups in accordance with various pertinent details concerning the individual. By so doing, it was hoped to reveal various criminological trends and tendencies together with group differences and similarities, divergencies and peculiarities, direct and indirect relationships significant either positively or negatively of the influence exercised by intelligence, or the lack thereof, upon the manifestation of anti-social behavior, or tending in any way to explain the phenomena of crime. In addition, an effort was made to note any outstanding characteristics or associated facts becoming manifest during the course of the investigation which might serve to enable a better understanding of offenders either singly or collectively.

## **MATERIAL AND METHOD**

The material for this study was obtained from the Case history files of the Psychiatric Field Service of the Wisconsin State Board of Control. In these files are kept complete records of the routine examinations made by the Psychiatric Service of *all* individuals admitted to the various penal and correctional institutions of the state or applying for a parole therefrom. These examinations are of a four-fold nature, embracing the psychiatric, physical, psychological, and sociological aspects of each individual case, the original purpose of the examinations being the betterment of the institutional and post-institutional welfare of the individual delinquent. The institutions yielding material for this undertaking were the Milwaukee County House of Correction at Milwaukee, the Wisconsin State Prison at Waupun, and the Wisconsin State Reformatory at Green Bay. The period of time covered by this observation extends from July 1, 1926 to June 1, 1928, a period of nearly two years. From the entire number of examinations made for this period of time, a selection was made, based on sex, race, and age, and only those histories of white males twenty-one or more years of age were accepted, all duplicates being discarded. This was done to avoid the complications of sex and race and to exclude minors who may not, in all fairness, be compared to adults. A total of 1690 individual cases answering to the above specifications was thus obtained, and these cases were then divided into the four following groups

1. *Normal Intelligence Group* comprising..... 852 cases
2. *Subnormal or Low Intelligence Group* comprising..... 327 cases
3. *High Grade Feebleminded Group* comprising..... 408 cases
4. *Low Grade Feebleminded Group* comprising..... 103 cases

It may be very well stated here that the particular grade of intelligence possessed by the individual, if not obviously normal as shown by the scholastic record, was determined at the time of examination by the application of the Stanford Revision of the Binet-Simon Intelligence Tests. This was done by a qualified psychologist, with the result of the first examination confirmed, in many instances, by a retest. In addition, the history of the individual was regarded as confirmatory, and always considered in the diagnosis of the degree of intelligence possessed, particularly so in regard to the diagnosis of feeble-mindedness. The Intelligence Quotient, or I.Q. as it is commonly termed, of .75,

accepted by the American Association for the Study of Feeble-mindedness, was taken as the dividing line between mental deficiency and nonfeeble-mindedness. In establishing this Intelligence Quotient as the dividing line, no particular weight has been accorded the present academic dispute among psychologists concerning the most acceptable and exact dividing point. Whether the dividing line is an Intelligence Quotient of .75, .70, .68, or .65, is essentially irrelevant to the purposes of this investigation, since it is desired only to determine the existence, positively or negatively, of an influence exerted by intelligence or the lack thereof upon criminality. There is neither hope nor expectation of determining the exact degree of this influence nor of ascertaining the exact weight or quality of any possible relationship. Further, when the very nature of the human material dealt with is considered, it may be conceded readily that an intelligence quotient of less than .75, combined with the manifest incapacity of satisfactory economic and social adjustment, as evidenced by conviction for criminality, justifies classification as feeble-minded from medical, social, and legal aspects, if not entirely so from the viewpoint of academic psychology.

The range of the Intelligence Quotient for each of the intelligence levels indicated by the above groupings is presented in the following table taken from Richmond<sup>1</sup> and agreeing with Terman's classification:<sup>2</sup>

	Intelligence Quotient Range
<i>Normal Intelligence</i> .....	.90 or more
<i>Subnormal or Low Intelligence</i> .....	.75 to .90
<i>High Grade Feeble-mindedness (High Grade Morons)</i> .....	.60 to .75
<i>Low Grade Feeble-mindedness (Low Grade Morons)</i> .....	Below .60

The respective groups were then carefully analyzed in accordance with the tables given in the appendix to this paper, the tables showing both the numerical totals and the percentages for each item. From these tables, the significant facts and important percentages have been abstracted for use in the body of this discussion, thus obviating any need for constant reference to them.

## **DISTRIBUTION OF INTELLIGENCE**

Since the recognition of the need of studying the criminal as an individual member of society, there has been a growing realization of the necessity of understanding and appreciating the extent and nature of his mental and intellectual endowment. With the development of standardized psychometric tests, a valuable means of estimating the intellectual endowment of the individual became practicable. The results of the application of these tests to the offenders included in this investigation show the following general distribution:

Normal Intelligence Group.....	50.41% of all cases
Subnormal or Low Intelligence Group.....	19.36% of all cases
High Grade Moron Group.....	24.14% of all cases
Low Grade Moron Group.....	6.09% of all cases

It is at once evident from the above figures that essentially fifty per cent of delinquents are definitely below normal in intelligence, if 1690 cases of adult white unselected criminals may be considered a fair sample. And undoubtedly they are. Unfortunately, any figures showing the distribution of the general population according to the above levels of intelligence are wholly unavailable. The use of the findings of the army tests is precluded since the very lack of standardization and the actual misinterpretation of the significance of various tests, according to Brigham,<sup>3</sup> and the absolute errors of selection,<sup>4</sup> improper methods of application, and the use of untrained testers, according to Terman,<sup>4</sup> render the results of the army tests exceedingly unreliable and not a fair criterion of the intelligence of the general public. Common judgment would lead, however, to the conclusion that far less than fifty per Cent of the general public are subnormal. And this conclusion is substantiated by the findings of Terman who found less than 20% of a total of one thousand unselected school children with an I. Q. below 90,<sup>5</sup> and similar findings have been made by other investigators in the same field. While results obtained with children may not be strictly comparable with those obtained with adults, there can be little question of their significance, especially in regard to such a matter as intellectual endowment. Further, the above findings have been more than corroborated by Kuhlmann<sup>6</sup> working in the reformatories of Minnesota where he found, in a total of 1962 cases, 78% below normal intelligence, a considerably greater figure than that given by the above table. However, the delinquents studied by Kuhlmann, were, on the whole, considerably younger than those of this investigation which may account for the difference in percentages. Likewise in New York, Slawson<sup>7</sup> found a total of 77% below normal intelligence in a series of 553 juvenile male delinquents, and 60% below normal in another series of 98 cases. While these cases are not wholly comparable to those of adults, the indications of a direct correlation between delinquency and subnormal intelligence are exceedingly strong.

A second point very evident from the above table is the astonishingly high percentage of mentally deficient individuals among criminals, which is shown to be 30 % in this investigation. The significance of this high percentage is best appreciated by calling to mind the generally accepted estimate of feeble-mindedness in the population at large, which places the ratio at one mentally deficient person in every two hundred of the general population, an estimate based on eight different surveys made by investigators in various states and confirmed in results by the findings in similar investigations in Europe.<sup>8</sup> Gillin, however, after a careful consideration of the literature on this question for this country, has estimated a proportion of 2% of the general population as feeble-minded.<sup>9</sup> Thus, the ratio of feeble-mindedness among criminals is here shown to be at least from fifteen to sixty times greater than that of the population at large! These findings have been repeatedly confirmed by other investigators. Kuhlmann has found an average of 29.1% of the inmates of the reformatories of Minnesota feeble-minded;<sup>10</sup> Slawson, working with delinquent boys in New York State found 20% to 25% feeble-minded;<sup>11</sup> Anderson, after his investigations in the Problem, reached a conclusion that 27% to 29% of all prisoners are feeble-minded;<sup>12</sup> and the Wisconsin Psychiatric Field Service, in a total of over 8,000 examinations of the inmates of the various state penal and correctional institutions, has found an average of 27% of all offenders feeble-minded, the percentages varying from 20% to 35% depending upon the particular institution

concerned.<sup>13</sup> Also, various investigations conducted among delinquents in California, Illinois, Indiana, New York, and West Virginia, Show percentages of mentally deficient among criminals ranging from 20% to 30%.<sup>14</sup> Accordingly, the genetic force of mental deficiency in the production of crime is not to be doubted. Indeed, Goddard, after his long study of feeble-mindedness, reached the conclusion that every mentally deficient individual is a potential criminal, and further, that 40% of families manifesting feeble-mindedness show criminality and that sex delinquency in such families is practically the rule.<sup>15</sup> The seriousness of this hardly needs mention! However, whether the role played by feeble-mindedness in the production of crime is direct or indirect is not a proposition to be decided here, nor does that question lessen the grave significance of mental deficiency in relation to anti-social behavior and criminality.

Further, the above table shows that fully 20% of the total number of feeble-minded among delinquents, or 6% of all criminals coming within the scope of this investigation, are low-grade morons. The significance of this will be better appreciated when it is realized that the defect of intelligence in low grade morons is so severe that authorities are well agreed that they can be cared for properly only within the confines of an institution designed for the care of the feeble-minded.<sup>16</sup> Indeed, the capacity of low grade morons for social and moral responsibility at law is nil according to Richmond<sup>17</sup> and Kuhlmann<sup>18</sup> after long study of the problem, and these investigators feel that even in regard to the high grade moron, legal responsibility is very frequently "debatable and subject to proof." Yet there delinquents with such marked deficiency of intelligence are allowed to serve their terms unrecognized legally for what they are, and then are discharged and permitted to return to society for which they are absolutely unfit socially, morally, and economically, there to reproduce their kind and to repeat their contribution to the crime problem! And that they will is no matter of pessimistic speculation, since, to the low grade moron, consideration for others, altruism, probity, and moral and ethical principles are vague, incomprehensible things. And in his intellectual blindness he gropes and stumbles through the social maze of life wandering into forbidden paths all along the way, knowing no better and unable to know better.

## **CRIMINAL HISTORY**

That there is a relationship between deficiency of intelligence and criminality has just been pointed out. Whether that relationship is direct or indirect, as would be shown by group comparisons, may be somewhat indicated in the following table which Shows the present extent of the criminal histories of the individuals of the various groups under examination:

	Normal	Sub-Normal	High Grade	Low Grade
Present Criminal History	Intell. Group	Intell. Group	Moron Group	Moron Group
Misdemeanors .....	45.54%	49.54%	46.08%	49.52%
One Conviction.....	76.52%	78.59%	80.88%	84.47%
2-3 Convictions.....	20.31%	18.66%	17.89%	14.56%
4 or More Convictions.....	3.17%	2.75%	1.23%	.97%

Careful scrutiny of the above table suggests that, while the tendency toward crime does occur more often among the mentally deficient, the manifestation of that tendency in the individual does not vary in extent and frequency with the degree of intelligence possessed. In other words, while deficiency of intelligence allows for a greater number of individuals with criminalistic tendencies, the manifestation of those tendencies, in so far as the total number of offenses committed is concerned, varies in no degree from the manifestation of the criminalistic tendencies of the non-feeble-minded. Indeed, the parity of the group percentages for each item of the above table very strongly suggests an indirect relationship between criminality and intelligence, and indicates that the criminal tendency is a thing apart from the intellectual endowment and hence little influenced directly by the degree of intelligence possessed. However, the degree of intelligence may play a role in the particular form of specific manifestations of anti-social behavior. As a conclusion, justified by the above findings, it may be stated that the tendency to criminal behavior appears to be dependent upon factors other than intelligence, and that deficiency of intelligence seems conducive to criminality only by virtue of allowing a more frequent occurrence of this tendency.

A second matter for consideration suggested by the above table is the extent of recidivism which amounts to an average of 17% when only actual convictions with prison terms are considered. With the inclusion of all offenses against the law, misdemeanors as well as felonies, percentages for recidivism are markedly increased. That the inclusion of misdemeanors, in calculating recidivism is entirely justifiable in a study of the nature of criminality is not to be doubted, since there is nothing inherent in an offense against the law which makes it either a felony or a misdemeanor.<sup>19</sup> Indeed, the mere circumstances of the situation often determine whether the particular manifestation of criminal tendencies constitutes a misdemeanor or a felony,<sup>20</sup> and in the vast majority of cases, the Standards of judgment are entirely arbitrary. Accordingly, the following table is given showing the percentages with the inclusion of all offenses:

	Normal Intelligence.	Subnormal Intelligence.	High Grade Moron	Low Grade Moron
Total Present				
Criminal History	Group	Group	Group	Group
One Offense.....	39.44%	39.14%	41.93%	48.55%
2-3 Offenses.....	50.23%	50.16%	50.23%	45.63%
4 or More Offenses.....	10.33%	10.70%	7.84%	5.82%

In the foregoing table, for each individual, a history of misdemeanors, whether one or many, is considered as a single offense, and actual convictions of felonies constitute all additional offenses. Since all individuals included in this study have at least one conviction, the first item of the above table shows the percentages of those having one conviction with no history of misdemeanors, while the other two items show the percentages based upon the inclusion of misdemeanors with felonies.

Thus, it is shown above that the actual recidivism ranges from 45% for the low grade morons to 50% for the other three groups. These findings are quite in agreement with the findings of Anderson in his investigation of Wisconsin criminals among whom he found 45% recidivists.<sup>21</sup> Glueck, in an investigation at Sing Sing found a total of 66%

recidivists,<sup>22</sup> while in Massachusetts for the years of 1921-1922, the percentage of recidivists among all offenders sentenced in the state ranged from 51.3% to 55.1%,<sup>23</sup> and in New York City 47% of the inmates of the workhouse were recidivists in a study conducted before 1916,<sup>24</sup> and 47% of all prisoners admitted to the state prisons in New York in 1921 were recidivists.<sup>25</sup> When it is considered that recidivism is one of the surest signs of the instinctive and incorrigible offender,<sup>26</sup> and that, according to a former head of Scotland Yard, a great part of the serious crimes are committed by recidivists,<sup>27</sup> the need of recognizing the recidivist as such and according him treatment designed for that class of offenders is at once apparent.<sup>28</sup> Further, the very fact there is such a high percentage of repeaters shows the ineffectuality of our present penitentiary system both for correction and intimidation.<sup>29</sup>

Likewise deserving of comment is the marked extent of habitual criminality, which ranges from for the low grade feeble-minded criminals to 100% for those of normal intelligence, an average of 9.9% of all criminals. That one-tenth of criminals are habitual offenders emphasizes the seriousness of the problem constituted by such individuals alone, and renders at once apparent the need of some special socio-legal provisions for such unfortunate individuals. It is indeed, fortunate that the greater part of the crimes committed by habitual offenders are petty in nature.

A fourth consideration apparent from the above table is the extent of recidivism among the low grade morons. As has been mentioned above, 45% of the low grade morons have been in court and found guilty of crime two or three times. In addition, approximately 6% are habitual offenders. Yet these low grade morons have not been recognized for what they are and placed in the proper institutions. Likewise and to an even greater extent, the same holds true for the high grade morons, hence rendering the social wrong much greater. Thus is the inadequacy of the present judiciary system made apparent as well as the inadequacy of present social provision for such individuals, since there are provided as yet neither the means of recognizing such social unfits nor the institutions to receive them. Indeed, a total of 6% of adult criminals coming into the courts are low grade morons who may be cared for properly only by institutionalization. Yet that they are not recognized as such, but are treated in the same fashion as there fellows of unimpaired intellect constitutes, both a social tragedy and a severe criterion upon social enlightenment. Further, as shown above, 30% of all adult criminals are feeble-minded and 56.7% of them are either recidivistic or habitual criminals. Hence they are obviously in need, at the very least, of constant and careful supervision from the standpoint of deficiency of intelligence alone, not to mention criminalistic tendencies, in order to conduct themselves and their affairs in a prudent social manner. These considerations render the appalling need of social and judicial recognition of this problem most apparent. When, eventually, the forces of social organization do take this problem into consideration there will be, in all probability, a marked alteration in the current of crime.

## **LENGTH OF SENTENCE**

Serving to substantiate the points made above concerning recidivism and the inadequacy of present social and judicial provision in regard to the recidivistic mentally deficient are

the findings in regard to the length of the sentence imposed upon the offender by the court of trial, given in the following table

	Normal Intelligence	Subnormal Intelligence	High Grade Moron	Low Grade Moron
Length of Sentence	Group	Group	Group	Group
1 year or less.....	8.45%	9.79%	10.54%	13.59%
2 years or less.....	26.52%	28.44%	30.39%	27.18%
3 to 4 years.....	27.11%	29.05%	24.50%	17.48%
5 to 9 years.....	21.48%	14.37%	16.43%	18.45%
10 years or more.....	14.44%	13.15%	14.95%	18.45%
Life imprisonment.....	2.00%	5.20%	3.19%	4.85%

From this table, it is at once evident that the general distribution of each group of offenders is very much the same, about 65% of each group serving sentences less than five years. The low grade morons, however, show a tendency to depart from the general levels of distribution, and particularly is this marked in the percentages for the more drastic sentences, where the low grade morons show a decided increase above the other groups. While the severity of the sentence administered may not be taken as an accurate indication of the seriousness of the offense, nevertheless, inasmuch as sentences are determined in the main by statutes, the length of the sentence does constitute such a measure to a very considerable extent. Accordingly, the similarity of the percentages for the more drastic sentences strongly suggests that the feeble-minded are fully as capable of committing very serious crimes as their fellows of more normal intelligence, with a seemingly increased tendency on the part of the low grade moron. Especially does this appear to be the case since the feeble-minded have the greatest percentage of life imprisonment sentences. And inspection of the records of the low grade morons serving terms of ten years or more or of life imprisonment reveals such crimes as murder, assault to murder, incest, and sexual assaults upon small children, all crimes most heinous to social feeling. Hence, it is evident that of the criminal class the low grade moron is even more of a menace to society than his more normal but criminally inclined fellow, and that the high grade moron is fully as great a menace as his fellow delinquent of greater intelligence. Also, judging from the sentence imposed according to the restrictions of the statutes, pettiness of offense is not a characteristic of deficient intelligence. On the contrary, intelligence apparently plays little part in determining the seriousness of the crime committed except in regard to the low grade moron, and there it probably is the lack of intelligence which constitutes the important factor. Indeed, the gravely dangerous criminal tendencies in the mentally deficient are even more serious since they have not the saving grace of intelligence wherewith to hope for a control, even partial, of their anti-social tendencies. The gravity of this is further emphasized by reference to the preceding table which shows the failure of the courts to recognize the mentally deficient even upon the occasion of many court visits. All this stresses greatly the total inadequacy of the present court system, which falsely considers only the offense and not the offender, which is the empirical method of treating the symptoms without specifically considering the disease causing them. Thus the laws fail to protect society because they are concerned with the superficial criterion of the crime and not with the essential criterion of the nature of the delinquent<sup>30</sup> and hence there can be no treatment of the criminal in direct accordance with his own particular needs. The latter is an easy matter only in regard to

the mentally deficient where institutionalization or colonization might solve the problem most satisfactorily.

Illustrative to a still further degree of the point made above concerning the ineffectualness of the present penal system are the results of a comparison of the percentages for recidivism with those for long-term sentences. As may be seen above, although 56.7% of offenders are recidivistic or habitual offenders and hence incorrigible in the main, as has been mentioned above, only 16% to 23% are serving long term sentences. This fact, then, signifies that the greater per cent of recidivists are serving terms of more or less brevity. That little benefit to society may be expected from such terms is not to be doubted since sentences of three to five and even ten years are without effect upon recidivistic offenders and possess value only by virtue of segregating the offender for a while and thus sparing society a greater or less number of crimes.<sup>31</sup> At best such sentences, in so far as recidivists are concerned, constitute nothing more than a flimsy makeshift in dealing with the problem of repeated criminality. Indeed, the statistics of crime as well as the teachings of history confirm the absolute inadequacy of the present system of punishments against crime.<sup>32</sup> Especially is this so in regard to the feeble-minded recidivists who are accountable for a full 25% of the entire problem of repeated criminality and whose deficiency of intelligence effectually and completely militates against any possibility of regeneration or correction. That penalties are established by statutes and are based wholly upon a consideration of the material act constitutes an actual social injury since society thereby derives a false sense of having adequately and securely provided against a danger. In reality, it has not, for the harm is merely postponed. Commitment to prison should be determined not by the nature of the offense but by the nature of the offender,<sup>33</sup> and with a view toward the causes of the delinquency, the effect upon the individual, and the moral prognosis.<sup>34</sup> Only in this way may adequate social provision be made for the warped, deficient, defective, and unregenerate enemies of the social order.

### **TYPE OF CRIMES COMMITTED**

It is generally conceded that the particular crime committed, with few exceptions, is of no particular significance in the comprehension of the problem of the criminal. Blanc has very rightly said that the essence of crime does not lie in the material act but in the psychical state of the agent and that there are no crimes but only criminals.<sup>35</sup> Similarly, Aschaffenburg in his text-book on crime declares that criminals are not particular in their choice of crimes of psychologically equal value.<sup>36</sup> Indeed, crime is only a manifestation of an unsocial or anti-social nature, in reality, merely a symptom of disease or distortion of social relationships. The particular type of crime committed is, within the reasonable limits established by the fundamental nature and capacities of the individual, determined almost entirely by the circumstances serving to call forth the malefaction. Thus, the individual of criminalistic tendencies whose powers of volition are weak may become an habitual drunkard, or he may abandon his family, or, upon attaining a position of trust, he may become an embezzler. But by no means may he be classed according to the particular offense committed, since the essential thing is the constitutional defect of his nature permitting him to become guilty of an antisocial act. However, it must be

recognized that the constitutional defect may vary in extent with different individuals and, with this variation, there is a corresponding variation in the degree of criminality. Thus, one criminal is rendered more or less a petty offender while another with more marked defect may run the whole gamut of the criminal calendar. Very much in support of the proposition that there is no particular class of crimes for any particular group of criminals, except as determined by circumstances over which they have no control, is the following table listing the various crimes committed:

Crime Committed Crimes against:	Normal Intelligence Group	Subnormal Intelligence Group	High Grade Moron Group	Low Grade Moron Group
Property .....	57.04%	51.38%	46.08%	37.86%
Persons .....	6.69%	9.79%	7.84%	17.48%
Chastity and Morals.....	9.98%	11.62%	10.30%	16.51%
Automobile Thefts.....	8.10%	5.50%	5.88%	1.94%
Statutory Rape.....	8.10%	11.01%	15.20%	15.53%
Abandonment .....	6.34%	4.28%	8.82%	7.77%
Otherwise .....	3.75%	6.42%	5.88%	2.91%

It is evident from the above table that the distribution of offenses is essentially the same for each of the various groups with only slight group differences. Thus, automobile thefts occur more frequently among those of normal intelligence, in all probability because of the need of intelligence in conceiving and executing such a theft. The same interpretation probably holds true for the comparative decrease in the incidence among low grade morons of crimes against property, since many such crimes require good intelligence and careful planning. On the other hand, abandonments occur to a greater extent among the mentally deficient than among those not feeble-minded, because of the increased difficulty entailed by deficiency of intelligence in bearing family responsibilities, as had been noted in a previous investigation.<sup>37</sup> The most significant differences in the table above are in regard to the crimes against persons and against chastity and morals, wherein, with the decrease in intelligence there is an increase in incidence. This is very suggestive that in crimes of passion intelligence may play an inhibitory role, or that the deficiency of intelligence tends to limit the expression of criminalistic tendencies to animal methods. However, outside of the limits of specified offenses and the natural handicaps of the individual, intelligence appears to have little significance in the determination of the nature of the offense committed, thus substantiating the proposition that the malversation committed is not a true criterion of the class of the delinquent. Further, the above table emphasizes again the seriousness of the part played in crime by the mentally deficient, for it shows that their criminality differs in no great wise from that of their more normal fellows. This is even more serious since there can be no good hope of regeneration of such offenders, particularly so with regard to the low grade morons, who manifest as a group the greater tendency toward the more socially injurious crimes.

## **SUBJECTIVE CAUSATIVE FACTORS UNDERLYING CRIME**

Subjective causative factors underlying crime would be sought most naturally in the table of *Reasons, Excuse, or Explanation* offered by the offender. However, it must be

recognized from the very outset that the rationalized explanation of his crime given by the criminal upon inquiry, unless substantiated by case work, so desirable for accurate information, is most unreliable from a scientific point of view. Hence, conclusions drawn therefrom must be made cautiously. Nevertheless, the very remarkable agreement in percentages between the various groups so widely divergent on the scale of intelligence necessarily gives the explanations offered a significant, if not indisputable, cast of reliability. Therefore, the various outstanding reasons given are presented for consideration and their possible significance suggested

	Normal Intelligence Group	Subnormal Intelligence Group	High Grade Moron Group	Low Grade Moron Group
Reason Given:				
Economic Distress.....	20.31%	14.99%	12.25%	15.53%
Bad Company.....	6.93%	7.34%	5.39%	2.91%
Liquor .....	19.13%	23.24%	22.06%	20.39%
Miscellaneous .....	41.54%	43.42%	48.05%	51.46%
No Reason.....	12.09%	11.01%	12.25%	9.71%

Careful scrutiny of the above table shows no outstanding subjective causative factor peculiar to any one group. The feeble-minded give the same reasons as those not feeble-minded, and do so in approximately the same proportion of cases. Accordingly, the factors represented above must be considered as purely environmental in nature, or that the deficiency of intelligence in the feeble-minded is of such nature as to prevent their true recognition of the impelling factors in their criminality. The latter is difficultly tenable as an explanation.

That such a reason as *Economic Distress* has practically the same percentages for each group is most surprising, for the lesser earning capacity of the feeble-minded would lead to the presumption that individual poverty would be much more of a subjective Criminogenic factor among the mentally deficient than among their intellectual superiors. Especially so would this be the presumption since it is well recognized that poverty and lack of necessities often impel toward theft with the view of satisfying the individual's own needs.<sup>38</sup> However, this similarity of percentages for the various groups is highly suggestive that *Economic Distress* is a purely environmental factor in the production of crime. Thus, while poverty may have a subjective value in impelling toward anti-social conduct, its force is not determined by individual peculiarities or deficiencies but by the environmental force of circumstances.

That *Bad Company* constitutes a no more important subjective factor for the feeble-minded than for those not mentally deficient as shown by the above table is presumably false, since the feeble-minded are probably entirely incapable of properly appreciating the influence exercised over them by bad associates. The part played by evil companions is unquestionable, as individual cases frequently show, but the extent of that part is, in all probability, unmeasurable.

That *Alcoholism* is still a gravely potent factor in the production of delinquency would be a most ready inference if the percentages of the various groups giving *Liquor* as the subjective causative criminogenic factor could be accepted at face value. However, to

accept the percentages as given above would be a most dubious procedure, for the excuse of "I was drunk and didn't know what I was doing" or "I got to drinking and then I didn't care what I did" is too easily made and is too palliative from the individual's point of view for any great amount of reliance to be placed upon it. That alcohol does play a part in individual cases and in crime in general is not to be questioned, for it has been proved conclusively by Pearson & Elderton,<sup>39</sup> and Howard.<sup>40</sup> But in how many individual cases it has played a part and to what extent is quite another matter, very probably unmeasurable with any degree of accuracy. Especially is this so since the most important relation between alcohol and crime is economic and social rather than physiological, the alcohol destroying economic efficiency, breaking down self-respect, and leaving the field open for bad conduct.<sup>41</sup> Nevertheless, in the above table, the marked extent of agreement between the various groups, so widely differing in intellectual endowment, in attributing delinquency to alcoholic indulgence indicates very strongly that liquor does play a definitely subjectively recognizable part in the causation of crime. Further, the equality of percentages for the various groups signifies that *Liquor*, like *Economic Distress*, is an environmental factor rather than a group peculiarity, which is quite contrary to expectations. That the low grade morons show scarcely any greater alcoholic indulgence than their mental superiors is indeed surprising, and the same holds true for the high grade morons. However, this may be due to the decreased earning capacity of the mentally deficient, thus preventing indulgence. But in general it appears that the degree of intelligence possessed bears no relation to the tendency toward alcoholic indulgence in so far as subjective appreciation is concerned.

### **MILITARY SERVICE AND DELINQUENCY**

In the first part of his "Utopia," Sir Thomas More makes the earliest mention of the significance of war in the production of increased delinquency.<sup>42</sup> This opinion he based upon observations following the war with France. Since his time, following every war, the same general observation has been made. After the Civil War, an extensive investigation into this question was made, and a marked increase in crime incidence following the war was noted.<sup>43</sup> However, because of various errors of inclusion and selection of data, the reliability of the results of the investigation is somewhat questionable.<sup>44</sup> In this investigation, a history of participation in the World War seems to be of very considerable significance in regard to the criminogenic factors of delinquency, as may be gleaned from the following table:

	Service in the World War
Normal Intelligence Group.....	18.65%
Subnormal or Low Intelligence Group.....	14.68%
High Grade Moron Group.....	7.35%
Low Grade Moron Group.....	13.59%
WEIGHTED AVERAGE FOR ALL GROUPS.....	14.76%

To properly evaluate these percentages, it must be borne in mind that the criminal population is entirely unselected as regards physical perfection, age, and freedom from dependents, qualifications which obtain in the selection of men for military service. Accordingly, a percentage of the unselected criminal group exceeds in actual numerical

value the same percentage of the selected and hence smaller military group coming within the same general grouping of the population. Hence, 14.76% of the entire criminal group, as given above, in reality signifies a much higher percentage of the actual military group included by the criminal groups. How much higher it may be, is, of course, impossible of statement, but considering the military qualifications, an estimate of half again as much is, in all probability, entirely fair. Further, the number of white males coming within the age limits of 21 to 70 years established by the criminal classes herein under examination is 27,133,759,<sup>45</sup> and the total of white troops who saw service amounts to 3,306,178,<sup>46</sup> thus giving a proportion of 12.1% of the general comparable population in 1920 serving in the World War. In the eight years since 1920, vast numbers of minors have reached their majority, thus markedly changing the constituency of the general population. Hence the proportion of the present comparable population having a history of service in the World War is unquestionably and decidedly less than the 12.1% given above, as contrasted to the 14.76% of the present criminal population. Bearing this in mind, it is at once evident that the percentage of ex-service men among offenders against the law is disproportionately high, a fact holding true, essentially, for each of the various groups, and to a similar degree, showing no striking relationship between degree of intelligence and history of military service. That approximately one out of every seven criminals has served in the World War as compared to one out of every ten or more of the general population suggests a direct relationship between that service and the anti-social behavior of the individual. This same high percentage of ex-service men among the inmates of penal and correctional institutions has been previously noted by Lorenz<sup>47</sup> who found a total of 25 % for Wisconsin in 1923. Accordingly, the potency of military service as a factor in delinquency is not to be doubted, whether directly as consequent upon the disorganization of personality due to military experiences, or indirectly either as consequent upon the difficulties of re-adjustment in civil life in the post-war period, or as a result of army-learned habits and morals carried over into civil life.<sup>48</sup> This disproportion of ex-service men among criminals may be appreciated to a still further degree by calling to mind the very significant facts that the age group of 21 to 24 years inclusive has the greatest crime incidence as shown by the census report of 1904.<sup>49</sup> and the census report of 1923,<sup>50</sup> and that the median age of those committed to penal servitude for a term of one year or more, which would include the 1,690 cases of this study, is 28 years.<sup>51</sup> Indeed, criminality is an attribute of personality which tends to show itself early in life.<sup>52</sup> These facts strongly emphasize the increased percentage of World War veterans inasmuch as they are, on the average, well beyond these ages. Accordingly, even for a long time afterwards, nearly ten years in this study, delinquency must be regarded as a due toll of war.

## **AGE DISTRIBUTION**

Another matter of interest was the age distribution for the various groups under study, which is given in the following table:

	<i>Age Groupings</i>			
	<i>21-30</i>	<i>31-40</i>	<i>41-60</i>	<i>61—</i>
Normal Intelligence Group..... .	58.32%	24.54%	14.79%	2.35%
Subnormal Intelligence Group..... .	57.19%	23.85%	15.29%	3.67%
High Grade Moron Group..... .	52.69%	23.29%	19.36%	4.66%
Low Grade Moron Group..... .	35.92%	36.90%	24.27%	2.91%

It is at once evident from the above table that there is a considerable degree of relationship between the amount of intelligence possessed by the offenders and their age distribution. The greater proportion of younger offenders is to be found in the more highly intelligent groups, while the greater proportion of older offenders is to be found in the groups of lowest intelligence. As shown above, 64% of the low grade morons have passed the age of 30 years, as compared to 42% of those of normal intelligence.

Similarly, 49% of all feeble-minded delinquents have passed that age as compared to 42% of those not feeble-minded. Further, the per cent of mentally deficient delinquents included by the age period of 41 to 60 years is relatively 36% greater than the same percentage for those of more normal intelligence. This increase is even more marked in the case of the low grade feeble-minded, who show a relative increase ranging from 25% above the high grade morons to 67% above the normal intelligence group. Apparently then, delinquency among feeble-minded adults occurs at a considerably later age than the average than among those not feeble-minded. An interpretation that may be suggested for this is that the passing of the years renders the problems of life more and more strenuous for the mentally deficient individual because of his naturally decreased powers of occupational adaptation and consequently decreased powers of social adaptation.

Accordingly, he finds the burdens of life relatively more difficult than his fellow of more normal intelligence who is not compelled to confine his efforts to sustain life to the "drawing of water and the hewing of wood." And in individuals of already weak moral fiber, any added strain may be sufficient to break the slender threads holding the individual from wrong conduct. On the other hand, rather than a postponement of the age of incidence, it may be that the curve of crime incidence for the feeble-minded, after reaching its highest point at the age group of 18 to 24 years, does not decline as does the curve for crime incidence in general.<sup>53</sup> Rather, it may be that it continues as a plateau, extending much farther into the later age groups. This appears entirely reasonable since the deficiency of intelligence of the feeble-minded negates any well-founded hope of regeneration of such an individual after he has once embarked upon a criminal career. Nor can there be any well-justified expectation of the feeble-minded acquiring wisdom with one experience with penalization. On the contrary, it seems reasonable to expect that the tendency toward crime would remain unchanged and that the manifestations would continue unaffected and undiminished in number.

## **MARRIAGE AND DELINQUENCY**

Marriage is well-recognized as a stabilizing influence for the individual,<sup>54</sup> and constitutes an actual moral force in the prevention of crime by providing happiness and stimulating worthy activity.<sup>55</sup> Accordingly, a decreased incidence of marriage or an increased disruption of marriage might reasonably be expected among criminals. In substantiation of this inference is the report of the Census Bureau which shows that the unmarried among criminals outnumber the married more than two times per 100,000 population of the age of 15 years or more.<sup>56</sup> However, this is probably a distortion of the real truth since the criminal population with that age limit contains an exceedingly great proportion of juvenile and young adult offenders, as is shown by the census reports mentioned above an the age of crime incidence. This investigation, however, includes only individuals of marriageable age, and their marital status has been investigated for any significant manifestations. The findings are given in the following table together with similar findings for the general comparable population of the United States:<sup>57</sup>

<i>Marital State</i>	<i>Normal Intelligence Group</i>	<i>Subnormal Intelligence Group</i>	<i>High Grade Moron Group</i>	<i>Low Grade Moron Group</i>	<i>U. S. General Comparable Population*</i>
Single .....	43.67%	49.54%	45.59%	46.60%	25.1%
Married .....	56.33%	50.46%	54.41%	53.40%	68.3%
Separated .....	5.83%	4.84%	2.25%	3.63%	
Divorced .....	20.62%	18.78%	20.27%	18.18%	6.6% (S D&W)
Widowed .....	5.62%	12.72%	9.91%	7.27%	

\*White race and 21 or more years of age.

As may be readily seen, there is no striking disproportion between the married and the unmarried of the criminal classes. The one state obtains essentially as frequently as the other, the married having a slight majority. Comparison, however, of the percentages for the criminals with those for the general population shows a decided decrease in the incidence of marriage among offenders of all types. Accordingly, the assumption of the stabilizing influence of marriage appears well substantiated. Or, it may be that the fundamental constitution of the delinquent is of such a nature that he is frequently antagonistic toward the assumption and maintenance of marital duties and thus fails even to experience contact with any presumably stabilizing influences of marriage. At any rate, marriage, together with any of the beneficial influences it may exert upon the individual, is of markedly less frequent occurrence among criminal classes than among the general population.

A second point concerning the decreased incidence of marriage among malefactors as shown above, is the similarity of the percentages for the various groups. There is no decrease in the extent of marriage concomitant with the decrease in the intellectual endowment as might be expected from the assumption that intelligence is a requisite for the assumption of matrimonial duties, moreover, the equality of the percentages for the feeble-minded groups and the non-feeble-minded groups demonstrates that even deficient intelligence is infinitely far from constituting an effectual barrier to the marriage of the unfit—even those unfit who manifest the combined defects of criminality and of mental deficiency!

That slightly over 50% of criminals, including even the low grade morons, are married with the consequently increased possibilities of the propagation of the species is somewhat disheartening. However, a more hopeful aspect of the matter is obtained by bringing into consideration similar statistics in regard to the marriage of college graduates who undeniably represent the better stock of the land. Investigation in the alumni records of Harvard and Yale for the period of 1851 to 1890 shows the percentage of male graduates married ranging between 74% and 78%.<sup>58</sup> A similar investigation at Syracuse University covering a period of 50 years reveals 81% of the male graduates married,<sup>59</sup> and similarly, Stanford University has a percentage of 73.2% of the men of the classes from 1892 to 1900 married.<sup>60</sup> Thus, a comparison of those percentages with those of delinquents affords a hopeful eugenic outlook, and also, it shows the decreased incidence of marriage among delinquents. To be sure, the figures given in the table above are less than their true value inasmuch as more marriages will occur among the offenders herein under investigation, but the possibility of their marriage percentage ever reaching the level of that of college-bred men is extremely doubtful. Particularly is this so in regard to those of deficient intelligence wherein the average age is considerably beyond the usual age of marriage.

Another instructive aspect of the above table is the very great frequency of marital disruption among the criminal groups as compared with the general population. Divorce alone is accountable for three times as much marital disruption among criminal classes as divorce and death among the general population. However, it must be borne in mind that conviction of felony constitutes grounds for a divorce in Wisconsin and various other states. Although this fact probably does account for some of the increase, it is not conceivable that it would account entirely for the markedly increased incidence of divorce among criminals. Particularly does this seem to be that more tenable since the prevalence of divorce is practically the same for each of the various groups. This equality of incidence is strongly suggestive that the criminally inclined nature, regardless of intellectual endowment, is fundamentally lacking in those personal and social requisites essential for the assumption and maintenance of marital duties. Or it may be that this marked prevalence of divorce indicates the failure of the stabilizing influences of marriage and home life because of the inherent instability of the criminal classes preventing the reception of any such benefits. Both inferences are further substantiated by a consideration of the percentage of separations. This, for the two more intelligent groups, amounts to over 25% of the general divorce rate for those groups, thereby greatly increasing the percentage of disrupted married life. While comparable figures for the general population are not available to enable a proper evaluation of these percentages of separations, common judgment alone is sufficient to realize that figures for separations among the criminal classes are undoubtedly increased over similar figures for the general population. The same thing is true of the percentages for the widowed, as is shown by the figure above for the general population of 6.6%, which includes both the widowed and the divorced. As it is, the percentages of actually disrupted marriages range from 29% for the low grade morons to 36% for the group of subnormal intelligence and 32% for the normal intelligence group. And when it is considered that 36% to 58% of the groups respectively are still within the age group of 21 to 30 years, it is reasonable to suppose that a contrasting of these percentages with figures for a like proportion of the

general population would render the above figures comparably much higher. However, from a eugenical point of view as regards the propagation of the species, this high percentage of disrupted marriages is a most hopeful sign.

## **SOCIAL AND ECONOMIC RESPONSIBILITIES**

Related in significance to the table above on *Marital Status* is the table on *Social and Economic Responsibilities*. This table includes data only for those individuals who are married or have been married at some time. Following is the table:

(Married Individuals Only)	Normal Intell. Group	Sub-normal Intell. Group	High Grade Moron Group	Low Grade Moron Group
Without children	32.29%	24.85%	21.17%	24.45%
With children				
With one child	26.04%	25.45%	27.94%	20.00%
With two children	20.21%	19.39%	20.27%	14.55%
With three children	8.75%	11.52%	9.00%	10.91%
With four/more (average of five)	12.71%	18.79%	20.72%	29.09%
AVERAGE NUMBER OF CHILDREN PER FAMILY	1.56	1.93	2.02	2.27

It will be noted at once that the greater number of children and the greater number of families with children occur in the groups of deficient intelligence, particularly so in the low grade moron group. This is quite in accord with the findings of other investigators and the generally conceived opinion of the greater fecundity of the classes of deficient intelligence.<sup>61</sup> While some consideration must be given to the greater average age of the feeble-minded of the above table in evaluating the percentages, the significant distribution of the percentages, and the low percentages of childless marriages strongly suggest the justifiability of comparing them on an equality with the other groups. How serious is this fecundity of the criminal classes as shown here may be judged somewhat by comparable figures for other classes of society. Thus, an investigation of the families of 1,000 American men of science who had attained some degree of distinction showed 22% childless and an average of less than two surviving children for each one.<sup>62</sup> And an investigation conducted in regard to 1,986 prominent Methodist clergymen showed 97.44% married, with only 11 % childless, 12.5 % with one child, 20.4% with two children, 18.5% with three children, and the remaining 37.6% with four or more children, an average of 3.26 children for each individual.<sup>63</sup> Also, an inquiry made in regard to graduates of Harvard and Yale revealed an average of 2.17 children for each individual.<sup>64</sup> And another investigation of the Harvard Graduates of 1894 revealed 20% without children, 13.1% with one child, 18.1% with two children, 22.5% with three children, and 25.5% with four or more children.<sup>65</sup> This makes an average of 2.44 children for each individual, a figure which gives the college bred man of Harvard the lead over even the low grade moron delinquent. Further, it has been estimated by Kehrer that the proportion of childless marriages for civilized countries ranges between 10% and 15%<sup>66</sup> which means that the ordinary middle-class citizen, taking the criminalistic and the college-bred classes as the extremes, bears the burden of restocking the population. This renders

less alarming the belief of the overfecundity of the defective and deficient classes. Nevertheless, that over 50% of the criminal classes are married and tend, despite the prevalence of disrupted marriages to reproduce themselves to the same extent as our leading intellectual classes constitutes an indisputable ill to society. Nor can there be any doubt of the gravity of this when it is realized that for the 328,820 adult male delinquents in prison<sup>67</sup> there are only 508,714 men enrolled as students universities, colleges, and professional schools in the United States,<sup>68</sup> a figure including minors as well as adults.

## ***INDIVIDUAL ECONOMIC STATUS***

Possibly the first author to discuss the relationship between poverty and criminality was Sir Thomas More in his "Utopia."<sup>69</sup> Since his time poverty has become very widely recognized as more or less of an inseparable companion to crime in general.<sup>70</sup> The exact role played by poverty in its relation to crime is not known, but in all probability, its role is indirect since poverty generally means low status, with little to lose, little to respect, little to be proud of, and little to sustain efforts at improvement.<sup>71</sup> In this study, poverty is strikingly manifest in regard to the individuals of each of the groups of offenders.

Following is the table showing the *Economic Status* of the *Individual*:

	<i>Poor</i>	<i>Fair</i>	<i>Good</i>
Normal Intelligence Group	86.39%	13.38%	0.23%
Subnormal or Low Intelligence Group	86.24%	13.46%	0.30%
High Grade Moron Group	88.23%	11.77%	
Low Grade Moron Group	90.29%	9.71%	

In the above table, the term *Poor* signifies a hand-to-mouth existence, the term *Fair* signifies the possession of a small amount of taxable property with slightly more than the bare necessities of life, and the term *Good* signifies a comfortable and reasonably secure living with educational and cultural opportunities available. Such designations, to be sure, are inexact and uncertain, but do possess a very considerable value in aggregate usage. While data showing the economic status of the general population on such a scale as the above is not available, it is, nevertheless, very reasonable to suppose that the percentage of hand-to-mouth existences would fall far short of that shown by criminals. This same opinion is concurred in by Gillin, Bonger, Garofalo, and Sutherland in their respective texts upon criminology, all of which tends to substantiate the reliability of the above table and the conclusions that may be drawn therefrom. Indeed, various investigations have shown that less than 50% of the general population is without property B compared to the 86% to 90% of criminals given in the table above.<sup>72</sup> Thus it is evident that a very considerable stabilizing force is lacking in the lives of the criminal class, since the possession of property serves as a preventative to crime by creating a sense of responsibility and reliability and by awakening the acquisitive instinct.<sup>73</sup>

It is to be noted, strikingly enough, that there are no real differences between the percentages for the various groups, and that the feeble-minded show no greater incidence of poverty than those not mentally deficient. This similarity in percentages suggests very emphatically one of two things, and possibly both. The first of these is the environmental nature of poverty as a factor in delinquency. The second is the possibility of a

fundamental deficiency in the character of criminals which renders poverty a characteristic accompaniment in that it represents a level of existence to which they naturally descend.<sup>74</sup> Both of these interpretations are further suggested by the fact that of the vast numbers of the poor, only a comparatively small part become delinquent, and further by the fact that virtue may thrive as richly in poverty-stricken homes as in those of wealth. Nevertheless, poverty itself does weaken the moral sentiments and thus it does pave the way for anti-social behavior.<sup>75</sup> Moreover, it constitutes an obstacle to education, the want of which may prevent moral development.<sup>76</sup> However, that poverty may have a direct relationship to delinquency must not be overlooked, as individual cases will show, a relationship dependent upon individual factors and made manifest by circumstances. Accordingly, while the conclusion that there is a relationship between crime and poverty may be drawn justly in view of the above evidence, this conclusion does not signify that the disappearance of poverty would herald the end of crime nor even modify the extent of occurrence of social dereliction to any considerable degree.<sup>77</sup>

### **PARENTAL ECONOMIC STATUS**

Parental poverty unquestionably shares in the production of delinquency, probably through the interference it occasions in the proper rearing of the child. Family poverty results often in the absence of the parents from home, the lack of proper and needed discipline, resort to the streets and bad companions, denial of safe and simple pleasures, lack of recreation, and consequent social starvation—all of which forms a wide background of deprivation in youthful lives with no instruction or opportunity of satisfying normal safe desire.<sup>78</sup> In addition, it results in bad environments, and the deprivation of educational and cultural opportunities.<sup>79</sup> Thus even those individuals capable of absorbing the sound principles of law and morality are all too often not even exposed to such teachings. Instead, they are exposed to the undesirable teachings and evil precepts of the wretched environments in which they are compelled to live. And in such environments bad habits are learned by imitation,<sup>80</sup> and actual delinquency is often directly attributable to the deleterious influence of community, as has been shown by investigations,<sup>81</sup> and court record,<sup>82</sup> for criminality, whether in the family group or in the community, always breeds crime.<sup>83</sup> The extent of parental poverty among criminal classes for this particular investigation is shown in the following table on the *Parental Economic Status*, the descriptive terms of which have the same significance as in the previous table on *Individual Economic Status*:

	Percent Having Parents with Economic Status of:—		
	Poor	Fair	Good
Normal Intelligence Group	29.34%	68.08%	2.58%
Subnormal or Low Intelligence Group	29.67%	70.33%	...
High Grade Moron Group	31.13%	68.63%	0.24%
Low Grade Moron Group	30.10%	69.90%	

The above percentages do not, in all probability, reflect the exact truth since they are based on remote memory, and especially would this be so in regard to the feeble-minded. However, comparison of the percentages for the different groups leads to the conclusion

that they may be considered as fairly reliable, especially the first two groups. The general trend of the figures is in accord with common judgment and the various groups, so widely divergent in mental endowment, agree in general most consistently. Accordingly, the above table shows an obviously great dearth of homes affording educational and cultural opportunities and a distressfully large extent of hand-to-mouth existences in the parental home conditions. The influence of parental poverty in the production of anti-social behavior has been recognized repeatedly, and the above findings are fully substantiated by those of Breckenridge and Abbott,<sup>84</sup> and Baily.<sup>85</sup> Undoubtedly the influence of the parental home conditions is indirect, as has been suggested, with those of defective quality accomplishing an undesirable end through the faulty development of the individual, and by the continuance of those conditions of life which allow for the further reproduction and development of such faultily constituted individuals.<sup>86</sup> With homes of defective quality, the social harvest in a vast number of cases must necessarily be poor indeed!

## ***DISRUPTED HOMES AND DELINQUENCY***

Along with parental poverty, another factor, probably of much greater significance in the production of social derelicts, is the matter of broken or disrupted home conditions in the childhood and youth of the individual. The following table shows the status of the home previous to the eighteenth birthday of the offender:

	<i>Percent of Homes Unbroken</i>	<i>Percent of Homes Disrupted by Death, Divorce, Desertion, or Separation</i>
Normal Intelligence Group	63.97%	36.03%
Subnormal or Low Intelligence Group	62.08%	37.92%
High Grade Moron Group	60.54%	39.46%
Low Grade Moron Group	70.87%	29.13%

As may be readily appreciated from the above figures, the percentage of disrupted homes in the childhood of the individual offenders is surprisingly high for all except the low grade morons, the interpretation of which will be made later. Shideler has estimated, by a method accepted by criminologists in general as apparently sound and conservative, that 25% of all children come from disrupted homes, and that, from various of his studies made of delinquent minors, 40% to 70% of all juvenile offenders come from disrupted homes.<sup>87</sup> Healy,<sup>88</sup> Breckenridge and Abbott,<sup>89</sup> and Healy and Bronner<sup>90</sup> have shown in their studies that at least 50% of juvenile delinquents come from disrupted homes, and Sutherland, in his study of the literature, has reached the conclusion that the disrupted home occurs twice as frequently among delinquent minors as among non-delinquent.<sup>91</sup> Also, the census report of 1923 shows that 46% of all juvenile delinquents come from disrupted homes.<sup>92</sup> With such findings for juvenile offenders, it is only reasonable and logical to assume that the same conditions would hold true to a comparative extent for adult offenders, since practically all confirmed criminals begin their careers in their childhood or youth.<sup>93</sup> And this assumption is substantiated by the findings of Lorenz, who found, in his study of 300 cases of ex-service men in penal institutions, that 59% of those cases were individuals whose childhood home had been disrupted.<sup>94</sup> And Brace, in

his early study of adult offenders, found that 55% of the adult criminals in New York penitentiaries came from disrupted homes.<sup>95</sup> Thus, as a conclusion, it may be considered that the disruption of the home during the developmental period of the individual exerts an inimical influence upon normal social development, and may lead indirectly to the production of soil fertile for the growth of anti-social behavior. The reasons therefore are undoubtedly many and varied. Increased economic difficulties of life, deprivation of educational and developmental opportunities otherwise available, and the failure of the normal guiding influences of home training may each constitute serious handicaps to correct social development. In addition, disruption of the home frequently leads to child labor which causes delinquency by placing the individual under responsibilities and in situations with which the ability to cope is lacking or undeveloped, or by rendering the individual pecuniarily independent at an age when the need of guidance is greatest.<sup>96</sup> A still further consideration and one wholly unmeasurable but worthy of serious consideration is the probable inheritance of various undesirable traits of personality which served to disrupt the home in many instances, and which render social adaptation more difficult for the child of that home.

As will be noted from the table above, the percentage of disrupted homes for the low grade morons is considerably below that of the other groups, and is but little higher than Shideler's estimate for the general population. While the exact significance of this is difficult of determination, abstract reasoning suggests either that the home of the low grade moron is devoid of influence in the development of the individual, or that the influence is of such a nature that little difference is made whether the home is disrupted or not. Or it may be that the mental deficiency of the low grade moron is so severe that criminalistic tendencies are a matter of endowment rather than distortion of development as may be the case with those of better mental endowment. At any rate, disruption of the childhood home of the low grade moron appears to be without particularly marked effect upon the individual of that home.

## **PARENTAL NATIVITY**

A much contested but apparently important contributor to delinquency, especially so in regard to offenders of less than normal intelligence, is the element of unselected foreign stock in the population of the state. This may be judged from the following table showing the *Parental Nativity*:

	<i>Parents Native-Born</i>	<i>Parents Foreign-Born</i>	<i>One Native, One Foreign- Born</i>
Normal Intelligence Group	48.95%	38.36%	12.09%
Subnormal or Low Intelligence Group	47.40%	40.98%	11.62%
High Grade Moron Group	44.36%	44.86%	10.78%
Low Grade Moron Group	22.33%	73.78%	3.89%
United States Population in General <sup>97</sup> (white race only)	61.60%	31.00%	7.40%

The above table shows clearly that the foreign-born stock does produce more than its due quota of our specified delinquents, especially so in regard to those of deficient intelligence. This is most marked regarding the low grade morons, where the foreign-

born stock produces more than 235% of its due quota of offenders as determined by population ratios while the proportions for the other three groups ranges from 125% for the group of normal intelligence to 144% for the high grade feeble-minded delinquents. This finding is substantiated by the findings of the Immigration Commission of 1910.<sup>98</sup> and also by Laughlin in his report to the Congressional Committee.<sup>99</sup> And similar findings have been reported by the Massachusetts Department of Correction.<sup>100</sup> In addition, Laughlin also found that the second generation of foreign stock had an increased crime incidence over and above that of foreign stock in general, probably because that generation represents the transitional stage between the discarding of the customs of the old country and the adopting of those of the new. Undoubtedly this fact accounts for a proportion of the increased percentages in the above table. Obviously then, there is an undeniable danger in the admission of unselected foreign stock, both from the aspect of their own undesirability and from the aspect of their reproduction of their kind. Hence, there is an unquestionable and appealing need of a closer and more intelligent supervision of immigration, with more ample provision for the means of so doing.

A second consideration evident from the above table is the increase among offenders of individuals having one parent foreign-born and the other native-born. The percentages given above nearly double that for the general population. Various investigations have shown that there is a decided tendency for the home of mixed parental nativity to produce delinquent.<sup>101</sup> This fact has been attributed to the conflict of standards within the home serving to destroy proper discipline.<sup>102</sup> This strongly substantiates inferences made above concerning the importance of the home in the proper rearing of the child, with defective home resulting in social loss and injury.

## **INDIVIDUAL CITIZENSHIP**

That the individual of foreign birth himself, if not of unselected and inherently faulty stock, is not an undesirable citizen, is evident from the following table showing the *Individual Citizenship*:

	<i>Native</i>	<i>Alien</i>	<i>First Papers</i>	<i>Naturalized</i>
Normal Intelligence Group	84.28%	4.58%	3.05%	8.09%
Subnormal or Low Intelligence Group	82.87%	6.73%	3.06%	7.34%
High Grade Moron Group	78.92%	8.83%	5.88%	6.37%
Low Grade Moron Group	52.43%	26.21%	10.68%	10.68%
United States Population in General <sup>103</sup> (white race only)	85.50%	...	...	...

Here it is evident that the foreign-born individual, unless of subnormal or deficient intelligence, is responsible for no more than a fair share of delinquency as determined by population ratios, and that from a standpoint of potential criminality he is not one bit worse than his native-born brother. However, the increased incidence of crime among those of deficient intelligence suffices to raise the average of crime incidence for the foreign-born individuals far above that of the native-born, as may be ascertained from the above table. This finding is in accord with the general findings of the United States Immigration Commission of 1910,<sup>104</sup> and a similar finding has been made by the Census

Bureau in 1923, which reports, for adult white male delinquents, an actually increased criminality among those of foreign birth.<sup>105</sup> Particularly does the above table show that as the amount of intelligence possessed by the individual decreases, the foreign-born have a decidedly increased crime incidence, and especially is this so in regard to the low grade morons. It has been estimated by capable students that 6% to 7% of the many thousands of immigrants arriving yearly are feeble-minded.<sup>106</sup> Moreover, it is reported that many of those declared unfit to land are permitted to enter this country.<sup>107</sup> Accordingly, it is easy to understand why so large a proportion of the criminal mentally deficient are of foreign extraction. Indeed, while but 14.5% of the population at large is of foreign birth, 47.57% of the low grade moron delinquents are of foreign birth, which places their proportion of crime, as determined by population ratios, at 327% of their fair quota. That this high incidence of crime may be due in part to the inability of the mentally deficient alien to adapt himself to the new social order of his adopted country, rather than entirely to inherent criminal propensities, does not alter nor palliate one iota the fundamental fact of his undesirability. Particularly in this table is the need made evident of an intelligent and selective system of immigration with adequate and complete facilities for culling the undesirables who constitute both a detriment and a menace to the social and economic welfare of the whole country.

Another revelation of the above table is that 26.21% of the low grade feeble-minded delinquents are aliens and that an average of 10.41% of all criminals are aliens and hence subject to deportation. Were the proper and adequate provisions in existence to meet this problem fully, society would experience a most decided benefit, probably at no greater economic cost than that of their criminality. Nor does this conjecture take into consideration the item of the social cost of criminality, which, so often, is infinitely more than the economic.

A further matter of interest in the above table is the percentages of the feeble-minded delinquents who have either applied for citizenship papers or who have been granted them. For the low grade feeble-minded this percentage amounts to 21.36% and the weighted average for both groups of mentally deficient totals 16.66%. That such a large proportion of the feeble-minded, particularly so of the low grade mentally deficient, have been granted citizenship constitutes an exceedingly severe criterion upon society. It evidences a failure to provide the judiciary with the ways and means of evaluating, understanding, and classifying the individuals who come before it. Until society makes the adequate provision essential to enable the courts to understand with what sort of human material they are dealing, there can be no good hope for the dispensation of justice nor the protection of citizenship. Especially is this so in criminal cases—indeed, in all cases where the primary consideration is human nature itself!

## **SUMMARY OF CONCLUSIONS**

The conclusions reached in this investigation and apparently justified by the data at hand are as follows:

1. There appears to be a very definite relationship between criminality and deficiency of intelligence. This relationship becomes decidedly more marked the greater the deficiency.
2. The feebleminded or mentally deficient constitute 30% of our specified delinquents, a proportion fifteen to sixty times greater than that of the general population.
3. The low grade feebleminded constitute 20% of the mentally deficient delinquents and 6% of all criminals.
4. The relationship between criminality and intelligence may be considered indirect since criminal tendencies are manifested to a similar degree and with a similar frequency by offenders regardless of intellectual endowment.
5. Recidivism appears unrelated to the intellectual endowment since it occurs with essentially the same frequency among the mentally deficient offenders as among those of better intellectual capacities.
6. Recidivism, both for the feebleminded and those not feebleminded, is responsible for 49% of crime, thereby indicating by its very extent the ineffectualness of the present penal system for both deterrence and correction.
7. Habitual criminality appears to be accountable for 9.9% of offenders, and is more frequently found in offenders of normal or nearly normal intelligence.
8. There appears to be none or slight relationship between the gravity of the offense committed and the degree of intelligence possessed since both high and low grade feebleminded commit crimes as serious as those of their more intellectually gifted fellows.
9. There appears to be a greater tendency on the part of the low grade feebleminded to commit a greater number of the more serious crimes as judged by the duration of the sentence administered.
10. The extent of feeble-mindedness among recognized criminals and the marked recidivism among mentally deficient delinquents as well as among those not feebleminded indicates an utter inadequacy of the present social, judiciary, and penal systems to cope satisfactorily with the problems of criminality.
11. The feebleminded delinquents, despite the very questionable outlook of regeneration for them and regardless of their evident need of permanent segregation or supervision, receive the same sort of sentences and consequent treatment as their more normal brothers.
12. Only 16% to 23% of offenders, whether of normal, subnormal, or deficient intelligence, receive long term sentences despite the fact that an average of 56.7% are recidivistic or habitual offenders and hence difficult and doubtful in the main of regeneration.
13. There appears to be no relationship, except in certain specific instances and within the limitations imposed by the actual capacities of the individual, between

- intelligence and the type of the crime committed. The distribution of offenses is essentially the same for each level of intelligence.
- 14. Economic distress has a subjective value, approximately equally so for each level of intelligence, in the causation of crime, and as such a factor, it appears to be entirely environmental in nature.
  - 15. The influence of bad company has no greater subjective value in the causation of delinquency for the feeble-minded than for those of more superior intelligence.
  - 16. Alcoholism is a definitely recognizable subjective factor in delinquency. It is recognized to a similar extent at each level of intelligence, and hence may be considered as environmental rather than individual in nature.
  - 17. For each level of intelligence, a disproportionately high percentage of ex-service men are included among delinquents, thereby indicting military service as a genetic force in crime.
  - 18. There appears to be a considerable degree of relationship between the endowment of intelligence and the age distribution of offenders. The greater proportion of younger offenders is in the group of greater intelligence, and the greater proportion of older offenders is in the groups of lesser intelligence.
  - 19. There appears to be a somewhat decreased incidence of marriage among criminals in general, which is manifest to a similar extent for each level of intelligence.
  - 20. The combined defects of subnormal or deficient intelligence and criminality do not constitute an effective barrier to the marriage of the unfit.
  - 21. The extent of conjugal incompatibility among criminal classes, as evidenced by divorce and separation, is markedly increased above that of the general population. This holds true for each level of intelligence, but least so for the lowest level.
  - 22. The disruption of marital life may constitute a causative factor in the production of delinquency, or it may be coincidental evidence of additional inherent constitutional defects in the nature of the criminal.
  - 23. The criminal classes tend to reproduce themselves to almost the same extent as do the college-bred classes, the greater fecundity of the criminal classes being shown by the groups of lowest intelligence.
  - 24. Individual poverty appears to be a very definite factor in the causation of delinquency. As such a factor, it seems to be entirely environmental in nature since it is equally distributed for the various levels of intelligence.
  - 25. Parental poverty appears to constitute an indirect and environmental factor in the production of crime, manifest to an essentially equal degree for each level of intelligence. And as a result of this parental poverty, there is a very great dearth of homes affording educational and cultural opportunities.
  - 26. A significantly large percentage of criminals come from disrupted childhood homes, thereby suggesting that such homes are inimical to correct social development. With a decrease in intelligence there is a concomitant decrease in the percentage, with the low grade morons having the fewest number of disrupted childhood homes, thereby suggesting a lesser value for their type of homes.
  - 27. Individuals of foreign parentage appear to be responsible for an increased quota of crime as determined by population ratios. This is increasingly manifest as the

- endowment of intelligence decreases, the low grade moron of foreign parentage being responsible for more than 235% of the population quota of crime.
- 28. There appears to be an increased proportion of mixed percentage, one native-born, one foreign-born, among criminal classes thereby suggesting the probability of an unfortunate social result of such a home.
  - 29. The foreign-born individual not of subnormal or deficient intelligence appears to be responsible for no more than a fair share of delinquency as determined by population ratios.
  - 30. The foreign-born individual of subnormal or deficient intelligence appears to be responsible for an overwhelmingly increased incidence of crime as determined by population ratios. This increased incidence reaches the proportion of 327% of the fair quota for the low grade morons.
  - 31. Of the low grade feeble-minded offenders, 26% are aliens, and an average of 10% of all criminals are non-citizens.
  - 32. Of the foreign-born feeble-minded delinquents, a proportion equaling 16% of the entire number of mentally deficient have either applied for citizenship papers or have been granted them. This signifies a failure of the social provision of proper judicial machinery for the best handling of human material, and the protection of citizenship.

## **APPENDIX OF TABLES**

**TABLE I**  
GENERAL DISTRIBUTION ACCORDING TO INTELLIGENCE

	<i>No. of Cases</i>	<i>Percentage</i>
Total Number of Individual Cases Examined	1,690	100.00%
Cases Found of Normal Intelligence	852	50.41%
Cases Found of Subnormal or Low Intelligence	327	19.36%
Cases Found of High Grade Feeble-mindedness	408	24.14%
Cases Found of Low Grade Feeble-mindedness	103	6.09%

**TABLE II**  
TOTAL CRIMINAL HISTORY

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Normal Intelligence Group</i>		
Cases Guilty of Misdemeanors	388	45.54%
Cases Having:		
One Conviction	652	76.52%
Two or Three Convictions	173	20.31 %
Four or More Convictions	27	3.17%
Cases Having:*		
One Offense (a conviction)	336	39.44%
Two or Three Offenses	428	50.23%
Four or More Offenses	88	10.33%
<i>Subnormal or Low Intelligence Group</i>		
Cases Guilty of Misdemeanors	162	49.54%
Cases Having:		
One Conviction	257	78.59%
Two or Three Convictions	61	18.66%
Four or More Convictions	9	2.75%
Cases Having:*		
One Offense (a conviction)	128	39.14%
Two or Three Offenses	164	50.16%
Four or More Offenses	35	10.70%
<i>High Grade Feeble-minded Group</i>		
Cases Guilty of Misdemeanors	188	46.08%
Cases Having:		
One Conviction	330	80.88%
Two or Three Convictions	73	17.89%
Four or More Convictions	5	1.23%
Cases Having:*		
One Offense (a conviction)	171	41.93%
Two or Three Offenses	205	50.23%
Four or More Offenses	32	7.84%
<i>Low Grade Feeble-minded Group</i>		
Cases Guilty of Misdemeanors	51	49.52%
Cases Having:		
One Conviction	87	84.47%
Two or Three Convictions	15	14.56%
Four or More Convictions	1	.97%
Cases Having:*		
One Offense (a conviction)	50	48.55%
Two or Three Offenses	47	45.63%
Four or More Offenses	6	5.82%

\*In these cases, a history of misdemeanors constitutes a single offense, and conviction for felony constitutes all additional offenses.

**TABLE III**  
LENGTH OF SENTENCE

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Normal Intelligence</i>		
One Year or Less	72	8.45%
More than One Year and Not More than Two	226	26.52%
Three to Four Years Inclusive	231	27.11%
Five to Nine Years Inclusive	183	21.48%
Ten Years or More but Not Life Imprisonment	123	14.44%
Life Imprisonment	17	2.00%
<i>Subnormal or Low Intelligence Group</i>		
One Year or Less	32	9.79%
More than One Year and Not More than Two	93	28.44%
Three to Four Years Inclusive	95	29.05%
Five to Nine Years Inclusive	47	14.37%
Ten Years or More but Not Life Imprisonment	43	13.15%
Life Imprisonment	17	5.20%
<i>High Grade Feeble-minded Group</i>		
One Year or Less	43	10.54%
More than One Year and Not More than Two	124	30.39%
Three to Four Years Inclusive	100	24.50%
Five to Nine Years Inclusive	67	16.43%
Ten Years or More but Not Life Imprisonment	61	14.95%
Life Imprisonment	13	3.19%
<i>Low Grade Feeble-minded Group</i>		
One Year or Less	14	13.59%
More than One Year and Not More than Two	28	27.18%
Three to Four Years Inclusive	18	17.48%
Five to Nine Years Inclusive	19	18.45%
Ten Years or More but Not Life Imprisonment	19	18.45%
Life Imprisonment	5	4.85%

**TABLE IV**  
TYPE OF OFFENSE COMMITTED

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Normal Intelligence Group</i>		
Offenses against Property	486	57.04%
Offenses against Persons	57	6.69%
Offenses against Chastity and Morals	85	9.98%
Statutory Rape	69	8.10%
Automobile Thefts	69	8.10%
Abandonment	54	6.34%
All Other Offenses	32	3.75%
<i>Subnormal or Low Intelligence Group</i>		
Offenses against Property	168	51.38%
Offenses against Persons	32	9.79%
Offenses against Chastity and Morals	38	11.62%
Statutory Rape	36	11.01%
Automobile Thefts	18	5.50%
Abandonment	14	4.28%
All Other Offenses	21	6.42%
<i>High Grade Feeble-minded Group</i>		
Offenses against Property	188	46.08%
Offenses against Persons	32	7.84%
Offenses against Chastity and Morals	42	10.30%
Statutory Rape	62	15.20%
Automobile Thefts	24	5.88%
Abandonment	36	8.82%
All Other Offenses	24	5.88%
<i>Low Grade Feeble-minded Group</i>		
Offenses against Property	39	37.86%
Offenses against Persons	18	17.48%
Offenses against Chastity and Morals	17	16.51%
Statutory Rape	16	15.53%
Automobile Thefts	2	1.94%
Abandonment	8	7.77%
All Other Offenses	3	2.91%

**TABLE V**  
REASON, EXCUSE OR EXPLANATION

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Economic Distress</i>		
Normal Intelligence Group	173	20.31%
Subnormal or Low Intelligence Group	49	14.99%
High Grade Feebleminded Group	50	12.25%
Low Grade Feebleminded Group	16	15.53%
<i>Bad Company</i>		
Normal Intelligence Group	59	6.93%
Subnormal or Low Intelligence Group	24	7.34%
High Grade Feebleminded Group	22	5.39%
Low Grade Feebleminded Group	3	2.91%
<i>Liquor</i>		
Normal Intelligence Group	163	19.13%
Subnormal or Low Intelligence Group	76	23.24%
High Grade Feebleminded Group	90	22.06%
Low Grade Feebleminded Group	21	20.39%
Other reasons given for which no significance could be found were		
Drugs		
Ill-health		
Fun and Excitement		
Miscellaneous.		
No reason offered		

**TABLE VI**  
MILITARY SERVICE IN WORLD-WAR

	<i>No. of Cases</i>	<i>Percent of Group</i>
Normal Intelligence Group	159	18.65%
Subnormal or Low Intelligence Group	48	14.68%
High Grade Feebleminded Group	30	7.35%
Low Grade Feebleminded Group	14	13.59%

**TABLE VII**  
AGE DISTRIBUTION

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Twenty-one to Thirty Years Inclusive</i>		
Normal Intelligence Group	497	58.32%
Subnormal or Low Intelligence Group	187	57.19%
High Grade Feebleminded Group	215	52.69%
Low Grade Feebleminded Group	37	35.92%
<i>Thirty-one to Forty Years Inclusive</i>		
Normal Intelligence Group	209	24.54%
Subnormal or Low Intelligence Group	78	23.85%
High Grade Feebleminded Group	95	23.29%
Low Grade Feebleminded Group	38	36.90%
<i>Forty-one to Sixty Years Inclusive</i>		
Normal Intelligence Group	126	14.79%
Subnormal or Low Intelligence Group	50	15.29%
High Grade Feebleminded Group	79	19.36%
Low Grade Feebleminded Group	25	24.27%
<i>Sixty-one or More Years</i>		
Normal Intelligence Group	20	2.35%
Subnormal or Low Intelligence Group	12	3.67%
High Grade Feebleminded Group	19	4.66%
Low Grade Feebleminded Group	3	2.91%

**TABLE VIII**  
MARITAL STATUS

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Distribution of Unmarried</i>		
Normal Intelligence Group	372	43.67%
Subnormal or Low Intelligence Group	162	49.54%
High Grade Feebleminded Group	186	45.59%
Low Grade Feebleminded Group	48	46.60%
<i>Distribution of Married</i>		
Normal Intelligence Group	480	56.33%
Subnormal or Low Intelligence Group	165	50.46%
High Grade Feebleminded Group	222	54.41%
Low Grade Feebleminded Group	55	53.40%
<i>Distribution of Divorces*</i>		
Normal Intelligence Group	99	20.62%
Subnormal or Low Intelligence Group	31	18.78%
High Grade Feebleminded Group	45	20.27%
Low Grade Feebleminded Group	10	18.18%
<i>Distribution of Separations*</i>		
Normal Intelligence Group	28	5.83%
Subnormal or Low Intelligence Group	8	4.84%
High Grade Feebleminded Group	5	2.25%
Low Grade Feebleminded Group	2	3.63%
<i>Distribution of Widowed*</i>		
Normal Intelligence Group	27	5.62%
Subnormal or Low Intelligence Group	21	12.72%
High Grade Feebleminded Group	22	9.91%
Low Grade Feebleminded Group	4	7.27%

\*These tables represent only those individuals who are married or who have been married at some time.

**TABLE IX**  
SOCIAL AND ECONOMIC RESPONSIBILITY

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Married, without Children</i>		
Normal Intelligence Group	155	32.29%
Subnormal or Low Intelligence Group	41	24.85%
High Grade Feebleminded Group	47	21.17%
Low Grade Feebleminded Group	14	25.45%
<i>Married with One Child</i>		
Normal Intelligence Group	125	26.04%
Subnormal or Low Intelligence Group	42	25.45%
High Grade Feebleminded Group	62	27.94%
Low Grade Feebleminded Group	11	20.00%
<i>Married with Two Children</i>		
Normal Intelligence Group	97	20.21%
Subnormal or Low Intelligence Group	32	19.39%
High Grade Feebleminded Group	45	20.27%
Low Grade Feebleminded Group	8	14.55%
<i>Married with Three Children</i>		
Normal Intelligence Group	42	8.75%
Subnormal or Low Intelligence Group	19	11.52%
High Grade Feebleminded Group	22	9.90%
Low Grade Feebleminded Group	6	10.91%
<i>Married with Four or More Children</i>		
Normal Intelligence Group	61	12.71%
Subnormal or Low Intelligence Group	31	18.79%
High Grade Feebleminded Group	46	20.72%
Low Grade Feebleminded Group	16	29.09%

**TABLE X**  
INDIVIDUAL'S ECONOMIC STATUS

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Economic Status of POOR</i>		
Normal Intelligence Group	736	86.39%
Subnormal or Low Intelligence Group	282	86.24%
High Grade Feebleminded Group	360	88.23%
Low Grade Feebleminded Group	93	90.29%
<i>Economic Status of FAIR</i>		
Normal Intelligence Group	114	13.38%
Subnormal or Low Intelligence Group	44	13.46%
High Grade Feebleminded Group	48	11.77%
Low Grade Feebleminded Group	10	9.71%
<i>Economic Status of GOOD</i>		
Normal Intelligence Group	2	.23%
Subnormal or Low Intelligence Group	1	.30%
High Grade Feebleminded Group	...	...
Low Grade Feebleminded Group	...	...

**TABLE XI**  
PARENTAL ECONOMIC STATUS

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Economic Status of POOR</i>		
Normal Intelligence Group	250	29.34%
Subnormal or Low Intelligence Group	97	29.67%
High Grade Feebleminded Group	127	31.13%
Low Grade Feebleminded Group	31	30.10%
<i>Economic Status of FAIR</i>		
Normal Intelligence Group	580	68.08%
Subnormal or Low Intelligence Group	230	70.33%
High Grade Feebleminded Group	280	68.63%
Low Grade Feebleminded Group	72	69.90%
<i>Economic Status of GOOD</i>		
Normal Intelligence Group	22	2.58%
Subnormal or Low Intelligence Group	...	...
High Grade Feebleminded Group	1	.24%
Low Grade Feebleminded Group	...	...

**TABLE XII**  
CONDITION OF CHILDHOOD HOME\*

	No. of Cases	Percent of Group
<i>Childhood Home Unbroken</i>		
Normal Intelligence Group	545	63.97%
Subnormal or Low Intelligence Group	203	62.08%
High Grade Feebleminded Group	247	60.54%
Low Grade Feebleminded Group	73	70.87%
<i>Childhood Home Disrupted**</i>		
Normal Intelligence Group	307	36.03%
Subnormal or Low Intelligence Group	124	37.92%
High Grade Feebleminded Group	161	39.46%
Low Grade Feebleminded Group	30	29.13%

\*This table shows the status of the home previous to the individual's eighteenth birthday.

\*\*This data shows the homes disrupted by Death, Divorce, Desertion, or Separation.

**TABLE XIII**  
NATIVITY OF PARENTS

	No. of Cases	Percent of Group
<i>Parents of Native Birth</i>		
Normal Intelligence Group	417	48.95%
Subnormal or Low Intelligence Group	155	47.40%
High Grade Feebleminded Group	181	44.36%
Low Grade Feebleminded Group	23	22.33%
<i>Parents of Foreign Birth</i>		
Normal Intelligence Group	332	38.96%
Subnormal or Low Intelligence Group	134	40.98%
High Grade Feebleminded Group	183	44.86%
Low Grade Feebleminded Group	76	73.78%
<i>One Parent of Native, Other of Foreign, Birth</i>		
Normal Intelligence Group	103	12.09%
Subnormal or Low Intelligence Group	38	11.62%
High Grade Feebleminded Group	44	10.78%
Low Grade Feebleminded Group	4	3.89%

**TABLE XIV**  
CITIZENSHIP OF THE INDIVIDUAL

	<i>No. of Cases</i>	<i>Percent of Group</i>
<i>Native-born Citizens</i>		
Normal Intelligence Group	718	84.28%
Subnormal or Low Intelligence Group	271	82.87%
High Grade Feebleminded Group	322	78.92%
Low Grade Feebleminded Group	54	52.43%
<i>Aliens</i>		
Normal Intelligence Group	39	4.58%
Subnormal or Low Intelligence Group	22	6.73%
High Grade Feebleminded Group	36	8.83%
Low Grade Feebleminded Group	27	26.21%
<i>Aliens with First Papers</i>		
Normal Intelligence Group	26	3.05%
Subnormal or Low Intelligence Group	10	3.06%
High Grade Feebleminded Group	24	5.88%
Low Grade Feebleminded Group	11	10.68%
<i>Naturalized Citizens</i>		
Normal Intelligence Group	69	8.09%
Subnormal or Low Intelligence Group	24	7.34%
High Grade Feebleminded Group	26	6.37%
Low Grade Feebleminded Group	11	10.68%

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# Milton H. Erickson, M.D.

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September 1962



This is Milton H. Erickson speaking. I have been asked to make a recording of an induction technique. After much thought on this matter, I believe I can be of much greater service in another way.

My own induction techniques are expressive of me, of my timing, my rhythm, my personality, my emotional feeling, my attitude toward my patient. So it is with anybody else. And so it should be with anybody else. An induction technique is not a series of words, phrases, sentences. Nor is it just a matter of suggestions, intonations, inflections, pauses and hesitations. An induction technique is both simply and complexly a matter communication of ideas and understandings and attitudes by the doctor to his patient.

Instead of an induction technique, what I wish to present to you is my understanding of how the doctor should feel when undertaking to induce a trance: what he should understand about the situation, what he should know about himself, what he should understand and know about the patient. I wish to make clear what the induction technique situation actually is, what the doctor should knowingly, and understandingly expect of himself, and what he should reasonably expect of his patient. Only by having a full awareness of the nature and the character of the induction situation, and of the nature and the character of the induction technique itself, and by having a full clear awareness of himself and his patients (as participants in a common undertaking) can the doctor establish for himself and for his patient and intercommunication of understandings and expectations basic to the induction of hypnotic states.

In that communication there needs to be freely an awareness by the doctor of many things. First of all, he needs to be aware that the patient is seeking his help because the patient does not understand or cannot help himself in his needful condition. One must always, with utter intensity, view the patient as someone who is seeking help from the doctor because he honestly believes that that doctor can be helpful to him. Not to be continuously aware of this aspect of the interpersonal relationship renders defective the very foundation of any induction technique.

Next of importance, in establishing a good interpersonal relationship with the patient, is the need to be continuously aware and alert to the patient's own need to say, to tell, to ask, to advise, to request, to verbalize in some manner, or if not that, by facial expression, by gesture, by hesitancy, even by baited breath, to communicate in some way something the patient considers important to the patient and therefore important to the doctor. Simply to take charge of the total situation and to reassure the patient that the total situation is well in hand is not enough to develop a good climate for an induction. The

patient needs to know from the doctor's manner, bearing, alertness, attentiveness that every word, phrase, sigh, wince, expression of any kind; whether verbal, a gesture, hesitation, tension or whatever form the communication may take, will be noted and respected and examined carefully. And that more information will be sought if necessary. So that the patient can feel completely secure in his understanding that the doctor is in charge, is adequate to meet the situation and its demands, intelligently and with a full willingness to know all that is needed.

One builds an induction technique upon this kind of an interpersonal relationship. A full readiness and willingness for complete interpersonal communication (whether verbal or symbolic) between the doctor and the patient. By virtue of the doctor gently, willingly, with simple, quietly emphatic assurance, and comfort taking over the awareness of the needfulness of full interpersonal communication, there is established a most favorable situation for trance induction.

From the very beginning of the patient-doctor relationship there needs to be given (simply, quietly, gently, but emphatically, and best by manner and attitude) an assurance of the doctor's complete interest in and awareness of all the communication (verbal or symbolic) that the patient feels is necessary. One can say meaningfully to the patient that he should try hard to communicate all those obscure and difficult matters that might be overlooked in a careful search hindered by needless emphasis upon the obvious. And nothing he says should then be brushed aside as inconsequential.

Next of importance in the essential setting for a good induction technique is the doctor's own awareness of his own ability, his own knowledge and skill, and his full awareness that his own personal honesty will lead him to call in others available should he himself lack any special knowledge. To confess a weakness is not a sign of inferiority. Only the weakling does not dare to admit to a weakness. The strong man can and does and thereby wins and deserves respect. With this inner feeling of self-respect, the doctor can view his patient with a ready awareness of what he can do. And sense within himself a feeling of confidence in his abilities and a willingness to do his tasks, and if needful, to call in others. Thus he knows that he will not remain in a state of doubt and uncertainty, to be communicated to his patient should there be something he cannot do. Every doctor needs (in his dealing with a patient, to have as a full part of his self-awareness) an intense feeling of, "This I can do. And this other I can have done. And all the rest, if there is any more, lies in the hands of fate aided by all the good that I can do." Out of such an attitude as this, the doctor can then begin an induction with an appropriate and a full self-confidence.

Also to be realized, as a part of the foundation for a good induction technique, is the doctor's awareness that no matter who his patient is or what his patient's condition is, he the doctor still knows more, is better prepared, is more competent than anybody else in that situation. Therefore, because he is the only one present at the place and time who is knowledgeable, and competent, and because he can comprehend the needs of the situation, he is entitled rightly, justly, properly to have a full and ready confidence in his ability to meet the situation and to provide intelligently for the patient's needs. To be

simply, earnestly, and fully aware of this is most vital for a technique of induction that will inspire a patient with confidence.

Next of basic importance is the doctor's own understanding of hypnosis as a phenomenon in itself. He should know with absolute certainty that hypnosis is a phenomenon common in human experience both as an induced and a spontaneous development. He should know with utter certainty that hypnosis has been induced in many different peoples, in many different times, in many different situations. That hypnosis is possible for the old and the young, the sick and the well. That all of human history discloses that hypnosis is a phenomenon common to all people. With this well in mind, he can reasonably expect his patient to do the same thing that countless thousands have done throughout history, what countless thousands of patients are doing today, tomorrow, and next week, are doing every day for his colleagues throughout the world. With this in mind, and with full respect for his patient, he can confidently expect of his own patient a better accomplishment than that of patients in less tutored hands.

Knowing then that he can reasonably and rightfully expect his patient to accomplish as much thousands of other average patients have achieved, he can radiate full confidence and expectation to his patient as a nonverbal but highly effective communication which in turn will affect most favorably the effectiveness of the induction technique. Of basic importance in any induction technique is that the doctor, from the very beginning of his induction, realize that what is needful for his patient is not the words, not the tones, but the understanding of hypnosis as state of learning and being. It is not the words used that induce the trance. Rather it is the understandings given to the patient that a trance state is inevitable. And the words are no more than a means of helping him learn an inner process of self-experience. To induce a trance, one needs to communicate by words, bearing, manner, emotional attitude, intellectual awareness that the patient is really and truly expected, confidently expected, to be as able to learn how to develop a trance as readily and as well as any of his fellows. That it is not a matter of argument or elaborate explanation any more than is pain and distress. That with attention given, the patient's mind, by itself, can use the words employed to discover its own understandings of what is necessary in that needful situation to develop a trance. Thus by manner, attitude, bearing, in every conceivable way of expression, one simply expects and wants the patient to develop a trance and the words employed are thus only the means of communicating this expectation and confidence.

## **CRITICAL EVALUATIONS**

### **The Inhumanity of Ordinary People**

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**P**SYCHOLOGY is often defined as the scientific study of human behavior. That this is not entirely true has been made apparent innumerable times by factionalism and enforced restriction of theoretical conceptualizations, but even more by avoidance of a large area of human behavior. That such avoidance has occurred is understandable, because this area is often ugly, unpleasant, even offensive, however, constant throughout human history; but such avoidance is obviously unjustifiable. Not only have psychologists been at fault, but even worse, so have psychiatrists—worse because psychology deals primarily with normal human behavior and psychiatry with deviations therefrom. Any science worthy of being called a science cannot exclude a vast area requiring careful, thoughtful and intensive exploration, even though its exploration may lead to derogation, to misinterpretation, and to both deliberate and inadvertent confusion of issues.

It is my pleasure, both scientific and intellectual, to discuss briefly but, it is hoped, pertinently, the pioneer work done by Stanley Milgram. As a preliminary, I recall the old, old joke about the mother who rebukes her son for hitting his sister and pulling her hair, declaring it was the devil that made him do so; to which the son replies that maybe the devil did cause him to hit his sister and pull her hair, but it was really his own idea to kick her.

Throughout the ages everybody has tried to believe that normal psychological behavior includes only that which is good at the social level, and behavior adverse to the good of humanity has been attributed to various scapegoats. In recent times the murder of millions of people was attributed primarily to Hitler, and every "good" German defended his share in that effort at genocide as a proper carrying out of the orders of a superior. But we do not need to consider the offenses initiated by Hitler. We need only to look upon what happened to the aborigines of Tasmania, shot for food for the dogs of the settlers, to develop some unhappy but scientific thinking. One can recall in relatively recent history the nobility of the Puritans who came to New England and founded a colony so that they might establish the right of human beings to worship the Deity in freedom and without restraint imposed by others. But what about their persecution of Roger Williams? How did it happen that such noble purposes led to the discovery that "the only good Indian is a dead Indian"?

Or one may shudder at the horrors of the prisoner-of-war camps, both Japanese and German, as well as the concentration camps in Germany during World War II, but one must not forget to include, in that horror of man's inhumanity to man, the facts of Andersonville in the 1860's here in America, where Americans inflicted unbelievable atrocities upon Americans. Also, one need only look back upon the Ottoman Empire to realize that the crowning and life-expectancy of the

sultan was based upon the rapidity with which he caused the murder of all his brothers and half-brothers.

The world has been "kind" in overlooking the motivations of such examples as the treatment of Copernicus, the ravaging of the coast of Europe by the Vikings, or the sources of present day racial strife, preferring to discuss the behavior of humanity in terms of impersonal social forces. At times, man's inhumanity to man is given some euphemistic label, but no effort is made to investigate scientifically the extremes to which the normal, the good, the average, or the intellectual person or group will go if given the opportunity: consider the Spanish Inquisition, the Salem witch trials, or the introduction of slavery into a country dedicated to the right of everyone to equality and freedom.

Stanley Milgram has entered upon a program to discover the nature and character of what constitutes this psychological area and the forces which have been so blandly wrapped up in the undefined and disregarded phrase of "man's inhumanity to man." That his pioneer work in this field is attacked as being unethical, unjustifiable, uninformative, or any other derogative dismissal, is to be expected, simply because people like to shut their eyes to undesirable behavior, preferring to investigate memory, forgetting of nonsense syllables, conditioned reflexes, span of attention and similar kinds of behavior that do not arouse inner distress and anxiety.

But the need to discover and to study scientifically all forms of destructive behavior in men persists; such studies cannot be pushed aside because they disclose human behavior inconsistent with "good" understandings of "normal" behavior.

The fact is that Milgram, without employing duress or force, could create a situation in which an average, normal, intelligent individual would *of his own accord* inflict pain and misery upon a fellow human being, and, with sweating brow and inward fear and trembling, continue to inflict dire harm upon an innocent person, and continue grimly to the very limits possible of this behavior under no compulsion but a structured social situation.

It is time that society-particularly its psychologists and psychiatrists-takes a realistic view of the nature of undesirable and destructive human behavior and the extent to which, under stress or without stress, the individual, the group or an entire society can be led to enact it, so that understanding and perhaps eventually control of the ugly realities that have characterized human history since its beginning may result. Imperfections of research design are not the issue: Milgram is making a momentous and meaningful contribution to our knowledge of human behavior, much more important than the compartmentalized studies of units of behavior which may be more readily approved by society.

The capacity for behavior unacceptable both to the individual and to society is an area that has long been overlooked, and this area requires careful scientific investigation far more than does acceptable behavior. Unacceptable behavior is and has been the basis of the serious social disorders rampant throughout history. Now at last, here is a pioneer willing to say simply and emphatically, and to prove it by well-demonstrated scientific study in the laboratory, that normal and average human beings can be manipulated into inhumane behavior, and that the need is great to study the normal man from this aspect rather than to continue to regard such behavior either.

as incomprehensible or as evidence that the person involved is somehow aberrant, abnormal and atypical.

When Milgram's initial study appeared, he was already well aware that an area of scientific investigation was being opened which would lead to reproaches and condemnation and to forgetfulness of much that constitutes a part of human history that is looked upon, if at all, only after it has been obscured with rosy colors. To engage in such studies as Milgram has requires strong men, with strong scientific faith and a willingness to discover that to man himself, not to "the devil," belongs the responsibility for and the control of his inhumane actions.