11

A Model for Lucidity Training as a Means of Self-Healing and Psychological Growth

PAUL THOLEY

The theoretical principles for the psychotherapeutic use of lucid dreaming are outlined in view of my own first lucid dream studies and experiences. These are based on the field theoretical assumptions of Gestalt psychology that the personality is capable of self-healing and growth. In this way, lucid dreams have proven to be helpful. I will point out that one can discern unconscious conflicts and contribute to solving them during these dreams through appropriate behavior of the dream ego. Conciliatory interaction with threatening dream figures seems to be important in diagnosis and therapy. For instance, the way in which the dream ego should react in order to deprive a threatening figure of its dangerous character will be examined. I will argue, in accordance with the theoretical assumptions that conciliatory interchange is the most effective principle.

Based on the findings of this and other empirical investigations, a self-healing program using lucid dreams was developed. This program was first tested by individuals not in psychotherapy. Because of the positive effects of the self-healing program on their dreaming and waking life, it was finally applied in psychotherapy. By referring to several case histories, I will explain how this program is suited to abolishing different emotional disorders, which are rooted in unconscious conflicts.

PAUL THOLEY • Psychological Institute, Johann Wolfgang Goethe University, Frankfurt, West Germany.

J. Gackenbach et al. (eds.), *Conscious Mind, Sleeping Brain*

RETROSPECTIVE VIEW OF MY OWN WORK WITH LUCID DREAMS

My present research on lucid dreams goes back to 1959. I was previously unaware of the phenomenon of lucid dreaming. When I started studying psychology, I began to take an interest in the content of my dreams. It occurred to me that the dreams might be consciously experienced. I started with the basic assumption that if a subject in the waking state develops a critical-reflective attitude toward his or her momentary state of awareness by asking himself or herself if he or she is awake or dreaming, then this attitude can be transferred to the dream state. As a rule, the unusual nature of dream experiences makes it possible for the subject to recognize that he or she is dreaming.

Consequently, every day I repeatedly asked myself whether I was awake or dreaming. Four weeks later I had success. My first experience of being conscious that I was dreaming was when I realized that I had met my aunt, whom I knew to be deceased. Otherwise, everything in the dream seemed to be real. I was fascinated by this dream experience, especially because of the unbelievable authenticity of the scene and the phenomenal realness of my own body. However, after a while, I was overcome by a feeling of anxiety; indeed, I had never heard of such states of awareness. But, on my aunt's advice, I stared closely at a flower. This feeling faded, and then I woke up about 10 seconds later.

I was so impressed by this dream that I was really looking forward to experiencing other phenomena of that kind—of course, without the feeling of anxiety. Thus I had to find a method that would allow me to wake up from such dreams when desired. Moreover, I had read about the physiological findings regarding the association of REM sleep with dreaming (Aserinsky & Kleitman, 1953). Consequently, by also relying on supplementary assumptions, I presumed that one could end a dream by fixing one's gaze on a stationary point in the dream surroundings. I thereby remembered in my previously described dream, after staring at the flower, that I had awoken. This hypothesis proved to be correct in experiments with other subjects (Tholey, 1973, 1977, 1983a).

I had coined the German term *Klartraum* (which actually corresponds to the English term *clear dream*) to describe the phenomenon of conscious dreaming, and I later distinguished between seven aspects of clarity in these dreams. I only became aware of the term *lucid dream,* which was coined by van Eeden (1913), 10 years after my first experiments with this kind of dream, through reading Green (1968) and Tart (1969).

I called the method which I developed for inducing lucid dreaming the "reflection technique." In later research, I developed a number of other techniques for inducing dream lucidity (Tholey, 1982b, 1983b). My first experiments with other subjects who had learned lucid dreaming by using my reflection technique were especially useful in clarifying certain problems with perception, memory, thinking, and psychophysiological processes in the lucid dream state.

The foundation for my interest in psychotherapeutic applications of lucid dreaming was laid when I realized that threatening and helping figures could appear in lucid dreams. The main problem was to determine how to deal with these dream figures in order to obtain positive effects in the dreaming and waking life. I relied on my own dream experiences. To illustrate:

> After my father's death in 1968, he often appeared to me in my dreams as a dangerous figure, who insulted and threatened me. When I became lucid, I would beat him in anger. He was then sometimes transformed into a more primitive creature, like a dwarf, an animal, or a mummy. Whenever I won, I was overcome by a feeling of triumph. Nevertheless, my father continued to appear as a threatening figure in subsequent dreams. Then I had the following decisive dream. I became lucid, while being chased by a tiger, and wanted to flee. I then pulled myself together, stood my ground, and asked, "Who are you?" The tiger was taken aback but was transformed into my father and answered, "I am your father and will now tell you what you are to do!" In contrast to my earlier dreams, I did not attempt to beat him but tried to get involved in a dialogue with him. I told him that he could not order me around. I rejected his threats and insults. On the other hand, I had to admit that some of my father's criticism was justified, and I decided to change my behavior accordingly. At that moment, my father became friendly, and we shook hands. I asked him if he could help me, and he encouraged me to go my own way alone. My father then seemed to slip into my own body, and I remained alone in the dream.

This lucid dream had a liberating and encouraging effect on my future dreaming and waking life. My father never again appeared as a threatening dream figure. In the waking state, my unreasonable fear and inhibitions in my dealings with persons of authority disappeared. With regard to psychotherapeutic use of lucid dreaming, the aforementioned dream was a key experience. I came to the following conclusions about appropriate behaviors toward threatening dream figures:

1. It is useful to confront the threatening dream situation despite rising fears.
2. It is better to reconcile with the dream figure through constructive dialogue than to attack it aggressively.
3. After the dialogue, the threatening figure can be transformed into a friendly one, who can provide help.
4. The following dream brought me to the fourth conclusion. A constructive dialogue is not possible with some hostile dream figures. Therefore, it is useful to separate oneself from these figures.

Although I was able to effectively treat people suffering from nightmares with these basic therapeutic principles, my research on lucid dreaming was rejected by psychologists in West Germany. Also, my offer to be a subject in the sleep laboratory was declined. At this time, I had the following lucid dream:

> In the lucid dream state, I was flying over a street in which I wanted to land. Suddenly an ugly fellow appeared, who shouted up to me, "Nobody can fly! It's physically

> impossible. It should be forbidden. I'm going to tell the police!" When I asked him who he was, his head took on doglike characteristics and he said angrily, "A top dog." When I tried to involve him in a dialogue, he screamed at me that he did not want to talk to me. It became clear to me that the dream expressed my conflict between the desire to research lucid dreaming and the fear of academic psychologists' negative sanctions. I decided during this dream to continue research and to make it public. At that moment, an enormous fence rose between me and the "top dog." I then flew from the scene, at which point the other dream figure was transformed into a tiny pup, which finally disappeared.

In 1973 I presented an extensive report of my lucid dream research at the University of Frankfurt/Main. Some of my colleagues considered me to be a fantasist, whereas some of my students saw me as a guru. At that time, I had the following lucid dream:

> I met my brother [2 years older than me] in the lucid dream state. He insulted me and told me he had always been superior to me. He criticized me for playing the role of a guru in order to outdo him. He then brought my attention to a balloon in the form of an inflated Buddha. I knew that he identified me with this inflated Buddha, and I came to the conclusion that my brother was not entirely wrong in doing so. Then two hands appeared from heaven and clapped so that the balloon burst. After this, my brother approached me in a friendly manner.

It became clear to me, through this dream, that I was pursuing a secondary goal of superiority in my work. This goal, which had been unconscious to me until then, stemmed from a childhood rivalry with my older brother. The dream led me to a less ego-centered and more critical attitude toward myself. It also encouraged me to commit myself to goals, which I considered important, even though such a decision might damage my professional prestige.

Because of my own lucid dream experiences and similar experiences with other subjects, I became convinced that interaction with dream figures, whether they are human, animal, or mythical, has a special place in mental hygiene. For that reason, empirical tests were made as to which form of interaction with dream figures was most effective. Before these empirical studies are outlined, the theoretical foundations of our basic psychotherapeutic principles will be described.

BASIC THEORETICAL PRINCIPLES

In our research program, during interpretation of findings and for the psychotherapeutic application of lucid dreaming, we relied on the field theoretical approach of Gestalt psychology.[1] The field theory is based on a dynamic model

[1]Gestalt psychology was founded by Wertheimer, Koehler, Koffka, and Lewin. Meanwhile, it has developed to an elaborated theoretical system that extends to border areas of science (cf. Tholey, 1980d). Gestalt psychology should not be confounded with the so-called Gestalt therapy of Fritz Perls (1969) that has various theoretical weaknesses (cf. Henle, 1978; Tholey, 1984b).

of personality. As opposed to the psychoanalytical point of view, which is also based on a dynamic model, the field theory does not consider behavior as solely based on organismic drives but rather as dependent on the total psychological field (psychological person and psychological environment). The personality can be viewed as composed of many subsystems (i.e., drives, needs, goals, moral demands, social requirements), which are in dynamic interaction with one another. Based on experimental findings concerning symbol formation (for a survey, see Leuner, 1962), the dynamics of the personality can find expression in dreams. Because the unconscious facts are "projected" symbolically, Freud (1900) considers the dream as the *via regia* (the royal road) to the unconscious. However, the therapist is the leader along this road, so that the therapeutic effects may largely depend on his or her theoretical bias. Hence, we consider the use of lucid dreaming important as it enables the subject to find his or her own way to his or her unconscious and its integration into the personality.

Compared to nonlucid dreams, the lucid dream has the following advantages:

1. Because of the lucidity, the dream ego is less afraid of threatening dream figures or situations. For this reason, there is less resistance to confrontation with these figures or situations.
2. Using appropriate techniques for manipulating lucid dreaming, the dream ego can get in touch with places, times, situations, or persons that are important to the dreamer.
3. Especially in dialogue with other dream figures, the dream ego is able to recognize the present personality dynamics and their etiology (diagnostic function).
4. Through appropriate activity of the dream ego, a change of personality structure is possible (therapeutic or creative function).

In this way, the lucid dream is helpful for self-knowledge, self-healing, and self-actualization. This is possible because, according to the field theory, the symbolic dream events are in dynamic interaction with the symbolized psychological facts. For example, an interpsychic or psychosocial conflict can be expressed in threats from a hostile dream figure. On the other hand, the reconciliation with this dream figure can contribute to the resolution of the conflict.

EMPIRICAL RESEARCH SURVEYED

The following questions arise regarding: the psychotherapeutic applications of lucid dreaming:

1. How can one learn techniques for inducing and manipulating lucid dreaming?

2. How should the dream ego act within a lucid dream in order to obtain positive effects in dreaming and waking life?
3. How should the therapist and the client interact in lucid dream therapy?

Our empirical research has been based on these three questions. Because we described the techniques for inducing and manipulating lucid dreams in earlier articles (Tholey, 1982b, 1983b), we only briefly refer to them here. In our research, we realized that it was not the dream lucidity itself that induced the positive effects; rather, it was the dream ego's activity in the lucid dream. In lucid dreams, one may avoid dealing with conflicts that have arisen, or one can confront them and thus contribute to their solution (cf. LaBerge, 1981). It has become evident that the interaction of the dream ego with other dream figures is significant for both diagnosis and therapy. For this reason, we also investigated, in our empirical studies, how certain forms of interactions with dream figures affect (a) the events in the present lucid dream, (b) future dreaming, and (c) waking life.

Field theory is significant, not only for its theoretical structure but also for its methodological approach. Thus, in our exploratory studies, we used the method of stepwise approximation of theoretical and empirical work (Lewin, 1940), which is similar to the "dialectical approach" of Malamud (1978).

In our investigations, we used the so-called phenomenological-experimental approach (for a survey on this approach, see Kebeck & Sader, 1984; Tholey, 1986a). In contrast to traditional experimental research, the independent and/or dependent variables are of a subjective nature. In spite of this, the results of such experiments do possess a certain degree of intersubjective validity, provided that a sufficient number of individuals report, independent of one another, on identical experiences. In order to be able to speak of experiments, the independent variables must be varied in analog form as in objective experiments. In the phenomenological-experimental approach to lucid dream research, the experimenter instructs the subjects in the way in which they are to vary their behavior during lucid dreaming. It is also the experimenter's task to observe the effects that take place and to draw up reports for each subject after they have awoken (Tholey, 1980b). The variations may either concern the activity of different test groups and/or the activity of individual subjects. We carried out a number of investigations testing psychological and psychophysiological assumptions about lucid dreaming. Here we will describe only those phenomenological experiments in which the influence of the dream ego's activity on the expressions, appearances, statements, and behaviors of other dream figures was examined.

Based on this research, we developed a self-healing program using lucid dreaming. This program was tested by people not in psychotherapy. Because of the positive effects of this self-healing program on their dreaming and waking lives, the program was used in psychotherapy in the following case studies. In our program, we used the field theoretical method of reconstruction of single

cases (for details see Kebeck, 1983). Due to space limitations, the empirical experiments can only be featured here in a shortened form. Consequently, details concerning the methodology and the findings are omitted.

PHENOMENOLOGICAL EXPERIMENTS ON INTERACTIONS WITH DREAM FIGURES

Problem

In phenomenological-experimental research on lucid dreaming, several difficulties can arise. Gillespie (1984) indicates 12 "problems related to experimentation while dreaming lucidly." However, he only mentions the awareness that one is dreaming as criterion for the lucid dream state (1983). For Tart (1984, p. 5), this is "a necessary but not a sufficient criterion for labeling a dream 'lucid.' In my opinion, a dream can only be called "lucid," according to van Eeden's definition (1913) if, as well as being aware that one is dreaming, the dreamer also recalls one's waking life, is in full command of one's intellectual abilities, and has control over one's own activity. It is, however, this clarity about the possibility of controlling one's own activity that first alters entirely the nature of the dream (cf. Tholey, 1986b). Being able to recollect one's waking life, and having control over one's own activity are necessary requirements for the phenomenological-experimental approach to lucid dream research.

We took this fact into account in applying the various techniques for inducing lucid dreams. Subjects were instructed to carry out actions such as simple motions (cf. Tholey, 1983b)—actions planned in the waking life—on achieving lucidity. This would seem to explain why almost all of the subjects could recall their waking lives and were aware of the control over their own activity, so that several of the problems mentioned by Gillespie (1984) become irrelevant. The control of the dream ego over one's own activity does not mean that the dream ego is in a position to manipulate the entire dream; there are certain limitations to such manipulation (cf. also Tholey, 1983b; Gackenbach, 1986).

Our interest in these experiments was with the ability of the dream ego, when interacting with a hostile dream figure, to eliminate its threatening character. However, in our phenomenological experiments, difficulties arose. For example, it was necessary for the subjects to have lucid dreams in which hostile dream figures appeared. Indeed, experienced lucid dreamers have various means to facilitate their meeting such figures. Our experiments were limited by ethical concerns because, in our exploratory studies, some types of activities of the dream ego would lead to unpleasant effects; we noted destructive behavior toward a hostile dream figure (e.g., killing the figure) as well as totally submissive behavior toward the dream enemy's aggression (e.g., letting oneself be killed).

In the first case, feelings of euphoria as well as strong feelings of fear and guilt were aroused, and these continued even after awakening. In the second case, feelings of fear and discouragement were almost always noted. In this context, we should also emphasize that recent experimental findings (Tholey, 1985) suggest that some dream figures might have an independent awareness. They behave as if they possessed their own perceptual perspectives, cognitive abilities (memory and thought), and even their own motivations. Also, they might suffer pain. We concluded from this that we must treat dream figures as if they were real "beings." Nevertheless, in our early experiments on lucid dreaming, aggressive or submissive behavior of the dream ego was tolerated to a certain extent, in order to observe and analyze the influence of these forms of behavior on the threatening or hostile dream figures. In particular, in six separate phenomenological experiments, the appearance, statements, and behavior of the hostile dream figure's influence on the following was tested:

1. When the dream ego was inspired with fear or courage.
2. When the dream ego looked away from the dream figure, or looked at him openly.
3. When the dream ego conducted submissive or conciliatory dialogue.
4. When the dream ego conducted aggressive or conciliatory dialogue.
5. When the dream ego displayed submissive or conciliatory behavior.
6. When the dream ego displayed aggressive or conciliatory behavior.

Three forms of dialogue and three forms of behavior of the dream ego have been proposed. However, in each of the six experiments, only two forms of activity were tested in order not to demand too much from the subjects.

Method

The subjects were 38 male and female students who had learned to dream lucidly, using our techniques. Some of the students participated in more than one of the six experiments. To adapt their emotional, visual, verbal, and bodily activities while dreaming lucidly, according to the demands of the experiment in which they were taking part, the various forms of activities were explained to the subjects in detail. The subjects were told various techniques for inspiring feelings of fear and courage, techniques that I had developed in investigations in sports psychology. Furthermore, in conciliatory dialogue, the subjects were instructed that they should approach the hostile dream figures with friendly gestures. Instead of resorting to attack, they should protect themselves against the dream enemy's attacks. Finally, if possible, the subjects were instructed to end the lucid dream only after the dream figures had lost their threatening character.

In each experiment, an analysis was made of the subject's first lucid dream in which he or she was confronted by a hostile dream figure and acted according

to his or her experimental instructions. If the subject observed the expected change in the threatening nature of the hostile figure, it would be considered a success; if not, a failure was registered.

Results and Conclusion

Our statistical inference is based on the Bayesian statistics, which have been argued to be superior to significance testing (for details see Tholey, 1980c, 1982a). The Bayesian approach renders possible the calculation of the probabilities of the hypotheses (for an introduction to elementary Bayesian methods see Hays, 1973, Chapter 19). It can be seen in Table 1 that the first five tested hypotheses have a very high probability of being correct. Thus it seems to be helpful if the dream ego approaches the hostile dream figure in a courageous manner, looks at him openly, conducts a conciliatory dialogue with him and shows his willingness for reconciliation.

The qualitative results show important details. In changing the dream ego's activity, the hostile dream figures displayed transformation processes of various kinds. If the dream ego courageously faced up to the hostile dream figure, this figure itself often began to shrink. If the dream ego alternatively allowed himself to be anxious, the hostile figure sometimes began to grow. While shrinking or growing, the dream figures sometimes changed their guise, so that, for example a snake became a worm and vice versa.

If the dream ego looked openly at the hostile dream figure, its appearance

Table 1. Effects of the Dream Ego's Activities on the Threatening Nature of Other Dream Figures

Dream ego's activities	n^a	r^b	$P(H)^c$
1. Inspiring with fear/courage	16	12	.98
2. Looking away/openly Dialogue	15	12	.99
3. Submissive/conciliatory	17	14	.99
4. Aggressive/conciliatory Behavior	15	12	.99
5. Submissive/conciliatory	18	15	.99
6. Aggressive/conciliatory	18	10	.67

[a]Number of subjects

[b]Number of successes (decrease of the threatening nature of other dream figures according to the hypothesis).

[c]Probability for the tested hypothesis H, that the probability for success $\pi > 5$, given the values for n and r. The values for $P(H)$ have been calculated according to the Bayesian statistics. We used the tables of Pearson (1968) for computation of these values.

often became less harmful. In this case, looking directly into the eyes of the hostile figure seems to have a special meaning. According to the reports of the subjects, the dream ego can keep a hostile figure at a distance by looking into his eyes. On the other hand, several dream figures were able to escape the gaze of the dream ego by jerking their heads, by putting on a cowl, or by attacking the dream ego from the rear (see also Tholey, 1985).

As with our exploratory studies, in our experimental research, the conciliatory dialogue proved to be the most effective principle. The friendly approach of the dream ego often caused progressive transformations of the hostile dream figures. It seems that these are changes from lower-order into higher-order creatures, that is, the transformation of an animal or mythological figure into a human being. These transformations and the dream figure's responses often allowed the subjects to immediately understand the meaning of the dream. This sometimes occurred with the defenseless attitude in a dream dialogue, that is, when the dream ego did not reject insults or threats. When the dream ego reverted to a verbal attack, regressive transformations of dream figures were sometimes observed. For example, a mother figure was transformed into a witch and finally into a beast.

Regressive transformations of dream figures were very often experienced after bodily attacks of the dream ego. In most cases, the dream ego conquered the dream enemy and subsequently experienced feelings of triumph or euphoria. Sometimes these feelings were mixed with anxiety or guilt. In the latter case, other dream figures sometimes appeared as "avengers." Defenseless behavior almost always led to unpleasant experiences of fear or discouragement, and hostile dream figures would often win out in size and strength. Depending on the dream ego's conciliatory behavior, the originally threatening dream figures would generally become more friendly in appearance and behavior.

The quantitative and qualitative results of the phenomenological experiments just described are consistent with our basic theoretical concepts and the resultant hypotheses on the effects of different types of interactions of the dream ego with threatening dream figures.

EMPIRICAL INVESTIGATION OF A SELF-HEALING PROGRAM USING LUCID DREAMS

Problem

Based on exploratory research in a study group and phenomenological experiments of the kind just described, we developed a self-healing program. This program contains guidelines (1) on the techniques for inducing and ending lucid dreams, (2) on methods for incubating and manipulating the contents of

lucid dreams, (3) on the appropriate behavior regarding resistance (such as "defense" or "avoidance" mechanisms), and (4) on helpful principles for interaction with other dream figures. Examples were used to illustrate the program.

We consider the mere induction of dreaming lucidly as a step toward healing. The usual dream state, in which lucidity is not achieved, we regard as a form of consciousness disorder (Tholey, 1985).

The instructions for the incubation of the content of lucid dreams were similar to the ones used for nonlucid dreams (cf. Stephan, 1984). The subjects were advised that they could obtain help for special problems by thinking about their problem before falling asleep. Furthermore, the subjects were told how they could manipulate the dream content within certain limits while dreaming lucidly. It was stressed that the confrontation with unpleasant dream situations or figures is very important for the diagnostic and healing processes.

We recommended that the subjects should even purposely look for threatening dream situations or figures if these did not appear of their own accord. This is consistent with the work of Kuenkel, who argues that the true way to healing is through the "barking pack" of the "dogs of the unconscious" (Kuenkel, 1934, p. 225). If they do not appear spontaneously, they must be sought in their hiding places. Only through reconciliation with these "dogs" can emotional balance be obtained, according to Kuenkel. Based on our exploratory research, the subjects were instructed that the way to threatening dream situations and figures is as from the light into the dark (e.g., from an open field into a wood), from above to below (e.g., from the surface of a pond to the bottom of it), or from the present to the past (e.g., from adulthood into early childhood). Nevertheless, different forms of resistance can arise on the way to the unconscious. For instance, the dreamer can be responsible for his or her lack of success in achieving or retaining the lucid dream state (for examples, see Tholey, 1980b), sometimes resulting in a "false remaining awake" or a "false awakening" (Tholey, 1983b). Additionally, while dreaming lucidly, a resistance can be expressed in feelings of fear when approaching unpleasant situations. Furthermore, in the dream-environment, obstacles, like fences, locked doors, or invisible forces, can bar the way of the dream ego. Finally, dream figures can divert the dream ego by using warnings, threats, or bodily violence.

In our self-healing program, the different forms of resistance were explained. The subjects were advised to not seek out very threatening situations or figures in their first lucid dreams but to slowly confront unpleasant experiences. The subjects were also told that, while dreaming lucidly, one can look for an ally or a "pacemaker" (cf. Leuner, 1978), who in the early stages accompanies the dream ego on its way to the unconscious. Such a dream figure often appears in the role of an internal self helper (ISH) (cf. Sally, 1985).

At the core of our self-healing program was advice on how to deal with different situations with hostile dream figures. The following instructions were given to the subjects:

1. *Confrontation*: Do not attempt to flee from a threatening dream figure. Rather, confront him courageously, look at him openly, and ask him in a friendly way, "Who are you?" or "Who am I?"[2]

2. *Dialogue*: If it is possible to address the dream figure, try to come to a reconciliation with him through a constructive dialogue. If agreement is impossible, try to arrange the conflict as an open dispute. Moreover, refuse his insults or threats, but recognize his justified objections.

3. *Fight*: Do not surrender to an attack by a dream figure. Show your readiness to defend yourself by taking a defensive position and by staring at the dream figure in his eyes. If a fight is unavoidable, attempt to conquer the dream enemy but do not try to kill him. Offer reconciliation to the conquered enemy.

4. *Reconciliation*: Attempt to reconcile in thought, words and/or gestures with the hostile dream figure.

5. *Separation*: If a reconciliation does not seem possible, separate yourself from the figure in thought, words, and/or bodily withdrawal.

Sometimes you must also leave a dream figure with whom you have become reconciled. For example, if you recognize that this figure represents a person, who once meant a lot to you but is no longer attainable (whether because of death or the dissolving of a partnership), thank this person for his former accompaniment on your path of life before you leave him.

6. *Seek help*: After reconciliation with a dream figure, ask him whether he can help you. Then you can mention specific problems in your waking or dream life.

Method

A preliminary self-healing program using lucid dreaming was applied and, based on its findings, improved, according to the method of successive approximation. Then, in a corrected and elaborated form, the program was presented and discussed at a university and was featured in the German media. As a result, I received many letters from persons of different sex, ages, and occupations. The results discussed next refer mainly to reports from 62 male and female students, with whom we had contact over a period of at least one year after they had learned to dream lucidly. We asked them questions about their lucid dream contents and the effects of these dreams on their waking and dream life.

Results and Conclusion

The most important quantitative results concerning the contents of these subjects' lucid dreams are diagnosed in Figure 1. We examined only those lucid

[2]All guidelines refer basically to all kinds dream figures; thus instead of simply "him," one may always read "him, her, its," and so forth.

dreams in which there was real confrontation with a hostile dream figure. These included 282 lucid dreams from the 62 subjects. Overall, 77% of the hostile dream figures had been deprived of their threatening nature. Reconciliation was gained with 33% of them. In most cases, this was achieved by dialogue. The percentage of cases in which subjects obtained help from the dream figures after reconciliation is small. However, subjects more often had help from dream figures that had appeared friendly from the beginning. There were more reports of successful conciliatory activity compared to our earlier work where we had not given instructions concerning interactions with other dream figures.

To fully demonstrate the effectiveness of the self-healing program, a de-

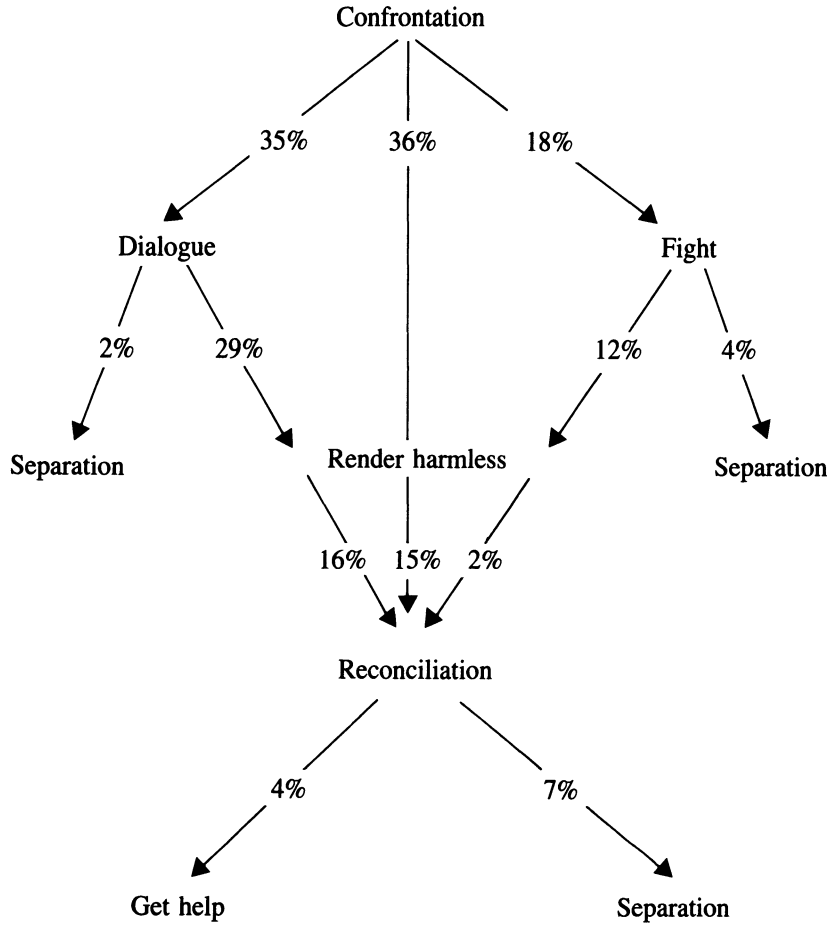

Figure 1. Percentage of principles in interaction between dream ego and threatening dream figures. (All percentages refer to the total number of 282 dreams. Missing percentages: dreamers who awoke.)

tailed description of single cases should be presented. Due to space limitations, we will only refer to our own lucid dreams and the case studies of six clients.

The majority of the clients reported positive effects on their subsequent dreaming and waking lives. "Normal" dreams were experienced as more pleasant and meaningful. Furthermore, 66% of the clients were able to resolve problems and conflicts of various kinds by means of their lucid dreams. In waking life, they felt less anxious (62%), more emotionally balanced (45%), more open-minded (42%), and more creative (30%). However, 22% of the participants reported transitory negative symptoms. In cases where a client, contrary to our instructions, fled from a threatening dream figure, feelings of discouragement appeared. After the confrontation, feelings of anxiety or guilt eventually arose if the client was still able to accept the gained insights. Sex differences were not found.

A more detailed analysis of the clients' self-reports and the continuous observations by the investigators led to the conclusion that the positive effects should not be interpreted as changes of the discrete dimensions of the personality but as consequences of a structural alteration of the personality. From the psychoanalytic perspective, an increase in ego strength would have been reported. However, we would prefer to use the term *confirmation of courage* (or self-reliance). The latter is an attribute of the entire personality. This courage (self-reliance) is gained by a confrontation with threatening situations or persons during lucid dreaming and, what is more important, from a recognition of needs or goals that had previously been denied and were working as isolated complexes in the personality. However, confrontation with threatening dream figures and conflicts requires a certain amount of courage as strong resistances have to be overcome.

Furthermore, confirmation of courage (self-reliance) is closely related to a change from an ego-centered attitude to a situation-oriented attitude. Ego-centeredness impedes perception, creative activities, shaping, and acting (cf. Wertheimer, 1959; Metzger, 1962) and is responsible for several emotional and psychosocial disorders (cf. Kuenkel, 1982; Metzger, 1976). An insight into the demands of the whole psychosocial situation is accomplished by overcoming ego centeredness. The person is now ready to behave courageously and in creative "freedom" (for theoretical and empirical details, cf. Metzger, 1962; 1976).

The results of other clinical research on the effects of lucid dreaming is consistent with our findings (e.g., Malamud, 1979). Malamud developed a self-healing program for the increase of lucidity in dreams, waking dreams, and in waking life. The increase of lucidity was associated with awareness, liberty, and safety, in the imaginal realm, and insight into dreaming and daydream imageries, the latter also being an important condition for personal growth and integration. She did not, however, discuss the principles of these changes. Research on the relation between the ability to dream lucidly and various person-

ality dimensions is not directly comparable with our results because of the different methodological approaches. Nevertheless, it seems remarkable that frequent lucid dreamers were less tense, anxious, and neurotic, and more likely to have more ego strength, emotional and physical balance, creativity, and risk-taking ability; we here refer, above all, to the extensive research of Gackenbach (cf. Gackenbach, 1978, 1980; Gackenbach & LaBerge, 1984; see her chapter elsewhere in this book).

On the other hand, the results are inconsistent and puzzling, for example the "lack of a self-concept difference between the two lucid dreaming groups and the non-lucid dreamers" (Gackenbach, 1980, p. 258). In our opinion, these results might be better understood by examining how lucid dreams have been dealt with. Several subjects who spontaneously dreamed lucidly reported that their lucid dreams were only used for their delight, that is, for flying or for "sex and crime." Although there are no objections against enjoying lucid dreams for their own sake, for self-healing, a confrontation with one's own conflicts and experiences are indispensable conditions.

In the latter context, it is remarkable that we noted positive effects of lucid dreaming on athletic skills in our work with sport students. The sports involved used much physical balance (for this concept, see Tholey, 1984d) as well as risk taking, for example, skiing and skateboarding. Originally, we traced the positive effects of dreaming lucidly to improvements in the organization of the sensory field (Tholey, 1981). Elsewhere (Tholey, 1984c), we found a relationship between athletic ability improvement and a change from an ego-centered to a situation-oriented personal attitude. From a Gestalt psychological perspective (cf. Metzger, 1962), this change promotes sensitivity of perception and interpersonal courage. This is especially relevant for those sports in which quick and risky reactions to changing situational conditions are prevalent. Gestalt psychology and certain teachings in Zen Buddhism (Kohl, 1956; Metzger, 1962; Tholey, 1984c) support this relationship between the personality structure and athletic processes.

CASE STUDIES OF A PSYCHOTHERAPEUTIC PROGRAM USING LUCID DREAMS

Problem

The aforementioned study will now be supplemented by six clinical case histories of patients who sought psychotherapy. It is assumed herein that our self-healing program can be effective with clients who cannot resolve their own problems. We see it as the basic duty of the therapist to provide the patient with

the means of self-help; to support him or her in a trustworthy way with our method; and to protect him or her from discouragement in the face of resistance. With a few patients, it was necessary to complement the described self-healing program with other therapeutic techniques.

Method

The program was offered by different therapists to patients who complained of the following symptoms: (1) recurring anxiety dreams or nightmares; (2) other anxiety or phobic symptoms, for example, fear of snakes, dogs, height; (3) symptoms of psychogenic depressions; (4) psychosomatic symptoms of various kinds, for example, blushing; (5) addiction symptoms, for example drug abuse, or (6) social adjustment difficulties, for example shyness, problems with partners. These symptoms did not generally occur separately but were combined within different syndromes, indicating various psychoneuroses.

The program was not offered in the following cases: (1) low intelligence (IQ below 90); (2) poor motivation; (3) psychotic or prepsychotic disorders, or (4) organic brain disorders. Depending on the type of disorder, the program was altered or complemented. Thus patients who complained of a disorder involving reality awareness were never offered the reflection technique for the induction of lucid dreams because the disorder could have been worsened with this technique. Follow-up therapy depended on the first lucid dreams, which were diagnostically significant for the patient as well as the therapist. In this context, it is important that the therapist conduct an interview with the participants upon their awakening. Reis (in preparation) has developed a special interview technique that allows both the therapist and the patient to attain more important information about dream content and above all about its dynamic course than is possible by means of self-reports. It remains the task of the therapist to eliminate the patient's resistance to regaining consciousness. The interview is also meant to enable the patient to later interpret his or her dreams alone. Lack of space prevents us from describing this important technique in any detail here.

Results and Conclusions

We chose only a few characteristic cases, which illustrate the therapeutic application of the lucid dream. The program proved to be very effective in eliminating unpleasant dreams. In most cases, patients also felt a liberating effect on their waking lives.

Case 1: A 28-year-old female student complained of recurrent nightmares. She was in a difficult personal situation at that time as she had disturbed relationships with her husband and her fatally ill father; she showed signs of anxiety and depression in her waking life.

A few days after the lucid dream technique was explained to her, she had the following dream:

She found herself in the house she had lived in as a child and was expecting a group of people, who intended to do something harmful to her. She remembered that this situation often occurred in her dreams, so she became lucid. Despite the fact that she was struck with fear and wanted to flee, she overcame this fear and courageously stood her ground. People in long robes approached. She looked at the first figure, a gigantic man with a cold, blue face and glowing eyes, and asked him, "What are you doing here? What do you want from me?" The man looked at her sadly, his expression became helpless as he said, "Why? You called us. You need us for your anxiety." Then the man shrank to normal size. His face became normal and his eyes stopped glowing.

Since this first lucid dream, for the last 5 years, the student has not had any more nightmares. She has also felt less anxiety in her waking life.

This student could not interpret her dream. In other case histories, as well, lucid dreams occurred in which the confrontation with hostile dream figures led to the abolishing of fear in the waking state, without the patients understanding their dream activity. The following possibilities may explain this behavior:

1. Because of the dynamic interaction between symbolic activity and symbolized psychological facts, the activity of the dream ego can exercise an immediate influence on the personality structure without a rational mediative process. In this way, the reconciliation with a hostile dream figure can result in the solution of an unconscious conflict, without having to make this conflict conscious. This is important, because due to a lack of intelligence and/or an inner resistance, it is often impossible to make some patients aware of certain conflicts.

2. The unpleasant symptoms may have been caused by traumatic or conflicting situations that no longer exist. They can be disposed of in a lucid dream in the same way as systematic desensitization in behavior therapy. This is an effective technique in abolishing phobic symptoms.

3. Finally, it seems that the courageous confrontation with unpleasantness in the dream can cause a positive transfer into similar situations while awake.

For this student, the first two hypotheses are plausible. According to her, the insight that she had beckoned her own fears was very important. Subsequently, she tolerated turns of fate courageously. Her lucid dreams as well as her usual dreams continued to help her. For instance, after the death of her father, he appeared to her in a dream. He was, however, not angry, as he had been toward the end of his long illness, but a friendly ally, as he had been in her childhood. The student was holding a candle in her hand. Both she and her father knew that when the candle went out, her father would go away forever. In spite of the fact that she knew her father would leave her and she would mourn, the dreamer accepted her father's going with calmness. She had rediscovered her healthy and friendly father during the dream and in her waking life as well.

It seems important to me that one can take leave of a dream figure, with whom one has become reconciled and from whom it is necessary to part, if one feels strong enough to cope with one's own problems. In this, one should be thankful for the positive things shared with the person in question and integrate these into the personality. After a series of helpful dreams, the student was told in her dream that her name should be changed from "Cordula" to "Laetitia." She learnt from her friends that the Latin word *laetitia* meant

joy or happiness, whereas the word *cordula* (or sweetheart) had a childlike, timid quality. This new name, which she has since used with her friends, reflects the joy of living won in her dream. In the meantime, she has become a therapist herself and successfully uses dreams and especially lucid dreams.

Case 2: A 32-year-old manager sought help from a therapist because he suffered feelings of anxiety and various phobic symptoms. He felt that he was handicapped in his career by shyness and lacked perseverance. After approximately one week, he had his first lucid dream:

He was hiding in a pine wood, and saw people walking in the woods. He was overcome by the desire to throw pinecones at one of them from his hiding place. To his childish delight, he noticed that the pinecones exploded like hand gernades and that they killed or injured the people. He thought this was great fun. On awakening, he was shocked at discovering that he had an aggressive tendency, as he had always considered himself to be free of aggression. This dream showed clearly that aggressive behavior can have a cathartic effect over a short period of time, without however being therapeutic in the long run.

The next lucid dream the patient had was more helpful. He saw a burglar in his house, who had a vicious dog with him. Despite his great fear, he forced himself to approach the man and asked him his name. The burglar called a name (which the patient could no longer remember). Then he said that he stood by what he did. He explained to the dreamer that it is much worse not to accept the truth about oneself. The patient realized during the dream that the burglar symbolized his own aggressiveness that he had not admitted.

In another lucid dream, the patient recognized the reasons for his inhibitions with regard to his aggression. He saw his father behaving aggressively in different ways in a dream. After awakening, the patient realized that his father (also a manager), who claimed to be a peaceful person, was covertly very aggressive. Furthermore, he remembered that his father had strictly suppressed the patient's own aggressiveness in his childhood. It is of interest that the patient arrived at these conclusions without the help of the therapist and that he later trusted his own dreams more than the therapist's guidance. The latter was nevertheless able to help the patient deal therapeutically with these conclusions.

Apparently, the integrity of the patient's personality was damaged in two ways. The overstrict upbringing by his father induced a moral demand that represented a foreign body in the patient's own personality. At the same time, a basic personality need was isolated. The aggressiveness was then directed toward the patient himself, expressed in his fears and phobic symptoms. The patient made a step forward in the therapy, by distancing himself from his father as a model and admitting his own aggressiveness. The latter still had to be integrated into the personality. It should be noted that, according to the field theory, the so-called aggressive drive is originally a neutral need for activity, which, depending on the upbringing, can develop into a constructive drive for intellectual or active confrontation in the outside world, or a destructive drive, which can be directed against others or oneself (for experimental findings, see Metzger, 1962). Self-destructive tendencies develop when the natural drive for action is suppressed by an authoritarian upbringing, as in the patient's case.

The therapist's duty was not to change the self-destructive tendencies within the patient to aggressive tendencies toward others but to change them into a spirit of enterprise

and perseverance in his business life. As the patient was judicious, he succeeded in doing this after a relatively short period of time. The unpleasant symptoms disappeared.

The lucid dream technique was no longer necessary in the patient's learning how to persevere, although it would have been apt as can be seen in the following case.

Case 3: A 16-year-old schoolgirl had been so suppressed in her childhood by her mother's lover that she had retreated into her shell. This behavior of hers led to another suppression on the part of her classmates, so that suicidal thoughts developed. After clinical treatment, she was relieved of her depressions. However, she continued to suffer dreams of fear in which she was oppressed as was the case in her waking life. By learning lucid dreaming, she was able to confront her suppression in dreams. She no longer remained silent when exposed to her classmates' attacks but argued well on her own behalf. She did this as well while awake. People who had known her as a submissive and passive girl were completely surprised by this alteration in her behavior. After changing classes, she had a positive, open relationship with her classmates and felt at ease. Her anxiety dreams disappeared completely. This example shows that through open dialogue in the lucid dream, not only can fears within the dream be abolished but that this dialogue (also as testing action) can lead to a meaningful change in waking behavior. It must be noted, however, that the schoolgirl was already aware of the reason for her problem.

Along with the suppression of aggression, suppression of the sexual drive can also lead to neurotic disorders. This can express itself in the persecution dreams of young women. The following case is a particularly instructive example:

Case 4: A 22-year-old female teacher, who was unable to deal with her pupils because of her shyness, suffered from persecution dreams. She had the following dream:

She found herself in a wood, where she suddenly discovered a large mushroom. When this was transformed into a snake, she became lucid. Although the snake crawled toward her, she remained standing. The snake acquired wings and was transformed into a large bird, which flew into the branches of a nearby tree. When she tried to look at this more closely, it changed into a handsome prince. It became painfully clear to her that because of the prince's rank and his position in the tree, he was unobtainable. At that moment, the prince was transformed into a dolphin, which jumped from the tree into a pond. The dreamer jumped in after him and played with him.

This dream clearly reflects her immature relationship to the opposite sex. In being threatened by the snake—mushrooms and snakes are often phallic symbols—her fear of sexuality was expressed. There was certainly a series of progressive transformations in the dream. But these transformations exceeded her goal, in that they did not lead to an attainable partner but to a prince. In this, the teacher's unrealistic infatuation is expressed. She comes, however, to the important conclusion, within the dream, that this infatuation is not enough and that she needs contact with a partner. The fact that this partner is a dolphin in the dream indicates that she is not yet mature enough for a real partnership with another person.

With regard to therapy, it is important that from the field-theoretical perspective, sexuality, like aggressiveness is not a chaotic drive, as Freud considered it to be, but that it can be made so by incorrect upbringing. If the sexual need is integrated into the personality by being satisfied in a love relationship, it contributes to the self-realization of

a person (cf. Maslow, 1981). This young teacher had complained of no other symptoms apart from her shyness. She quickly gained insight about herself and is now happily married.

In working with further dreams, she lost all her shyness and became very self-assured. The following dream shows that additional energy was set free through the solution of her problems. She found herself in a place of power. There was a stone lying on the ground that seemed to exude enormous energy. When she decided to pick it up, in order to take it with her, a voice sounded from heaven, "You can't take the stone into the waking state, but you will keep the force that comes from it." According to the formerly shy teacher, this dream gave her enormous strength.

One can obtain help in an apparently hopeless crisis situation by using lucid dreams, where no unconscious dynamics are involved, as the following case will illustrate.

Case 5: A 38-year-old academic suffered from severe depression as a result of various external circumstances. Before going to sleep, he thought about the possibility of committing suicide. The following night he had a lucid dream, in which he met a man who grinned at him diabolically and asked, "Well, do you know the way to the Reaper [Death] now?" This dream disturbed the man to such an extent that he fell asleep the following day with the desire to obtain help in a further lucid dream. He had the following dream:

He was skiing and flew so high after a jump that he became lucid. He then unbuckled his skis to go to a hooded man, who was standing in front of a cave. As he came nearer, he noticed that a skull was looking at him. In his shock, he stabbed at Death with his ski stick, but he only stabbed between bones. He then realized that aggressive behavior in a lucid dream was pointless, and addressed the man, "Who are you?" The latter answered, "The plundering wolf!" Whereupon the dreamer asked, "Can you help me?" Death invited him to go into the cave with him. At the far end of the cave, they came to a vault, in which there was a tombstone. Death indicated a painted skeleton on the tombstone and said, "Look, this stands behind every man. But you are not dead, you are alive." He made it clear to the dreamer, in an impressive way, how unimportant his problems were in the face of death.

This was a key experience for the dreamer, which helped him to overcome later crises. In this dream, death may have represented the personification of his tendency toward self-preservation, which was still present. Moreover, this dream shows a surprising parallel (unknown to the dreamer) to a passage in Castaneda's book (1972), in which Death is considered to be the "wisest advisor."

With addiction disorders, the lucid dream technique can only be used as a supporting method. In this way, lucid dreams can impressively make alcoholics, who normally do not accept their illness, aware of the seriousness of the situation. It is characteristic of alcoholics to have dreams in which they are approached by figures who are drunk. The following case is typical.

Case 6: A 41-year-old male teacher who consumed alcohol and drugs had the following dream shortly after Elvis Presley's death:

While being in a lucid state, he met Elvis, who seemed to be completely high and drunk, on a street. He asked Elvis, "Who are you?" Thereupon, Elvis answered, "I

belong to you, and you will soon be with me." Then Elvis invitingly offered the dreamer a bottle of whisky. When the disgusted dreamer refused the offer, Elvis was transformed into a monster, which approached the dreamer threateningly. The dreamer defended himself by stabbing at the monster with a knife. However, this had no effect. Laughing cynically, the monster said, "No one can conquer me! I will destroy anyone who comes near me!" Thereupon, the dreamer fled to the protection of his friends, where the monster could do him no harm.

The dream example is characteristic because the dreamer's addiction appears in personified form, tries to lead him astray, and finally threatens him. This lucid dream shocked the teacher about his illness so much that he shortly thereafter decided to enroll in a clinic. Lucid dreaming also helped him later in setting new goals, which were very important in freeing him from alcohol.

Within LSD therapy, some drastic cases of healing effects on alcoholism are also reported. The LSD experience can lead to negative "horror trips" as well as to positive peak experiences. In the latter case, the experience of being one with mankind and the universe is reported. This "cosmic experience" that can also occur during dreaming lucidly (cf. Gillespie, 1986; Tholey, in preparation) may lead to relief from addiction and to a deep personality change. This leads to discarding the ego-centered attitude, which, according to the field theory, is the greatest obstacle to the development of a harmonious and creative personality. Lucid dreamers occasionally mention such cosmic experiences.

We have little experience with the effect of lucid dream therapy on drug addicts. I am, however, aware that drug addicts have attended my seminars, in order to learn lucid dreaming as a precaution against further drug experiences. People experienced in drug taking report that taking imagined drugs in a lucid dream may not only induce a "high experience" but also intensify it compared to real drugs (Roos, 1984).

SUPPLEMENTS

The few case histories chosen for illustration already testify to the variety of therapeutic possibilities of the application of lucid dreaming. We believe that these possibilities are nowhere near being exhausted. Lucid dreaming is a new territory for scientific research, which still requires theoretical and experimental work. We are presently investigating a technique that involves the ego consciousness leaving the body of the dream ego and entering into the body of another dream figure. To illustrate this technique, which we might call "entering into another dream figure," we are including an example from a teenager. The girl was in love with a young man whose behavior was friendly and pleasant to her and yet reserved. Before going to sleep one night the girl spent some time wondering why the young man was so reserved toward her. That night she had the following dream:

> I was in the same room as the boy and we were both doing something or other; I can't remember now what it was. I do remember that we were talking, though. All at once I knew that I was dreaming. I asked myself again why he didn't return my feelings and wanted to get an answer to this question in the dream. It was then that I became aware

> of my spirit, that is, that part of me I think of as my "self," detaching itself from my body and floating across to his body and then entering his body. In this bodiless state I was able to use all my senses to orientate myself, that is, seeing, hearing, feeling, etc. After I had left my body, I still saw it standing there, doing some sort of fiddly work and talking. In other words, you could not tell by looking at my body from the outside that I was no longer inside it. So I floated across to the boy and slipped into his body. As I did so, I had the feeling that I had taken over all his bodily functions without him being aware of it. And so I took over his vital bodily functions and his motoricity, in other words, everything the body needs to operate. To begin with, it felt really strange, everything was so different and so much more restricted than in my body, and so unfamiliar. It was the kind of feeling you have when you have driven a Mercedes for years, know the car inside out, and then suddenly change it for an Austin Mini.
>
> As time went one, however, and I got used to being in his body and could handle it better, this feeling gradually grew weaker. I saw with his eyes, felt with his hands, and talked with his voice, and so on. And, with his eyes, I saw my body standing there engaged in some sort of activity. I also saw his spirit, his consciousness. I saw him thinking, without being able to remember how this had come about. So I observed his thoughts and actions but did not try to interfere with them because, as I have said, the boy did not know that I was in his body with him. I saw how he perceived me, the effect I had on him, and the feelings he had for me. I saw the conflict he was in—after all, he had, I suppose become aware of my feelings for him, and he was very fond of me, but he did not want to go out with me as such. When I had watched his thoughts and seen myself through his eyes, I understood why he had been so reserved with me, and I realized that he would never return my feelings. I knew exactly what he was thinking and why. At this point, I woke up out of the dream.

This dream was very important and helpful for the girl because it sorted out her feelings. She was satisfied with being the young man's friend and, in settling for his friendship, felt a certain relief because the tension that had existed between them previously vanished completely following the dream.

Our current findings suggest that the technique described in the preceding example is more effective than the previously mentioned technique involving interaction with other dream figures, but it generally requires more practice. Moreover, it is also possible to slip into different dream figures, one after the other, during lucid dreaming, *and* to conduct a dialogue with a dream figure that one has left with the ego consciousness (for example, see Tholey & Utecht, 1987; Tholey, in preparation).

Further research into lucid dreaming should investigate whether the lucid dreamer can communicate with the therapist while being in the lucid dream state. Not as a telepathic contact but rather a communication by means of apparatus. We use equipment that transmits subliminal tactile stimuli as signals dependent on certain eye movements of the dreamer (cf. Reis, 1983). This is possible before becoming lucid as well as after having gained lucidity. This means that the lucid dreamer could consciously cause feedback signals by eye movements and recognize them, although they were integrated into the dream events. Our investigations on the ability of rendering the dream figures conscious indicate that it seems possible that an outside observer who is following the signals can

communicate not only with the dream ego but also with other dream figures (cf. Tholey, 1985).

Even more important than abolishing difficult personality disorders using lucid dreaming is the possibility that lucid dreaming can be used as a method allowing us to deal with psychological problems in their early stages. If one includes the other possibilities of lucid dreaming, it seems desirable to contribute to a general propagation of lucid dreaming. Considering that a human being spends about 4 years of his or her life dreaming, it is irresponsible not to do something about the quality of our dream life. This will become as stunted as waking experience if it is not practiced. It is time to put our energy into insisting that dreams and lucid dreams be attended to in families and schools. In my experience, children are interested in dreams and achieve lucidity more easily than adults.

REFERENCES

Aserinsky, E., & Kleitman, N. (1953). Regularly occuring periods of eye motility and concomitant phenomena during sleep. *Science, 118,* 273–274.

Castaneda, C. (1972). *Journey to Ixtlan: The lessons of Don Juan.* New York: Simon & Schuster.

Freud, S. (1900). *Die Traumdeutung.* Leipzig and Wien: Deuticke.

Gackenbach, J. I. (1978). *A personality and cognitive style analysis of lucid dreaming.* Unpublished doctoral dissertation, Virginia Commonwealth University.

Gackenbach, J. I. (1980). Lucid dreaming project. *A.R.E. Journal, 15,* 253–260.

Gackenbach, J. I. (1986). Speculations on healing with the lucid dream. *Lucidity Letter, 5*(2), 5–8.

Gackenbach, J. I., & LaBerge, S. P. (1984). The lucid dream: A dream whose time has come. *ASD Newsletter, 1*(1), 1–12.

Gillespie, G. (1983). Memory and reason in lucid dreams: A personal observation. *Lucidity Letter, 2*(4), 8–9.

Gillespie, G. (1984). Problems related to experimentation while dreaming lucidly. *Lucidity Letter, 4*(2 & 3), 1–3.

Gillespie, G. (1986). Ordinary dreams, lucid dreams and mystical experiences. *Lucidity Letter, 5*(1), 27–31.

Green, C. (1968). *Lucid dreams.* London: Hamish Hamilton.

Hays, W. L. (1973). *Statistics for the social sciences.* New York: Holt, Rinehart & Winston.

Henle, M. (1978). Gestalt psychology and Gestalt therapy. *Journal of the History of the Behavioral Sciences, 14,* 23–32.

Kebeck, G. (1983). Feldtheorie als Methodologie. Ueberlegungen zur Nuetzlichkeit Lewinscher Grundgedanken fuer die Allgemeine Psychologie und Methodenlehre. *Gestalt Theory, 5*(4), 247–266.

Kebeck, G., & Sader, M. (1984). Phaenomenologisch-experimentelle Methodenlehre. Ein gestalttheoretisch orientierter Versuch der Explikation und Weiterfuehrung. *Gestalt Theory, 6*(3), 193–245.

Kohl, K. (1956). *Zum Problem der Sensumotorik.* Frankfurt am Main: Kramer.

Kuenkel, F. (1934). *Charakter Leiden und Heilung.* Leipzig: Hirzel.

Kuenkel, F. (1982). *Einfuehrung in die Charakterkunde.* Stuttgart: Hirzel.

LaBerge, S. P. (1981). Lucid dreaming: Directing the action as it happens. *Psychology Today, 15* 48–57.

Leuner, H. C. (1962). *Die experimentelle Psychose.* Berlin, Goettingen, and Heidelberg: Springer.

Leuner, H. C. (1978). Principles and therapeutic efficacy of Guided Affective Imagery (GAI). In J. L. Singer & K. S. Pope (Eds.), *The power of imagination: New Methods in psychotherapy* (pp. 125–166). New York, London: Plenum Press.

Lewin, K. (1940). Formalisation and progress in psychology. In University of Iowa studies. *Studies in child welfare, 16,* No. 3: *Studies in topological and vector psychology I,* 7–42.

Malumud, J. R. (1978). *The development of a training method for the cultivation of "lucid" awareness in fantasy, dreams, and waking life.* Unpublished doctoral dissertation, New York University.

Maslow, A. H. (1981). *Motivation and Persoenlichkeit.* Reinbeck bei Hamburg: Rowohlt.

Metzger, W. (1962). *Schoepferische Freiheit.* Frankfurt am Main: Kramer.

Metzger, W. (1976). *Psychologie fuer Erzieher I: Psychologie in der Erziehung.* Bochum: Kamp.

Pearson, K. (1968). *Tables of the incomplete Beta-function.* Cambridge: Cambridge University Press.

Perls, F. S. (1969). *Gestalt therapy verbatim.* Lafayette: Real People Press.

Reis, J. (1983). *Biofeedback—Induktion des Klartraums.* Unpublished doctoral dissertation, Johann Wolfgang Goethe-Universitaet, Frankfurt am Main.

Reis, J. (in preparation). Verlaufsaspekte von Klartraeumen. Entwicklung einer inhaltsanalytischen Methode zur Erfassung affektiv-szonischer Verlaufsphaenomen. Doctoral dissertation, Johann Wolfgang Goethe-Universitaet, Frankfurt am Main.

Roos, M. (1984). *Vergleichsstudie zwischen Klartaumerfahrungen und Erlebnisse unter dem Einfluss psychodelischen Drogen* Unpublished doctoral dissertation, Johann Wolfgang Goethe-Universitaet, Frankfurt am Main.

Sally, R. D. (1985). Dream work in a case of multiple personality. *ASD Newsletter, 2*(4), 1–4.

Stephan, C. (1983). Die Wirklichkeit der Seelenreisen. *Esotera, 34*(6), 511–518.

Stephan, C. (1984). Vom Nutzen der Traeume. In K. Schnelting (Ed.), *Hilfe, ich traeume* (pp. 178–190). Muenchen: Goldmann.

Tart, C. T. (1969). *Altered states of consciousness.* New York, London, Sydney, and Toronto: Wiley.

Tart, C. T. (1984). Terminology in lucid dream research. *Lucidity Letter, 3*(1), 4–6.

Tholey, P. (1973). *Die Ueberpruefung psychophysiologischer Traumtheorien mit Hilfe der Klartraumtechnik* (unpublished lecture, Johann Wolfgang Goethe-Universitaet, Frankfurt am Main).

Tholey, P. (1977). Der Klartraum: Seine Funktion in der experimentellen Traumforschung. In W. H. Tack (Ed.), *Bericht ueber den 30; Kongress der deutschen Gesellschaft fuer Psychologie in Regensburg 1976* (pp. 376–378). Goettingen: Hogrefe.

Tholey, P. (1980a). Erkenntnistheorie und systemtheoretische Grundlagen der Sensumotorik. *Sportwissenschaft, 10,* 7–35.

Tholey, P. (1980b). Klartraeume als Gegenstand empirischer Untersuchungen. *Gestalt Theory, 2,* 175–191.

Tholey, P. (1980c). Verwerfungsregeln fuer statistische Hypothesen. *Arbeiten aus dem Institut fuer Psychologie der Universitaet Frankfurt am Main, 15.*

Tholey, P. (1980d). *Gestaltpsychologie.* In R. Asanger & G. Wenninger (Eds.), *Handwoerterbuch der Psychologie* (pp. 178–184).

Tholey, P. (1981). Empirische Untersuchungen ueber Klartraeume. *Gestalt Theory, 3,* 21–61.

Tholey, P. (1982a). Signifikanztest und Bayessche Hypothesen-pruefung. *Archiv fuer Psychologie, 134,* 319–342.

Tholey, P. (1982b). Bewusstseinsaenderung im Schlaf: Wach' ich oder traeum' ich? *Psychologie heute, 9*(12), 68–78. Reprinted in Psychologie heute Redaktion (Ed.), *Grenzerfahrungen,* (pp. 95–102). Weinheim: Beltz.

Tholey, P. (1983a). Relation between dream content and eye movements tested by lucid dreams. *Perceptual and Motor Skills, 56,* 875–878.

Tholey, P. (1983b). Techniques for inducing and manipulating lucid dreams. *Perceptual and Motor Skills, 57.* 79–90.

Tholey, P. (1984a). Der Klartraum—Hohe Schule des Traums. In K. Schnelting (Ed.), *Hilfe ich traeume* (pp. 100–118). Muenchen: Goldmann.

Tholey, P. (1984b). Gestalt therapy made-in-USA and made-elsewhere. *Gestalt Theory, 6,* 171–174.

Tholey, P. (1984c). Sensumotorisches Lernen als Organisation des psychischen Gesamtfelds. In E. Hahn & H. Rieder (Eds.), *Sensumotorisches Lernen und Sportspielforschung: Festschrift fuer Kurt Kohl,* (pp. 11–26). Koeln: bps-Verlag.

Tholey, P. (1984d). Zur Gleichgewichtsproblematik im Sport. *Spprtpaedagogik, 8*(5), 13–16.

Tholey, P. (1985). Haben Traumgestalten ein Bewusstsein? Eine experimentell-phaenomenologische Klartraumstudie. *Gestalt Theory, 7,* 29–46.

Tholey, P. (1986a). Deshalb Phaenomenologie! Anmerkungen zur experimentell-phaenomenologischen Methode. *Gestalt Theory, 8* 144–163.

Tholey, P. (1986b). Letter to the editor. *Lucidity Letter 5*(2), 45–48.

Tholey, P., & Utecht, K. (1987). *Schoepferisch Trauemen. Der Klartraum als Lebenshilfe.* Niedernhausen: Falken Verlag.

Tholey, P. (in preparation). Die Entfaltung des Bewusstseins als Weg zur schoepferischen Freiheit. Vom Traeumer zum Krieger. In T. Metzinger & E. Waelti (Eds.), *Chrysalis. Ausserkoerperliche Erfahrungen.*

van Eeden, F. (1913). A study of dreams. *Proceedings of the Society for Psychical Reserach, 26,* 431–461.

Wertheimer, M. (1959). *Productive thinking.* New York: Harper.