

PETER BRADLEY

DEFINING THE MIND

The Struggle for Legitimacy in Psychiatry and Psychology in the
1970s

I Game Book

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1 *Introducing The Game*

This game highlights the intellectual conflicts that changed American psychiatry and psychology in the early part of the 1970s.

It might seem a little odd, in a Reacting game, to be exploring relatively recent events. While there will be no executions, ostracisms or civil wars in this game, the intellectual stakes are no less high. What you know of Psychiatry and Psychology today—the social significance of the American Psychiatric Association's *Diagnostic and Statistical Manual* (DSM), the use of psychopharmaceuticals for 'everyday' life (such as Ritalin, Adderall and anti-depressants), and the theoretically pluralistic basis of Psychology departments (behaviorism, cognitivism)—originate in this time period, in this conflict.

During the course of this game, your class will be the 'APA.' Your class will be responsible for determining what conditions shall be labeled 'mental illness', and what evidence shall be required for distinguishing different conditions. Actual game play will consist of organizing annual conferences, where the nation's psychiatrists and psychologists meet to share their research and conduct association business. In real time, a single conference takes 1 week. Each weekend of real time then, represents an entire year in game play time. According to your specific role, you may be presenting papers, participating in a symposium, serving on a committee, or even running for one.

Players will join 'committees' with different responsibilities, such as scheduling each conference and determining who will present papers on what subjects. The schedule for the first annual conference is already set: you can review it on p. 5.1 on page 32 . Pay careful attention to the schedule of submission and review detailed by the conference committee. If your role sheet requires that you present your research at the conference, you must get your proposal to the conference committee on time. There is a detailed description of the form required for proposals provided under '?? on page ??.'

1.1 Playing a Psychologist or Psychiatrist in the 1970s.

In 1974, the vast majority of psychiatrists would have been trained in the psychoanalytic tradition of Freud and Jung. In psychology, the vast majority would have been trained as behaviorists.

Each camp believed that they alone had a monopoly of the scientific study of the mind, and the other traded in pseudoscience. During the 1970s, crystallizing around the demedicalization of homosexuality, this all began to change.

In this game, we ask you to put aside what you know about modern psychology and psychiatry, and put yourself in the shoes of a died-in-the-wool psychoanalyst or hard-nosed behaviorist¹. We'll get to what that means later in the game book, but if you just can't wait, check out the introduction to psychoanalysis and behaviorism in section 4.2.

Context: the role of Psychology and Psychiatry in American Political Life

In 1964, a magazine called Fact asked 12,000 psychiatrists if they would be willing to diagnose conservative presidential candidate Barry Goldwater. Of the more than 2000 that responded 1,189 responded that he appeared to have a 'personality disorder'—that slippery category between psychosis and neurosis. The headline proclaimed (under the magazine's title 'fact:') that "1,189 Psychiatrists Say Goldwater Is Psychologically Unfit To Be President! You may recall that the 1964 election witnessed Johnson's famous 'Daisy' ad, which suggested that the election of Barry Goldwater would lead to nuclear annihilation.²

At this same time, you may recall that the US Supreme court decided in 1973 that abortion was covered by the constitutional dictate to a right to privacy, thereby blocking all laws that had kept abortion illegal.

In 1969, the American Psychological Association issued a public proclamation, citing lack of evidence to the contrary that:

WHEREAS in many state legislature, bills have recently been introduced for the purpose of repealing or drastically modifying the existing criminal codes with respect to the termination of unwanted pregnancies;

and **WHEREAS**, termination of unwanted pregnancies is clearly a mental health and child welfare issue, and a legitimate concern of APA;

BE IT RESOLVED that termination of pregnancy be considered a civil right of the pregnant woman, to be handled as other medical and surgical procedures in consultation with her physician, and to be considered legal if performed by a licensed physician in a licensed medical facility.³

¹ Unlike many other professional organizations of the late 19th century, the APA immediately granted membership to women: specifically the eminent experimental psychophysicist Christine Ladd-Franklin and Margaret Washburn in 1894, two years after its founding. Mary Whiton Calkins was the first woman elected the first president in 1905. At the same time, the famous psychologist Edward Titchener created a separate organization called the "Experimentalists" in 1904, from which he explicitly barred women. Christine Ladd-Franklin engaged in high profile war of words with Titchener until his death in 1925. Unfortunately, many people misremember this conflict as happening in the APA, which is incorrect. Also unfortunately, Titchener's student E.G. Boring wrote the most famous history of experimental psychology, in which he attacks Christine Ladd-Franklin as 'invading' laboratories and 'the women graduate students manicure her fingers' in the laboratory. (see 'Women scientists in American: struggles and strategies to 1940', p. 390)

² For a brief history see Pinsker, H. (2007). "Goldwater Rule" History", Psychiatric News, 42 (15), p. 33 (<http://pn.psychiatryonline.org/content/42/15/33.1.full>)

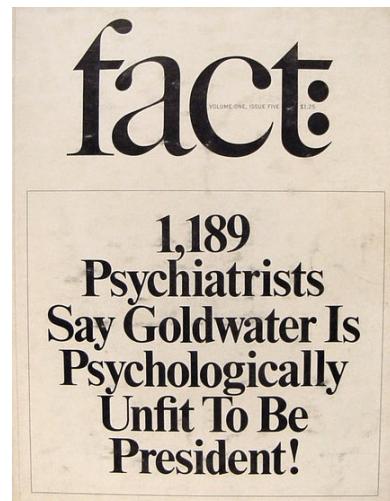


Figure 1.1: Cover of Fact magazine, 1964. From Wikimedia commons.

³ Available at <http://www.apa.org/about/policy/archive.aspx>

The American Psychiatric Association followed in 1967 with:

The emotional consequences of unwanted pregnancy on parents and their offspring may lead to long-standing life distress and disability, and the children of unwanted pregnancies are at high risk for abuse, neglect, mental illness, and deprivation of the quality of life. Pregnancy that results from undue coercion, rape, or incest creates even greater potential distress or disability in the child and the parents. The adolescent most vulnerable to early pregnancy is the product of adverse sociocultural conditions involving poverty, discrimination, and family disorganization, and statistics indicate that the resulting pregnancy is laden with medical complications which threaten the well-being of mother and fetus. The delivery that ensues from teenage pregnancy is prone to prematurity and major threats to the health of mother and child, and the resulting newborns have a higher percentage of birth defects, developmental difficulties, and a poorer life and health expectancy than the average for our society. Such children are often not released for adoption and thus get caught in the web of foster care and welfare systems, possibly entering lifetimes of dependency and costly social interventions. The tendency of this pattern to pass from generation to generation is very marked and thus serves to perpetuate a cycle of social and educational failure, mental and physical illness, and serious delinquency.

Because of these considerations, and in the interest of public welfare, the American Psychiatric Association

- 1) opposes all constitutional amendments, legislation, and regulations curtailing family planning and abortion services to any segment of the population;
- 2) reaffirms its position that abortion is a medical procedure in which physicians should respect the patient's right to freedom of choice - psychiatrists may be called on as consultants to the patient or physician in those cases in which the patient or physician requests such consultation to expand mutual appreciation of motivation and consequences; and
- 3) affirms that the freedom to act to interrupt pregnancy must be considered a mental health imperative with major social and mental health implications.⁴ "Position Statement on Abortion" 1967

Needless to say, not only were these political events hugely controversial in the United States, the professional involvement of psychiatrists and psychologists was *itself* hugely controversial.

The 'Goldwater affair', as it became to be known, embarrassed Psychiatry as a whole, painting the entire discipline as either politically motivated and unreliable.⁵

And the declarations regarding abortion were widely seen as unmotivated by scientific evidence.

To this day, academic organizations have a reputation of bias toward liberal political parties. Given that contemporary conservatism traces its root to Goldwater's failed presidential bid, it is unsurprising that conservative groups may still harbor some suspicion of academia.

⁴ Available at <http://www.psych.org/Departments/EDU/Library/APAOOfficialDocumentsandRelated/PositionStatements/197703.aspx>

⁵ 'Unreliable' should be read here in the technical sense—the same individual would not be classified the same way by a different analysts)

1.2 Prologue

Your cab pulls up in front of the Shoreham hotel in Rock Creek Park, a particularly tranquil part of the chaos that is Washington D.C. You nervously check the entrance to the hotel. It's clear. This year, there are no throngs of protesters bent on face-to-face confrontation.

They must be down at the mall participating in the massive protest calling for an end to the Vietnam war. The radio reported an estimated crowd of at least 50,000. And that's before the 10,000 National Guardsmen were called into try to open the flow of traffic.

The story was not the same last year, in San Francisco.

When you arrived at the hotel last year, the entrance was completely blocked by an angry crowd of gay rights activists. Individuals in the crowd were personally confronting—non-violently but aggressively—any member of the APA who appeared. The activists called this 'Zapping.' You found it terrifying.

Last year's conference was almost shut down by the protesters. There are rumors that the FBI was in attendance last year, and it is almost certain they are here now. The Washington Post covered the event thusly:

The Washington Post May 14th 1970 – The gay liberation and their women allies out-shrieked the head shrinkers today and took over an American Psychiatric Association session on sex. Before the morning was over the 500 psychiatrists who gathered to hear scientific studies on sexual problems demonstrated that they were just as prone to anti-social behaviour as anyone else. 'This lack of discipline is disgusting', said Dr Leo Alexander, a psychiatrist at the meeting. Then he diagnosed the problem of one of the lesbian protesters: 'She's a paranoid fool,' the doctor said, 'and a stupid bitch.'⁶

⁶ This is excerpted from a real article in the Washington Post.

The conference was a circus. Young men dressed in flamboyant gowns stormed through the hallways. Sessions were disrupted by guerrilla theater. In one, an activist named Frank Kameny grabbed the microphone and shouted "Psychiatry is the enemy incarnate. Psychiatry has waged a relentless war of extermination against us. You may take this as a declaration of war against you."

It all culminated in a session featuring Irving Bieber, author of the 1962 study on homosexuality published in his book *Homosexuality*.

According to eye witnesses, a protester interrupted Bieber almost before he started with the claim that "I've read your book Dr. Bieber, and if that book talked about black people the way it talks about homosexuals, you'd be drawn and quartered, and you'd deserve it!"

Clendinen and Nagourney 2013, p. 200–201

Bieber tried to respond by claiming "I never said homosexuals were sick—what I said was that they had displaced sexual adjustment."

"That's the same thing, motherfucker!" yelled another.

Earlier this year, a meeting of the New York branch of the APA, a handful of gay activists interrupted a talk by noted Psychiatrist from Columbia University Charles Socarides.

There have long been rumors of a shadow organization of homosexual psychiatrists called the 'Gay-PA.' It appears these rumors are no longer in doubt. The highlight of this year's program promises to be a symposium titled "Psychiatry: Friend or Foe to Homosexuals: A Dialogue." The panel includes Dr. Evelyn Hooker, one of the participants in last year's show down and the mysterious 'Dr. H. Anonymous,' who claims to be both a licensed psychiatrist and homosexual.

Everyone knows that a mentally ill person cannot practice psychiatry. And homosexuality is a mental illness. This Dr. H. Anonymous, if he or she is telling the truth, is risking his or her medical license. But yet there must be more. We all know, ever since Kinsey's famous study, that about 10% of the population identifies as primarily homosexual, while a significantly larger percentage have engaged in homosexual activity. And ever since Hooker's paper in 1956, we know that most of this population are psychologically normal. Given the numbers attending this meeting, Dr. H. Anonymous surely can't be alone.

On the other hand, Socarides and Bieber have called Hooker and Kinsey's data into question. If they are correct, and only a small percentage of the population is homosexual, on what basis could one call it a 'normal' behavior? Are homosexuals, as Bieber contends, individuals whose "heterosexual function is crippled, like the legs of a polio victim"?

Back in October of 1969, Time magazine had a cover story on the movement amongst homosexuals—who they called 'inverts'⁷—for greater social recognition. In the second paragraph, it referred to "gay" bars (with the quotations), but then proceeded to use the word "gay" without quotes. It even used the term 'gay marriage.' The article, however, made the following claim:

Most experts agree that a child will not become a homosexual unless he undergoes many emotionally disturbing experiences during the course of several years. A boy who likes dolls or engages in occasional homosexual experiments is not necessarily "queer": such activities are often a normal part of growing up. On the other hand, a child who becomes preoccupied with such interests or is constantly ill at ease with the opposite sex obviously needs some form of psychiatric counseling. While only about one-third of confirmed adult inverters can be helped to change, therapists agree that a much larger number of "prehomosexual" children can be treated successfully

Who are these 'experts' anyway? Is Psychiatry headed to another embarrassment like the Goldwater affair?⁸

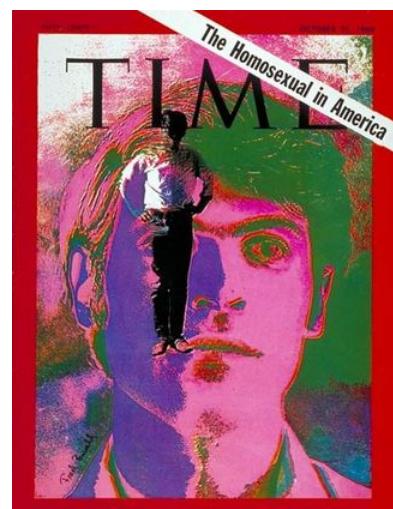


Figure 1.2: Cover of Time Magazine, Oct 31st, 1969

⁷ You can read the entire article here: <http://www.time.com/time/printout/0,8816,839116,00.html#>

These thoughts raise a larger specter in your mind: are psychiatry and psychology *scientific*?

Starting a decade ago, Thomas Szasz, Professor of Psychiatry at State University of New York Health Science Center in Syracuse, New York has been arguing, quite publicly, that ‘mental illness’ is a myth! His ideas challenge the very foundation of your field. He’s listed on the program, and you’re quite excited to get a chance to discuss his polemic claims in some detail.

At the same time, George Miller, who is serving as the President of the APA this year, is something of a revolutionary himself. Miller has been arguing for the existence of something called ‘Cognitive Psychology’, which directly challenges the 50-year tradition of limiting psychological research to the observation, prediction and control of human behavior. For half a century, psychologists have been convinced that they cannot scientifically investigate unobservable entities like ‘beliefs’, ‘desires’, ‘personalities’ and ‘minds’, but rather must study only the behavior of an organism in its environment. Now even that is being challenged!

Are psychology and psychiatry scientific? Is there such a thing as a ‘mental illness’? Can (or should) science be used to make the world a better place?

1.3 *Counterfactuals*

In reality there are two distinct associations named ‘APA.’ The American Psychiatric Association, which is composed of Medical Doctors who practice Psychiatry, maintains the DSM. The American Psychological Association, which is composed of academics (PhDs) who study the mind in a variety of ways, does not.

In this game, I have conflated the two, which is significant transgression according to both sides of the divide.

If you are interested in studying these events in closer detail, all our characters correspond to a real person or persons. Those with MDs are members of the American Psychiatric Association, while characters with PhDs are members of the American Psychological Association.

The American Psychology Association produces a list of educational objectives that are necessary for a Undergraduate Major in Psychology. The first goal “Knowledge Base in Psychology” includes “Identify other fields other than psychology that address behavioral concerns.” Of the eight standard *Introduction to Psychology* textbooks I reviewed⁹, three (Myers and DeWall 2015, Hockenbury, Nolan, and Hockenbury 2014 and Zimbardo, Johnson, and McCann 2012) mention ‘Psychiatry’ in this context, ranging from a single sentence

⁹ The instructor’s manual for the game has the full list, if you are interested.

(Myers and DeWall 2015) to a paragraph (Zimbardo, Johnson, and McCann 2012)—albeit to distinguish Psychiatry from Psychology. Three texts (Gazzaniga 2018, Cervone and Caldwell 2015 and Cioppo and Freberg 2018) mention ‘Psychiatry’ in later sections where they compare careers in Psychology, and two (Lilienfeld et al. 2014, Rathus 2012) fail to mention it at all, at least according to the Index.

For the most part, the historical events with which a character interacts occurred under the umbrella of their respective organization.

2 Historical Background

The study of the mind can be traced back to the very foundations of Western civilization in Ancient Greece. For the purposes of this game, we're going to confine ourselves to the era of 'scientific' study of the mind, both in a medical and research context. All historical events up until 1974 that are described in this game book are listed here in a round time line, for ease of reference.

2.1 Timeline of events relevant to game play

Major 'eras' are separated for ease of reference.

Year	Event
1792	Philippe Pinel appointed physician at the Bicêtre hospital in Paris 2.4 on page 53
1794	Pinel appointed chief physician of the Hôpital de la Salpêtrière
1801	Pinel publishes <i>A Treatise on Insanity</i> , with his 4-fold classification of mental illness (translated in English in 1806) ?? on page ??
1805	Esquirol published <i>Mental Maladies</i> , with a 5-fold classification of mental illness 2.4 on page 57
1812	George Boole published <i>The Laws of Thought</i> 2.2 on page 44
1825	Popular wave of 'homocidal monomania', inspiring (among others) Dostoevsky's <i>Crime and Punishment</i>
Empiricism in psychology	
1847	Helmholtz, Ludwig, Bois-Reymond and Brücke vow to develop an account of human and animal behavior that was entirely in physical-chemical terms. 2.2 on page 30
1850	Fechner first posits that the intensity of a psychological experience had a mathematical relation to the intensity of the physical stimulus (Now known as 'Fechner's Law') 2.2 on page 31
1878	William James contracts to write <i>The Principles of Psychology</i> 2.2 on page 34
1879	Wilhelm Wundt's lab at the University of Leipzig opens 2.2 on page 32
1880	Josef Breuer takes 'Anna O' as a patient in Vienna 2.4 on page 65
1881	George Beard publishes <i>American Nervousness</i> , introducing the idea of a 'nervous breakdown' 2.4 on page 61

1881	Breuer attempts hypnosis on Anna O.
1882	Charcot founds the first clinic on "Incurable" mental illness (what we now call "neurological conditions") at the Salpêtrière in Paris. 2.4 on page 63
1883	Christine Ladd-Franklin completes and publishes her dissertation titled "On the Algebra of Logic" under C.S. Peirce. Johns Hopkins refuses to grant her the doctorate because of her gender.
1885	Hermann Ebbinghaus' memory experiments call into question the reliability of introspection-based research in psychology, and establishes the paradigm for experimental psychology. 2.2 on page 36
1885-1887	Charlotte Perkins-Gilman treated for Post-Partum Depression by George Beard's student Silas Wier-Mitchell.
1890	A young Sigmund Freud, blocked from a hospital appointment in Germany by anti-semitism, moves to Paris to work under Charcot.
1891	The 'neuron doctrine' first advanced by Wilhelm Waldeyer in Germany.
1891	Christine Ladd-Franklin leaves Johns Hopkins, where she was denied a PhD because of her gender, to study in Germany with Müller and Helmholtz.
1891-1900	Ivan Pavlov conducts research on dog salivation in response to physical stimulus. We now call his method 'classical conditioning'.
1892	Krafft-Ebing publishes <i>Psychopathia Sexualis</i> see 2.3 on page 47, and Appendix B on page 194
1892	G. Stanley Hall appointed 1st President of the American Psychological Association
1892	Charlotte Perkins Gilman publishes "The Yellow Wallpaper", based on her experiences with psychological treatment
1894	Christine Ladd-Franklin, along with Margaret Washburn, are the first Women to be elected to the American Psychological Association.
1895	Freud and Breuer publish their report of Anna O titled "The Psychic Mechanism of Hysterical Phenomena" 2.4 on page 65

Birth of Psychology as a discipline

1896	William James' <i>The Principles of Psychology</i> published. 2.2 on page 34
1905	Mary Whiton Calkins elected first woman President of the American Psychological Association
1909	G. Stanley Hall invites Freud and Jung to give a series of lectures at Clark University. In the audience are William James, Franz Boas (anthropology), E.B. Tichner (psychology) and Emma Goldman (the anarchist). After the lectures, Freud and Jung accept an invitation from James Jackson Putnam, a prominent neurologist in New York, to vacation at his home in the Adirondacks. During this vacation, Freud and Jung have a disagreement, which causes rift between them that never closed. 2.4 on page 70
1911	Ramon y Cajal demonstrates neurons in the hippocampus, confirming the 'neuron doctrine'
1911	Putnam founds the American Psychiatric Association.
1912	Alan Turing born

1913	Ebbinghaus' work translated into English
1913	John B. Watson publishes "Psychology as the Behaviorist Views it", launching Behaviorism. ?? on page ??
1917	At the inaugural meeting of the American Psychiatric Association, the DSM-I is adopted. There are 21 mental disorders classified.
1933	<i>A Standard Classified Nomenclature of Disease</i> published by the NY Academic of Medicine, along with the Public Health Serve, the Army and Navy Medical Department and the American Hospital Association.
1936	Turing posits the idea of a machine that can compute any mathematical function
1939	B.F Skinner publishes <i>The Behavior of Organisms: An Experimental Analysis</i> , introducing the concept of 'reinforcement' and 'operant conditioning' 2.2 on page 42
1939-1945	WWII: significant migration of German researchers to the US; most of the top researchers in the field recruited to the war effort. Large numbers of young intellectuals trained in basic psychiatry for the military. Individuals discharged from the US Military for homosexuality begin organic communities in the major ports of the West Coast: San Diego, Long Beach (L.A.) and San Francisco.
1943	bulletin "Medical 203", which defined mental illness for the US military was written by Brigadier General William C. Menninger

Scientific study of sexuality, and birth of computing

1948	Kinsey publishes <i>Sexual Behavior in the Human Male</i> 2.3 on page 49
1949	<i>The International Statistical Classification of Diseases</i> . Was published. It had 27 major categories of mental illness and 60 sub-categories G on page 438
1950	Alan Turing publishes "Computing Machinery and Intelligence", articulating the thesis that the mind can be modeled on a machine, as well as a test for the intelligence of such a machine.
1950	The Mattachine Society, in Philadelphia, and the Daughters of Bilitis, in San Francisco, are founded. 2.3 on page 50
1952	Alan Turing arrested as a homosexual. Is sentenced to chemical castration through hormone therapy.
1952	The American Psychiatric Association published the DSM-II, which has 28 major categories of mental illness, and 44 sub categories. I on page 605
June 7th,	Alan Turing commits suicide. 2.3 on page 47
1954	Evelyn Hooker begins her research on the Mental health of male homosexuals in Los Angeles. 2.3 on page 51

September 10-12 1956	MIT hosts the second Symposium on Information Theory. In attendance are John von Neumann (the father of computer science), Norbert Weiner (founder of cybernetics), Claude Shannon (creator of Information theory), Warren McCulloch and Walter Pitts (Creators of a mathematical model of a neuron), Margaret Mead (Anthropology), Herbert Simon and Alan Newell (Computer Science), Noam Chomsky (linguistics) and George Miller (psychology). The cognitive revolution has begun. 2.2 on page 45
1955	The Wallace Lab began marketing <i>Miltown</i> , the first anti-psychotic medicine.
1957	Skinner publishes <i>Verbal Behavior</i> , Chomsky publishes stunning critique. ?? on page ??
1959	<i>Trofranil</i> , the first antidepressant, appears on the market.
1960	<i>Librium</i> , the first anti-anxiety, appears on the market.
1963	<i>Valium</i> is introduced.
First street activism in the gay and lesbian community	
1963	Barbara Gittings becomes editor of the newsletter of the Daughters of Bilitis.
1968	Members of the Mattachine society disrupt public lecture by Charles Socarides
1969	Oliver Sacks administers L-DOPA to patients comatose since the 1920s, and is amazed to find them awaken. His memoir 'Awakenings' is published in 1972, and widely read and discussed in the medical community.
June 28, 1969-July 3rd, 1969	2.3 on page 51
1970	Gay rights protesters picket, and overwhelm, the annual meeting of the APA in San Francisco.
Game Begins	
September 10th, 2009	the United Kingdom issues a formal apology to Alan Turing for his treatment after massive petition drive.
Dec 24th, 2013	Turing granted Royal Pardon by Queen Elizabeth II.

Table 2.1: Timeline of critical events

This events that lead up to the clash over the validity of scientific studies of the human mind span countries and continents. Ideas flow quickly—even in the 18th and 19th centuries, so understanding how the peculiar American definitions of mental health and illness came about require a bit of explanation.

2.2 Brief history of the concept of 'Psychology'

Psychology is probably the youngest of commonly accepted academic disciplines—the first PhD in Psychology was earned by G. Stanley Hall in 1878. But we'll get to that. First, we have to go back to the notion of science itself.

Pre-history of Psychology: Empiricism about the Mind

The scientific investigation into the human mind and/or human behavior begins almost simultaneously with science itself. Our inquiry into its history must then begin with the followers of Francis Bacon, who created the 'scientific method' and trace the idea that can be studied scientifically through the rise of the empiricists into the present day. All citations for Bacon are to Bacon 2000.

Bacon, who we now credit with establishing 'The Scientific Method,' argued that the human mind tended to distort reality in regular, systematic ways, which he called 'idols.'¹ In order to understand reality, we must then give up on the idea that a single person can discover the truth on his or her own.²

In order to learn about the world, we need to work together, collaboratively creating a "natural and experimental history" (Bk 2, Ch X, p 109) of the phenomenon. As working collaboratively can lead to confusion and misunderstanding, we organize that natural and experimental history into a series of tables: including instances of the phenomenon's presence, closely related instances in which the phenomenon is absent, instances in which the phenomenon occurs in degrees or in comparison, and instances of exclusion of the phenomenon. Once these tables are built, we review them and create what Bacon called a 'first harvest' of the phenomenon. In short, this is a generalized axiom unifying the phenomenon yet held close to observation. Once that first axiom is established, we return to the tables, highlighting privileged instances which are further classified as solitary, transitory, revealing, etc.³ These, then can be used to further refine the first harvest into further, more careful axioms.

Bacon profoundly influenced Elizabethan England. His empirical method sparked inquiry in almost all areas of human knowledge, and formed the basis for what we now call the 'scientific revolution' or the 'enlightenment.' And his influence on psychology and psychiatry is actually far more direct than most would assume. Late in his life, Bacon became friends with the Philosopher Thomas Hobbes. In fact, Hobbes founded a Baconian reading group in Oxford, which is the forbearer of the Royal Society—the world's oldest scientific body.

Thomas Hobbes, who is most widely known for his initiation of

¹ The four idols distinguished by Bacon are the idols of the tribe, the cave, the marketplace and the theater. The idols of the tribe are those which we all share, as a function of our biology. They "have their origin either in the regularity of the substance of the human spirit; or in its prejudices; or in its limitations; or in its restless movement; or in the influence of the emotions; or in the limited powers of the senses; or in the mode of impression" (LII) The idols of the cave are those of an individual. They have their origin in "the individual nature of each man's mind and body; and also in his education, way of life and chance events." (LIII) The idols of the marketplace are those of miscommunication and misunderstanding. As Bacon says "For men believe that their reason controls words. But it is also true that words retort and turn their force back upon the understanding; and this has rendered philosophy and the science sophistic and unproductive." (LIX) The idols of the theater are those of intellectual 'showmanship.' They are "not innate or stealthily slipped into the understanding; they are openly introduced and accepted on the basis of fairytale theories and mistaken rules of proof." (LXI) All quotes from Bacon & Jardin (2000). Roman numerals indicate Aphorism number.

² For those of you who have read Rene Descartes *Meditations on First Philosophy* will no doubt recognize that Descartes predicated his entire philosophical system on the idea that working alone by pure reflection, he could discover immutable truths about the universe.

³ Bacon lists 27 different types of these 'privileged instances' in Book 2 of his *Novum Organon*.

social-contract theory in defense of absolute monarchy, opens his master work *Leviathan* with this bold claim:

Nature (the art whereby God hath made and governs the world) is by the *art* of man, as in many other things, so in this also imitated, that it can make an artificial animal. For seeing life is but a motion of limbs, the beginning whereof is in some principal part within, why may we not say that all *automata* (engines that move themselves by springs and wheels as doth a watch) have an artificial life? For what is the *heart*, but a *spring*; and the *nerves*, but so many *strings*; and the *joints*, but so many *wheels*, giving motion to the whole body such was intended by the artificer? Hobbes 1994, Ch 1, §1

Just as his famous social-political philosophy posited universal laws of human conduct, Hobbes believed that the human mind followed to universal laws which were deducible through reason. Always a Baconian, Hobbes begins by separating those who have minds (humans) from those who do not (non-human animals), and then query the difference between those two.

According to Hobbes, humans surpass animals in this faculty: “that when he conceived anything whatsoever, he was apt to inquire the consequences of it, and what effects he could do with it.” In addition, humans can “can by words reduce the consequences he finds to general rules, called theorems, or aphorisms; that is, he can reason, or reckon, not only in number, but in all other things whereof one may be added unto or subtracted from another.” Hobbes 1994, Ch V, §6.

Thus we have the beginning of psychology: human minds work by the process of deducing consequences and abstracting from particular experiences to general rules through basic logical functions.

Let’s take a moment to contrast this with an alternative approach. René Descartes, who many consider to be the founder of modern western Philosophy, argued that the mind was wholly distinct from the body, and therefore subject to an entirely different set of laws. His most famous argument for mind-body dualism asks us to doubt all that cannot be known with certainty, and then concludes that one cannot doubt that one is doubting; hence thinking; hence one cannot doubt that one is a thinking thing. This famous argument (called the “cogito”) is contained the First Meditation. But Descartes offers a much more interesting and influential argument in a number of other writings. The argument appears twice in *The Discourse on Methods*, first in part 3:

...if there were such machines having the organs and the shape of a monkey or of some other animal that lacked reason, we would have no way of recognizing that they were not entirely of the same nature as these animals; where as, if there were any such machines that bore a resemblance to our bodies and imitated our actions as far as this is

practically feasible, we would always have two very certain means of recognizing that they were not at all, for that reason, true men. The first is that they could never use words or other signs, or put them together as we do in order to declare our thoughts to others. For one can well conceive of a machine being so made that it utters words, and even that it utters words appropriate to the bodily actions that will cause some change in its organs... But it could not arrange its words differently so as to respond to the sense of all that will be said in its presence, as even the dullest men can do. Descartes and Sutcliffe 1968, Ch 3, 1637

And then again in part 5:

[in looking at the body] I found there precisely all those things that can be in us without our thinking about them, and hence, without our soul's contributing to them, that is to say, that part distinct from the body of which it has been said previously that its nature is only to think. And these are all the same features in which one can say that animals lacking reason resemble us. But I could not on that account find there any of those functions, which, being dependent on thought, are the only ones that belong to us as men, although I did find them all later on, once I had supposed God created a rational soul and joined it to this body in particular manner that I described. Descartes and Sutcliffe 1968, Ch 5, 1637

The same point appears in his *Letter to Henry More*:

Nevertheless it has never been observed that any brute beast arrived at such perfection that it could use true speech, that is, that it indicated by words or signs something that can be ascribed to thought alone, and not to a natural impulse. For speech is the only certain sign of thought concealed in the body, and all men, even the stupidest and most insane, make use of it, but not any brute. Therefore, this can be taken to be the true differentia between man and brutes Descartes and Ariew 2000, p. 297

In these passages, Descartes ascribes to humans alone the ability to use language and conceive of abstract ideas. He then finds that these abilities cannot be the products of material, finite reality. As experience is limited to finite reality, ideas of things that are not finite must be 'ascribed to thought alone.' Thus, these ideas must be innate to the mind and not based on experience. It follows that these distinctly human abilities are the products of a non-material infinite reality. In short, the argument is this:

1. Humans alone use language and conceive of abstract entities (i.e. 'infinity').
2. No material mechanism could ever use language or conceive of an abstract entity.
3. Therefore, humans cannot just be not material mechanism

Hobbes' asserted earlier that human beings could be imitated through material mechanisms, and that our minds are ruled by the law of inquiring of the consequences of an action. This runs directly counter to Descartes' argument, as Hobbes believes abstract entities are merely the result of inquiring consequences. But insofar Hobbes has only made an assertion—a hypothesis—it needs empirical demonstration. To establish Hobbes' contention and meet Descartes' challenge scientifically, Hobbes must show a physical machine could, through experience, develop both the ability to speak rationally and conceive of abstract entities that are not clearly the product of experience (such as 'infinity').

It is easy to see how the process of 'addition and subtraction' could produce a concept of infinity. But it is hard to see how simple arithmetic could produce a machine that could "arrange its words differently so as to respond to the sense of all that will be said in its presence, as even the dullest men can do."

John Locke follows Hobbes in this, just as he does in the development of political liberalism. Locke's famous *Essay on Human Understanding* opens with a fifty-eight page argument against the idea of innate ideas. Locke picks up the project where Hobbes left off, adding 'reflection' (what we now call 'introspection') as an additional source of ideas. For Locke, like for Hobbes, the mind is populated with ideas that originate in experience. We come to understand our minds, and how our minds occasionally lead us astray, by understanding the mental mechanisms that produce ideas from sensation. Abstract ideas like 'infinity' are the products of a process of abstraction:

Finite then, and infinite, being by the mind looked on as modifications of expansion and duration, the next thing to be considered, is, -How the mind comes by them. As for the idea of the finite, there is no great difficulty...Every one that has an idea of any stated lengths of space, as a foot, finds that he can repeat that idea; and joining it to the former, make the idea of two feet; and by the addition of a third, three feet; and so on, without every coming to an end of his additions, whether of the same idea of a foot, or, if he pleases, of doubling it, or any idea he has of any length, as a mile, or diameter of the earth, or of the orbis magnus...This, I think, is the way whereby the mind gets the idea of infinite space. – Locke 1959, Book 2, Ch17

But like Hobbes, Locke fails to explain how language structure could be produced by a finite mechanism.

At the same time Locke was writing in England, Antoine Arnaud, a fervent supporter of Descartes' theory of mind, was developing a school of thought in France which we now call the 'Port-Royalist' movement. (Carr 1996) The Port-Royalists held that the structure of grammar was universal for humans and could be reduced to the laws of logic. Unlike the empiricists Hobbes and Locke, however, the

Port-Royalists, who including the great logician and mathematician Pascal, were dualists and theists. (Clark 1903) For the Port-Royalists, thought was different from language, although we tend to think in language through force of habit. Pure thought, both in its content and its structure, becomes imperfect when 'translated' into an imperfect spoken language. A perfect language, and perfect grammar, would be possible if each word signified unequivocally a single simple idea, and the grammar of speech matched perfectly the 'grammar of thought.'

The empiricists Hobbes and Locke have adequately responded to Descartes' assertion that ideas about abstract objects could not have their origin in the physical, finite, world. But neither of them have managed to respond meaningfully to the assertion that the ability to put ideas together *in language* cannot be the product of the physical, finite world.

David Hume, the great Scottish Empiricist is really the first to answer this challenge. He took Locke's argument against innate ideas and married it to the idea of a universal structure of the mind. First, he extending the argument against innateness beyond the concept of the infinite:

The idea of God, as meaning an infinitely intelligent, wise, and good Being, arises from reflecting on the operations of our own mind, and augmenting, without limit, those qualities of goodness and wisdom.
Hume 1975, §2, p. 14

And second, he advanced the thesis that principles of connection between ideas in the mind were regular and hence subject to empirical investigation. In fact, he posited three: RESEMBLANCE, CONTINUITY in time or place and CAUSE and EFFECT. Hume 1975, Part 1, §IV

This thesis he believed explained the universality of human language structures:

It is evident that there is a principle of connexion between the different thoughts or ideas of the mind, and that, in the appearance to the memory or imagination, they introduce each other with a certain degree of method or regularity.... Among different languages, even where we cannot suspect the least connexion or communication, it is found, that the words, expressive of ideas, the most compounded, do yet nearly correspond to each other: a certain proof that the simple ideas, comprehended in the compound ones, were bound together by some universal principle, which had an equal influence on all mankind.

Thus, with Hume, we can find the origin of the empirical study of the mind, although 'psychology' was not distinguished from 'natural philosophy' for at least another century.

It is important to point out here that for these thinkers, the objects of study are *ideas*. The central claims are that there are regular, law-

like relationships between ideas themselves, whether they be causal or grammatical. That central claim unites them with early psychology⁴. But as we will see, is the challenged in the Behaviorist revolution in the US in the early 1930's and 1940's.

Birth of Psychology: German Physiological Psychology in the 1880s–1890s.

In about 1847, four friends, three of them students of Johannes Müller (1801–1858), gathered together in Berlin to swear an oath dedicating themselves to undermining vitalism: the theory that all living entities shared a special irreducible ‘vital force.’ They committed themselves to the view that:

No other forces than the common physical-chemical ones are active within the organism. In those cases which cannot at the time be explained by these forces one has either to find the specific way or form of their action by means of the physical –mathematical method or assume new forces equal in dignity to the chemical-physical forces inherent in matter, reducible to the force of attraction and repulsion. (Quoted in Bernfeld 1949)

These four friends were Hermann von Helmholtz (1821–1894), Carl Ludwig (1816–1895), Emil du Bois-Reymond (1818–1896) and Ernst Wilhelm von Brücke (1819–1892). They were joined shortly thereafter by Hermann Lotze (1817–1891) and his student Gustav Fechner (1801–1887) and came to dominate the training of the next generation of psychologist and psychiatrists: Helmholtz hired Christine Ladd-Franklin as his assistant, who went on to be one of the first woman members of the APA, and the first woman to hold a professorship at the University of Chicago. Sigmund Freud studied under Brücke; Ivan Pavlov under Ludwig and Wilhem Wundt under du Bois-Reymond. Wundt went on to work in Helmholtz’s lab after Ladd-Franklin returned to America.⁵

While all four of these thinkers had a profound influence on the founding and development of psychology as a discipline, we’ll focus attention for the moment on Helmholtz⁶.

Helmholtz was one of the great scientific minds of his era. Not only is he now recognized as a godfather of experimental psychology, he is widely respected in the history of Optics, and is, in many ways, the father of ophthalmology, having invented the ophthalmoscope.

His professor, Müller, held that nerves had ‘specific sense energies’ naturally: our sensory system had certain *a priori* assumptions⁷ about time and space literally built into them, making sensory experience like binocular vision possible. Students familiar with the history of philosophy may recognize this as a position influenced by Kantian psychology.

Helmholtz, however, posited that our mental system as a whole adjusted itself through a process of ‘unconscious inference’ to represent

⁴ There are many instances of this claim in the history of psychology: see, e.g. Wundt, 1876 (p. 175)

⁵ I can illustrate some of the differences in theoretical approach here with the example of color perception: Helmholtz posited that there were three basic primary colors: red, green and purple. Ladd-Franklin argued that purple perceptually appeared to be (i.e. ‘looked like’) a mixture of red and blue, whereas yellow appeared to be primary. Thus, she theorized, there are in fact four psychologically primary colors: red, green, blue and yellow. Helmholtz responded (quoted in Hering) that one could not draw conclusions about facts of physiology from direct psychological experience (i.e. introspection), therefore Ladd-Franklin’s observation had no bearing on the science of psychology. While Ladd-Franklin’s point seems obvious and definitive against Helmholtz’s theory, it was widely rejected, on the basis of the unreliability of introspective reports and observations, in favor of the physiological reductionism of Helmholtz. In fact, it wasn’t until a plausible mathematical model based on Ladd-Franklin’s observation was proposed by Jameson and Hurvich in 1957 that the psychological community rejected Helmholtz’s theory in favor of Ladd-Franklin’s.

⁶ Experienced Reactors may recognize Helmholtz’ name from the Darwin Game.

⁷ *a priori* is a philosophical term meaning ‘prior to experience.’ It is frequently used to describe philosophical positions like Descartes’ that believe knowledge can be gained by reflection alone. In this case, it means that the nerves have assumptions about the world ‘built in’ before experience. If you wanted to use a computer analogy, Müller believes that knowledge about time and space is encoded in our hardware, where the empiricists like Hobbes, Locke and Hume believe it is in software that is built through experience.

the external world. The contents of our experiences—the redness of a red apple, for example—are merely ‘signs’ or ‘indicators’ of the objects in the world that our experiences represent. Our sensory systems automatically and unconsciously *recover* the world through the complex information to which it has access.

Unconscious inferences that produce stable representations (I.e. experience of a red apple) are *not* accessible to us through mere reflection, but neither are they ‘built in’ or ‘innate.’ They are, in short, trained through experience with the regularities of the world itself. The process of sensation is learned, not biologically determined. While contemporary psychophysics has advanced greatly since 1850, the basic model of how perception works in psychology today is Helmholtz’s.

Major areas of research during the infancy of psychology

Sensation and Perception: Fechner

On the morning of 22nd of October, 1850, a young physiologist named Gustav Theodor Fechner lay in bed, puzzled by the relationship between the intensity of a psychological experience (i.e. hearing a sound, measured by introspection) and the intensity of the physical stimulus (i.e. the amplitude of the air vibrations). On that morning, it occurred to him that the relative increase in the physical stimulus might correspond to the relative increase in the psychological experience. It took him a decade to prepare the idea for publication, which he presented as ‘Weber’s law’:

$$dp = k(dS/S)$$

where dp is the change in the psychological experience, k is a constant to be determined experimentally, dS is the change in the stimulus and S is the stimulus. He added to this the idea that the physical stimulus must break a certain threshold to be perceivable at all to derive what is now known as ‘Fechner’s law’:

$$p = k \ln(S/S_0)$$

Where S_0 is the threshold under which the stimulus is not perceived.

Fechner’s law is the first mathematical law (some might say ‘model’) in psychology. It posits a specific relationship between a psychological entity (sensation) and a physical entity (the stimulus). Unlike his predecessors who had contented themselves with discovering the relationships between ideas in a rather imprecise way, Fechner had both

bridged the divide between the psychological and the physical, and given that bridge the precision of Calculus.

Fechner's book, *Elements of Psychophysics*, published in 1860, had a profound effect in both Germany and England. Physiologists now had a model of precision for which they could strive. And psychologists had a model of understanding the relationships between the physical and the psychological. Most importantly, however, the book inspired Hermann Ebbinghaus to begin studying memory. But that story will have to be left to another time.

Introspection: Wundt

Today, we generally consider Wilhem Wundt's lab at Leipzig to be the first true psychological laboratory. Helmholtz's lab, it is argued, was a lab of physiology, not psychology. But that distinction can be argued over. Wundt, unlike Helmholtz, believed that the causal relations governing ideas and experience were of a different *kind* than those governing the physical world. And it was the challenge of psychology to discover those laws and observe those regularities.

Wundt was, however, a student of Helmholtz. He didn't run off and join Descartes in reflection. Rather, he believed that the proper explanation of the laws of psychology would make use of the properties of the central nervous system. In Wundt's own words:

Physiology and psychology cover, between them, the field of vital phenomena; they deal with the facts of life at large, and in particular with the facts of human life. Physiology is concerned with all those phenomena of life that present themselves to us in sense perception as bodily processes, and accordingly form part of that total environment which we name the external world. **Psychology, on the other hand, seeks to give account of the interconnection of processes which are evinced by our own consciousness**, or which we infer from such manifestations of the bodily life in other creatures as indicate the presence of a consciousness similar to our own. (1902, p. 1)

Shortly thereafter, he asserts that Psychology is “**the investigation of conscious process in the modes of connection peculiar to them.**” Wundt 1902, p. 2) As consciousness is a unique phenomenon in this world, it can only, then, be approached with the investigative tools unique to consciousness: direct experience of consciousness by ourselves or inferred in others on the basis of direct observation and analogy. This does not mean, however, that a science of psychology is purely introspective. On the contrary, Wundt proposed a ‘physiological psychology’: a theory of conscious experience informed by our physiological understanding of the brain, what Wundt calls the ‘bodily substrate of mental life.’

The nervous system was thought to be made up of a ‘central substance’ that maintained an equilibrium and ‘nerve-fibres’ that connected cells together. This ‘central stuff’ was understood not to just transmit information, but to modify it in one of two ways: first, if it were exposed to repeated stimulus, the amount of energy needed to produce a response would decrease, and second, in some cases, it could invert the signal into its opposite (i.e. from ‘x more than equilibrium’ to ‘x less than equilibrium’). Wundt sought to reduce Hume’s four standard ‘Laws of Association’ of ideas—similarity, contrast, spatial and temporal contiguity—to simple ‘internal connection’, as ‘contrast’ is a completion of an idea in the same way ‘similarity’ is; and contiguity in space and time are external, not internal, relationships. Ideas tend to produce their contrasting idea, rather than ideas which are similar, when they are accompanied by strong feelings, as all feelings have a kind of ‘elasticity’ to them, always presenting with its opposite feeling implicitly.

‘Internal connection,’ is then explained by what Wundt called ‘central innervation,’ or the properties of the nervous system. Wundt 1876 It is a fundamental law of neuroscience, even then, that ‘neurons that wire together fire together.’ For Wundt and his followers, the similarity and contrast of ideas was explainable by the excitation and inhibition properties of these nerves.

Behavior: Pavlov

Ivan Pavlov was, like the others in this section, a physiologist first. His interest in psychology was, for the most part, tangential to his work in physiology. Between 1891 and 1900, Pavlov conducted a series of experiments on salivation in dogs. His primary interest at this time was to explain why dogs salivated when presented with food at a distance. The common-sense psychological explanation, of course, is that the dog wants the food. Or even that the dog *imagines* or *anticipates* having the food. More technically, early psychologists would have said the dog *associates* food and saliva. But these are not physiological explanations, and they would not satisfy Pavlov.

Using a recently invented apparatus, Pavlov was able to measure the amount of saliva dogs produced in response to a food stimulus. After a number of experiments, Pavlov noticed that the dogs were salivating without any food present. It occurred to him that in these case, the dogs’ salivation response might be responding to the lab techs, rather than food itself. To test this hypothesis, he presented food to a dog and simultaneously rang a bell. After repeated exposures to this combination of stimuli, Pavlov removed the food, leaving just the bell. He found that the dogs still salivated.



Figure 2.1: Pavlov’s Laboratory, image from Wikimedia commons: <https://pt.wikipedia.org/wiki/Ficheiro:Ivan-Pavlov06.jpg>

Thus, Pavlov discovered what came to be called ‘classical conditioning’: to train a behavior, one presents a new stimulus (the conditioned stimulus) concurrently with the stimulus that ‘naturally’ produces the desired behavior (the unconditioned stimulus). After repeated training, the desired behavior (conditional response) will occur with the new (conditioned) stimulus, without the presence of the original, ‘natural,’ unconditioned stimulus.

Pavlov’s primary application of his findings were to the nervous system as a whole as well as “heart, digestive tract and other organs in the higher animals” (lecture 23), he didn’t shy away from suggesting that it could be used to explain the seemingly involuntary habitual actions of those deemed ‘psychotic’ or ‘neurotic.’ Conditional responses were, however, breakable, or in behaviorists terms ‘extinguishable,’ if one conditioned a new stimulus in place of the existing stimulus-response association.

Pavlov placed particular emphasis on the idea that his experiments were purely objective and not open to observer influence, such as the experiments of the Wundt and his ‘introspectivists.’ In fact, he closes his 1927 lectures with the bold claim that:

all the experiments, those of other workers as well as our own, which have set as their object a purely physiological interpretation of the activity of the higher nervous system, I regard as being in the nature only of a preliminary inquiry, which has however, I fully believe, entirely justified its inception. We have indisputably the right to claim that our investigation of this extraordinarily complex field has followed the right direction, and that, although not a near, nevertheless a complete, success awaits it. Pavlov 1927

The importance of Pavlov’s theorizing should be obvious at this point: classical conditioning provided a physiological law-like relationship that could take the place of (provide the bodily substrate for) the association of ideas. And it provides a mechanisms for creating, intervening in, or destroying those associations—which no previous theory had managed to do thus far.⁸

American Psychology: William James and the function of consciousness

During this period of profound growth and advancement of psychology in Germany, American Universities were not institutions of research, but institutions of education. Starting in about 1876, that started to change. Johns Hopkins University was founded in Baltimore in 1876 with the explicit mission of “The encouragement of research; the encouragement of young men; the advancement of individual scholars, who by their excellence will advance the sciences they pursue, and the society where they dwell.”⁹

⁸ I am skipping, for the sake of space, the fascinating history of British psychology during this period, as it adapted associationism to the new physiology. See Daston 1978

⁹ Daniel Coit Gilman, the first President of Johns Hopkins, admired not just the German University, but what he called the “German Mind” as well: “The thoroughness of the German mind, its desire for perfection in every detail, and its philosophical aptitudes are well illustrated by the controversies now in vogue in the land of universities.”(http://webapps.jhu.edu/jhuniverse/information_about_hopkins/about_jhu/daniel_coit_gilman/)

Of the 53 men appointed to the faculty of Hopkins by 1884, nearly all had been educated at German Universities, and 13 held what was then a German degree, the "PhD." The few exceptions to this rule were the eminent American pragmatists John Dewey and C.S. Peirce.

What followed can only be described as an explosion in research universities in America. Clark University was founded in 1887 and the University of Chicago in 1892. In 1860, no PhDs were awarded in America. By 1890, 164 PhDs had been given. The first of these in 'Psychology' was given to G. Stanley Hall by Harvard in 1878.

I mention all of this because the German understanding of the science of the mind—specifically that of Helmholtz and his anti-vitalists—became synonymous with the understanding of research in Psychology during this period. In short, if one approached the mind in some fashion other than this experimental tradition, it simply was viewed as not contributing to research, and hence, was not considered suitable for graduate instruction. More often than not, advocates for views not in accordance with physiological-psychology were restricted to departments of philosophy or anthropology. A particularly good example of this kind of reasoning is G. Stanley Hall's 1879 paper 'Philosophy in the United States,' in which he laments American Philosophy as little more mental discipline and moral training in the Christian tradition.

In the middle of this storm sits William James. James, in many ways, bridges the divide between the older approach to liberal education and the new approach to research as a function of the university. James himself accredits his interest in Psychology to his time spent in Germany, yet his entire career was spent teaching at the traditional college: Harvard. He advocated for experimentalists, but appeared to perform no psychological experiences himself. His students are the major figures in this first generation of research institutions and Psychology departments, including G. Stanley Hall; yet his position was always in the department of Philosophy, something he appeared to have insisted upon.¹⁰ James had a life-long friendship with the two Hopkins pragmatists, C.S. Peirce and John Dewey, who went on to supervise Christine Ladd-Franklin at Hopkins.¹¹ Moreover, James was in frequent contact with the early British philosophers of mind including Alexander Bain, Herbert Spencer and John Sully.

In 1878 James contracted with Henry Holt and company to write a textbook for this nascent field of psychology. The resultant book *The Principles of Psychology* is a classic in the field. In it, James defines psychology as "the science of mental life, both of its phenomena and of their conditions" (James 1890, p. 1) and identified introspection as its chief method.

James held that consciousness (which was the central phenomenon

¹⁰ See Ch. V of Miller 1962

¹¹ George Miller argues that "If Watson had not been so inept as a philosopher, he might have offered behaviorism as a pragmatic theory of mind, comparable to Peirce's pragmatic theory of meaning, James' pragmatic theory of truth, and Dewey's pragmatic theory of value." Miller 1962, p. 66

to be studied by psychology) was like stream, encompassing much more than mere ‘associations’ of ideas. The associationists who followed Hume isolated experiences from their context, and provided a overly simplistic account. The object of study of psychology—the relations, tendencies and emotions that make up the stream of consciousness—are experienced directly in introspection, and form the basis of genuine scientific inquiry into the mind.

James' fellow pragmatists Peirce and Dewey went on to construct a theory of psychology focused on the functions of mental states, what was called ultimately called “The Chicago School.” James 1904 Dewey argued that explanations of human activity that focused merely on the ‘stimulus’ and ‘response’ or the British thinker W.K. Clifford’s ‘reflex arcs’ were inadequate characterizations of conscious states. In order to truly characterize, and then study, conscious states, science must take into account the function or end of those states. In his words:

the distinction of sensation and movement as stimulus and response respectively is not a distinction which can be regarded as descriptive of anything which holds of psychical events or existences as such. The only events to which the terms stimulus and response can be descriptively applied are to minor acts serving by their respective positions to the maintenance of some organized coördination. The conscious stimulus or sensation, and the conscious response or motion, have a special genesis or motivation, and a special end or function. The reflex arc theory, by neglecting, by abstracting from, this genesis and this function gives us one disjointed part of a process as if it were the whole. Dewey 1896, p. 370

Functional psychology thus emphasizes the role mental entities play in an organisms behavior, not what those ideas represent, or the ‘content’ of those ideas. Dewey Dewey 1916

Experimentalism: Ebbinghaus and the unreliability of introspection

In or about 1878, inspired by Fechner's stunning results investigating sensation, Hermann Ebbinghaus started experimenting with memory.¹² Ebbinghaus sought, like all of his contemporaries, to understand the association of ideas. But he was worried, rightfully so, that using existing words or concepts in an experimental design would allow for the individual subject's previous experience with those words or concepts to influence the result of the experience. Thus, to isolate the association of ideas from any prior influence, he created long lists of nonsense syllables (VAM, ZOK, etc.) and set about memorizing them. He then precisely measured the number of repetitions or amount of time it took to repeat list perfectly, something he called trials to criterion. As it turns out, the longer the list, the more time, or

¹² See 4.3 on page 145 for more on Ebbinghaus' experiments. Ebbinghaus 1885

trials, it takes to memorize it. But that wasn't all: he further tested the process of forgetting.

After some arbitrary period, Ebbinghaus would return to the same list and restart the entire process. If it took him the same number of repetitions to memorize the list to perfection, his forgetting would have been complete. What Ebbinghaus found was that even if he could not introspectively recall items on the list after some time, it took fewer repetitions for him to learn the list to the criterion or perfection. Thus, a decade before Freud made it fashionable to believe in the unconscious, Ebbinghaus had demonstrated empirically that the mind could retain information that it could not bring to subjective, introspective awareness.

This discovery was a bombshell to the introspective protocols of Wundt and James. Pavlov had shown that 'unconscious' behaviors like salivation could be trained to a stimulus without the intervention of introspection, but Ebbinghaus showed that a paradigmatic psychological phenomenon—memory—was subject to the same training. While Ebbinghaus' work was originally published in 1885 in German, it was not published in English until 1913—which 'just happens' to be the same year James Watson declared the beginning of the Behaviorist revolution.

Titchener—The Structure of Consciousness

E.B. Titchener was British psychologist who earned his Doctorate under Wundt's direction in 1892. He emigrated to the US for a position at Cornell University in Ithaca, NY. For Titchener, Psychology was "science of mental processes" Titchener 1896, p. 5. The term 'mental' should give us a little pause.

Jump back, for a moment, to René Descartes. In 2.2 on page 25, we discussed Descartes' argument for the existence of the mind as separate from the body on the basis of language and language use.

Titchener's definition of 'mental' follows in the Cartesian tradition of introspectability: "A mental process is any process, falling within the range of our experience, in the origination and continuance of which are ourselves necessarily concerned." Titchener 1896, p. 5
Psychology is the science of the 'mind' insofar as we understand 'mind' to be the sum total of mental processes experienced by an individual over the course of a lifetime.

The problem of a Psychology is

- (1) to analyze concrete (actual) mental experience into its simplest components,
 - (2) to discover how these elements combine, what are the flaws which govern their combination and
 - (3) to bring them into connection with their physiological (bodily) conditions.
- Titchener 1896, p. 12

As science begins with analysis—breaking up phenomena into its component parts¹³—the first task is to divide and separate mental processes until we arrive at the base unit of analysis: the mental experience. Laws for combining and associating these experiences are then introduced, and the connection thereof to the physical body.

For Titchener, the fundamental unit—the ‘atom’, as it were—of psychology is sensation. Sensation comes to experience fully formed, and cannot be further divided¹⁴. Sensation is inherently personal, as no one can directly observe another’s sense experiences. Investigating sensation therefore requires introspection. But this does not mean it is unscientific. Indeed, introspection can be performed in reliable ways that would allow for replication by others:

Have yourself placed under such conditions that there is as little likelihood as possible of external interference with the test to be made. Attend to the stimulus, and, when it is removed, recall the sensation by an act of memory. Give a verbal account of the processes constituting your consciousness of the stimulus. Titchener 1896, p. 36

Titchener’s influence on psychology was two-fold. First, he had a student, and devotee, named E.G. Boring. Boring published his *History of Experimental Psychology* in 1929. As the first history of psychology, it largely shaped how Psychology understood itself, enshrining Titchener’s views on science as analysis and sensation and perception as the starting point in Psychology for generations. Second, Titchener’s insistence on Wundt’s introspective method as *the* starting point for Psychology sparked the first revolution: behaviorism.

Psychology’s First Revolution: Behaviorism

John B. Watson (1878–1958) opens his 1913 manifesto “Psychology as the Behaviorist Views it.” with the bold claim that **Psychology**

“is a purely objective branch of natural science. Its theoretical goal is the prediction and control of behavior. Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness. The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute. The behavior of man, with all of its refinement and complexity, forms only a part of the behaviorist’s total scheme of investigation.”

Watson 1913, p. 158

In a 1929 debate with the Harvard professor and physiological-psychologist William MacDougall (1871–1938), Watson anticipated a common criticism of behaviorism: that it cannot explain our rich interior mental life—what William James called the “stream of consciousness.” Watson responded that if we were to take the inner mental life

¹³ Students who have read Descartes ‘methods’ will no doubt recognize his continuing influence on Titchener’s thinking.

¹⁴ Much of Titchener’s work looks, to the contemporary reader, more like philosophy and phenomenology than psychology.

as the object of study, rather than observable behaviors, there would be "as many analyses as there are individual psychologists. There is no element of control. There is no way of experimentally attaching and solving psychological problems and standardizing methods." Thus, psychologists must limit themselves to "things that can be observed, and formulate laws concerning only the observed things."

Watson 2013

According to Watson, 'observable things' includes only "what the organism says or does," which must then be described "in terms of 'stimulus and response.'" By 'stimulus,' Watson means "any object in the general environment or any change in the physiological condition of the animal, such as the change we get when we keep an animal from sex activity, when we keep it from feeding, when we keep it from building a nest. By response we mean that system of organized activity that we see emphasized anywhere in any kind of animal, as building a skyscraper, drawing plans, having babies, writing books, and the like."

Watson's behaviorism explains the behavior of all organisms (not just humans) by producing laws of correlation between stimuli and responses. This was a massive extension of the field of psychology, as animals and babies were not able to give introspective reports. Following Pavlov, Watson contends that an organism initially engages in some random behavior (say, a baby squirming) in response to a stimulus. This 'unconditioned response' may be biologically determined, but it is not yet a law of psychology. To 'condition' a response, one presents the unconditioned stimulus along with a new stimulus repeatedly. Over time, the organism responds to the new, conditioned stimulus with the original unconditioned response. Thus, to explain any given behavior, one must find the conditioned stimulus that is now correlated with the conditioned response.

MacDougall, among others, challenged Watson to explain "thinking" or "thought" in terms of stimulus and response. Watson does not shy away from this challenge:

"The increasing dominance of language habits in the behavior of the developing child leads naturally over into the behaviorist's conception of thinking. The behaviorist makes no mystery of thinking. He holds that thinking is behavior, is motor organization, just like tennis playing or golf or any other form of muscular activity. But what kind of muscular activity? The muscular activity that he uses in talking. Thinking is merely talking, but talking with concealed musculature." Watson and MacDougall 2013, p. 464

According to Watson, a child initiates verbal behavior by talking aloud to and about his surroundings. As that behavior is negatively reinforced, it changes to mumbling to oneself, and ultimately to keep-

ing one's lips closed. It follows that thinking is not an activity of the mind/brain alone, but a kinesthetic experience of the entire organism—in short, a behavior. Words are, in Watson's view “the conditioned substitutes for our world of objects and acts. Thinking is a device for manipulating the world of objects when those objects are not present to the senses.” Watson 2013

Maturing Behaviorism: Tolman and Hull

During the middle of the 20th century, behaviorism in America divided roughly into two camps: Tolman and Hull. Edward Chace Tolman (1886 – 1959) initiated the ‘war’ in 1922 by criticizing Watson.¹⁵ Tolman argued that Watson’s belief that all human behavior could be explained in terms of “muscle contraction and gland secretion, as such, would not be behaviorism at all but a mere physiology.”¹⁶ Tolman 1922, p. 45

For Tolman, a behavioristic science must answer three major problems: “(1), given the stimulating agency, determining the behavior-cues (2), given the behavior-cues, determining the behavior-object and (3), given the behavior-object, determining the behavior-act.” (p. 51). (1) is the problem of psychophysics, which is adequately solved by Fechner. (2) is accessible, with rewording, by classical conditioning. (3) is the “important problem of motive.” A proper science of behavior must answer all three of these problems. Doing so, Tolman contends, would allow the behaviorist to understand and better elucidate introspection.

Opposing Tolman, Clark Hull (1884 – 1952) contended that in order for a postulate or theorem to be “truly scientific,” it must “take the form of specific statements of the outcome of concrete experiments or observations.”¹⁷ Hull et al. 1940 Simple classification of behavior are not, themselves, scientific. But neither is talk of such things as motives. Scientific explanations must make use of clear, unambiguous terms that refer to observable behavior. Everything else is simply not considered to be ‘science.’ Hull contends that psychology should produce mathematical equations that would specify precisely all the relationships between variables that account for an organism’s behavior. The specific behavior of a given organism would be an instance of these universal mathematical generalizations.

Hull’s primary contribution to behaviorism is the thesis that when a given stimulus has the effect of reducing a biological need, the connection between the stimulus and the response is strengthened automatically. While that statement may seem like a commonsense position today (food given as a reward, e.g.), the important part of it in 1935 was the word of ‘automatically.’ Contrary to the introspectivists

¹⁵ Today, Tolman is sometimes called a ‘Cognitive Behaviorist’ (see Holland 2008, e.g.) The term was used by Hull’s defender, Spence, to refer to Tolman’s views in 1950. (Spence 1950).

¹⁶ In the interests of conciseness, I am skipping over the fascinating and under-rated history of Gestalt psychology. I do this with a heavy heart, as it is one of my favorite topics in the history of psychology. Characters who wish to engage with the tradition of behaviorism, however, should pay careful attention to Wolfgang Köhler’s presidential address, included in the appendix, for the Gestalt concerns about this period in American Psychology.

¹⁷ This is only one of Hull’s four criteria. The other are: (1) The definitions and postulates of a scientific system should be stated in a clear and unambiguous manner, they should be consistent with one another, and they should be of such a nature that they permit rigorous deductions. (2) The labor of deducing the potential implications of the postulates of a system should be performed with meticulous care and exhibited, preferably step by step and in full detail. It is these deductions which constitute the substance of a system. (4) The theorems so deduced which concern phenomena not already known must be submitted to carefully controlled experiments. The outcome of these critical experiments, as well as all previous ones, must agree with the corresponding theorems making up the system.

or even commonsense, one need not be aware of the satiation of one's physical desires in order to strengthen the association between the conditioned stimulus and the conditional response. In fact, most conditioned associations are not accessible to introspective awareness.

Methodologically, Hull's insistence on the mathematical-deductive structure of theory led to a cadre of young psychologists who were able to represent complex relationships between variables mathematically. Hull et al. 1940 Many members of that generation ended up at Stanford, ultimately providing much of the theory of information processing that allowed the cognitivists to advance sophisticated mathematical and computer models of cognitive states.

In response to Hull, Tolman argued that simple stimulus-response connections were insufficient to explain behavior: specifically rats running a maze for a food reward. In his famous 1948 paper "Cognitive Maps in Rats and Men," Tolman presented evidence that showed rats that were allowed to wander around a maze randomly before the beginning of training period learned the maze more quickly than rats that began training without prior exposure to the maze. (Tolman 1948) Tolman argued that the best explanation for this phenomenon—and our general intuition about why rats appear to pause before beginning down a specific course—is that the rats have built up a 'cognitive map' of the maze through their random explorations. He goes so far as to suggest that the rats had the ability to learn through 'Vicarious Trial and Error,' or 'imagining' what would happen if they responded to a particular stimulus. For Tolman, this was:

evidence that in the critical stages—whether in the first picking up of the instructions or in the later making sure of which stimulus is which—the animal's activity is not just one of responding passively to discrete stimuli, but rather one of the active selecting and comparing of stimuli.
Tolman 1948, p. 200

One of Tolman's students, Ritchie, constructed further experiments to test the capacity of the rats' cognitive maps. By starting rats on the far side of the laboratory, Ritchie found that the rats tended to navigate not by the direct path to the reward, but to the walls of the room itself. Thus, Tolman contends, the rats' cognitive maps were 'strip-like' and 'narrow.'

It is this concept—the breadth or narrowness of cognitive maps—that allows Tolman to extrapolate to the human mind, going so far to suggest that we may interpret the various psychological mechanisms posited by psychoanalysts as "narrowings of our cognitive maps due to too strong motivations or too intense frustration." Thus, racists, sexists, pathological patriots, etc. are individuals with too narrow a 'cognitive map.' A healthy mind—and a well educated person—is one who can use reason, i.e. "broad cognitive maps" to

"look before and after, learning to see that there are often round-about and safer paths to their quite proper goals-learn, that is, to realize that the well-beings of White and of Negro, of Catholic and Protestant, of Christian and of Jew, of American and Russian (and even of males and females) are mutually interdependent." Tolman 1948, p. 208

Operant Conditioning & Radical Behaviorism: Skinner

Starting in 1938, Behaviorism underwent a radical transformation. In that year, Burrhus Frederic Skinner (1904 – 1990) published *The Behavior of Organisms: An Experimental Analysis*, in which he introduced the idea of operant conditioning.¹⁸ (Skinner 1990) Skinner's insight was not entirely without precedent, but rather built upon the concept of 'instrumental conditioning' originally introduced by Edward Thorndike (1874–1949).

According to what is now called 'Thorndike's law of effect', if a response is followed closely by a pleasurable experience, it is more likely to be associated with the stimulus than if it is followed by an unpleasant or neutral experience. Skinner turned this idea into the central explanatory mechanism of behaviorism: rather than the conditioned stimulus occurring simultaneously with the unconditioned stimulus, the conditioning stimulus occurs immediately after the desired behavior as a consequence of the desired behavior. In his own words:

Operant behavior usually affects the environment and generates stimuli which is "feed back" to the organism. Some feedback may have the effects identified by the layman as reward or punishment. Any consequence of behavior which is rewarding or, more technically, reinforcing increases the probability of further responding. Skinner 1972, p. 129

By introducing the idea of reinforcement of a behavior as whatever makes it more likely that that behavior will occur, Skinner was able to undercut Tolman's (and MacDougall's before him) insistence that a purpose or goal was required to explain the behavior of animals.

As a boy, Skinner was fascinated with mechanisms. Legend has it that he even built a steam cannon out of a discarded water boiler. Extraordinarily intelligent, Skinner found Francis Bacon's works at about fourteen, and became enamored with the idea that Bacon may have written Shakespeare's plays. He majored in English and literature at Hamilton College, where he became famous for elaborate practical jokes. During his time at Hamilton, he expressed significant interest in the authors Joyce and Proust – but also physiological psychologists Pavlov and Jacques Loeb. Legend has it that he met Robert Frost, who encouraged him to become a writer. After that did not pan out, he returned to behaviorism through the work of Bertrand Russell—specifically Russell's comparison between 'reflex' and 'force' in physics.¹⁹

¹⁸ See the section on behaviorism in the 'Public Character info' section for more on the difference between operant and classical conditioning.

¹⁹ "Gradually it was found that all the equations could be written down without bringing in forces. What was observable was a certain relation between acceleration and configuration; to say that this relation was brought about by the intermediacy of 'force' was to add nothing to our knowledge. Observation shows that planets have at all times an acceleration towards the sun, which varies inversely as the square of their distance from it. To say that this is due to the 'force' of gravitation is merely verbal, like saying that opium makes people sleep because it has a dormitive virtue. The modern physicist, therefore, merely states formulae which determine accelerations, and avoids the word 'force' altogether. 'Force' was the faint ghost of the vitalist view as to the causes of motions, and gradually the ghost has been exorcized." Russell 2013, p 495

Inspired by Pavlov's maxim "control the environment and you will see order in behavior," as well as his passion for inventing mechanisms, Skinner began to create machines that would control behavior of an organism by automatically rewarding the desired behavior and punishing behavior that was not desired.

These successes led Skinner to hypothesize that all animal behavior—including human behavior—resulted from such forces. He delineated four types of operant conditioning: positive reinforcement, negative reinforcement, punishment and extinction, which he studied with mathematical precision. Skinner shifted behaviorism's emphasis from reflexes to regularities of the whole organism, moving from the causal link between stimulus and response to the relationship between the response and its reinforcement.

According to Skinner, this form of behaviorism was the inevitable development of psychology into a full-fledged science. Often pulling on an analogy to the history of physics, chemistry and biology, he argued that 'consciousness' and 'inner causes' were the remnants of superstition, and human psychology and society could be perfected through the principles of operant conditioning.

Skinner adamantly insisted that scientific inquiry could not countenance hypothetical unobservable entities. Following Russell, Skinner argued that explaining a given behavior, such as 'eating,' in terms of a mental state, such as 'being hungry,' was ad hoc, equivalent to the pre-scientific explanation of physical events in terms of vitalistic 'forces.' For example, if I explain why a glass breaks by referring to its fragility, I've really explained nothing at all—I've only explained breaking in terms of being likely to break. A genuine explanation of a glass's breaking is in terms of the environmental conditions and events immediately prior to the breaking of the glass. Likewise, explaining eating in terms of 'hunger' is hollow, repeating only the likelihood of eating behavior.

Throughout his career, Skinner argued that radical behaviorism alone was the scientific approach to psychology. Theories—including Hull's—cannot refer to underlying entities. When one objects that paradigmatic sciences like physics postulate unobservable underlying entities such as electrons, Skinner retorts that these are not believed by physics to really exist, but are merely convenient placeholders for the mathematical relationships that hold between observable entities.²⁰ A scientist must restrict his or her work to observation, not theorizing. In retrospective appraisal of his own work, Skinner would claim of his work in Behavior of Organisms:

The notes, data, and publications which I have examined do not show that I ever behaved in the manner of Man Thinking as described by John Stuart Mill or John Dewey or in reconstructions of scientific behavior by

²⁰ See, e.g. interview with Skinner, p. 39
of Baars.

other philosophers of science. I never faced a Problem which was more than the eternal problem of finding order. I never attacked a problem by constructing a Hypothesis. I never deduced Theorems or submitted them to Experimental Check. So far as I can see, I had no preconceived Mode of behavior—certainly not a physiological or mentalistic one and, I believe, not a conceptual one.” (1972, p. 112)

In the years following, Behaviorism came to utterly dominate American Psychology. By 1960, for example, the standard textbook for experimental psychology, Burton G. Andreas' *Experimental Psychology* could confidently assert:

Psychology seeks to express the laws of behavior. It makes the assumption that all aspects of behavior, like other natural phenomena, are dependent on the conditions under which the behavior occurs... Psychology seeks to describe the dependence of the activities of people or animals on their environments and states of being. Psychology's place is delineated by this particular goal and the specific techniques devised for striving toward it. Andreas 1960, p. 4

Concurrent developments: Logic and Computing

In 1812, George Boole (1815–1864) published *The Laws of Thought*, which is now regularly classified as a classic work in Logic. The opening paragraph, however, suggests a different discipline:

The design of the following treatise is to investigate the fundamental laws of those operations of the mind by which reasoning is performed; to give expression to them in the symbolic language of a Calculus, and upon this foundation to establish the science of Logic and construct its method; to make that method itself the basis of a general method for the application of the mathematical doctrine of Probabilities; and, finally, to collect from the various elements of truth brought to view in the course of these inquiries some probable intimations concerning the nature and constitution of the human mind. — *Laws of Thought* (1854) Ch1 Para1

Boole, like his predecessor David Hume, believed that the rules that regulate the human mind were simple, and complex ideas were structured out of simple ones in the same way complex theorems are constructed out of simple axioms via logical transformations.

The history of Logic is of great importance here because in 1950, a brilliant young logician named Alan Turing²¹ proposed a theoretical physical machine that would be capable of carrying out logical functions. That theoretical machine ultimately became the digital computer we know today.

He further proposed that such a machine could be taught to understand human language, and one could test the sophistication of that teaching by a simple empirical test, now known as the ‘Turing test.’ An interviewer would have a conversation with two individuals, one

²¹ You can read more about the life of Alan Turing, who is one of the greatest, yet least well known, scientists of the 20th century, in the section Brief History of Homosexuality.

human and one computer, for a period of time. If, after five minutes or so, the interviewer could not tell the difference between the two, we would be in a position of calling the machine a ‘thinking’ machine. Writing in 1950, Turing claims:

“I believe that in about fifty years’ time it will be possible, to programme computers, with a storage capacity of about 10⁹, to make them play the imitation game so well that an average interrogator will not have more than 70 per cent chance of making the right identification after five minutes of questioning.”

In short, Turing’s ideal machine would ‘respond to the sense of all that will be said in its presence, as even the dullest men can do.’ The challenge set by Descartes and dreamt about by Hobbes, Locke and Hume to create a physical device capable of using language in a productive and systematic way was to be met, at least, theoretically, by a machine, the digital computer.

The question that remains for you, in the course of this game, is whether or not Turing’s discovery of the logical functions that meet Descartes’ challenge in fact lead to, in Boole’s words “probable intimations concerning the nature and constitution of the human mind,” and whether or not those ‘probable intimations’ are scientific in nature.

The Second Revolution: Cognitive Science

In 1957, two books were published on the topic of language use by humans. As we have discussed, philosophers of mind have long considered language-use *the defining characteristic of humanity*—the behavior that distinguishes humans from animals and thinking from instinct. The empirical study of language-use therefore, has the potential to quantify, analyze and observe, with scientific reliability, what we are as thinking beings.

In the first, *Verbal Behavior*, B.F. Skinner explained humans’ language use in terms of operant conditioning. Verbal behavior is particularly interesting for the behaviorist because it isn’t directly reinforced by the world, but rather mediated by another person via his or her own verbal behavior. In fact, this unique feature comes to form Skinner’s definition of verbal behaviors: those behaviors that are ‘reinforced through the mediation of other persons’ (1957, p. 2). He later refines and restricts that definition thus: “If we make the further provision that the ‘listener’ must be responding in ways which have been conditioned precisely in order to reinforce the behavior of the speaker, we narrow our subject to what is traditionally recognized as the verbal field.” (p. 225) This definition, you’ll no doubt notice, makes no reference to vocalization, words, sentences, thoughts, phonemes, meanings, semantics, grammar, or anything else typically associated

with language-behavior.

The second was Noam Chomsky's first book, *Syntactic Structures*. Chomsky opens by noting that the set of all grammatical sentences in any given language, while infinite, is not random. There are sentences like 'Colorless green ideas sleep furiously' which may have never occurred in English before 1957, but nonetheless are grammatical sentences; while at the same time, there are sentences like 'Furiously sleep ideas green colorless' that are not grammatical. He then proposes that an adequate theory of language ought to describe a device that generates all and only the sentences that are grammatical in that language. Any theory that can't generate the set of grammatical sentences simply is not an adequate explanation of human language-behavior.

Central to Chomsky's theory is the thesis that humans differ from animals in their ability to use language. You'll remember from the beginning of this history that that view was shared by René Descartes and the Port-Royalists, who used it to argue for the distinction between the soul (mind) and the body. For Chomsky, however, the ability to use language does not entail a non-physical soul. Turing's machines showed that a physical entity can generate new and novel sentences that follow the grammatical structures. Verbal behavior, the defining feature of human psychology, is the ability to structure sentences in new and novel ways via the process of recursion, but that does not mean that human minds are non-physical entities.

Not only do the cognitivists reject the behaviorists' conjecture that one can explain human behavior without reference to internal states, they reject the behaviorists' rejection of the thesis that there is a dividing line between "man and brutes."

In 1959, Chomsky published a vitriolic review of Skinner's *Verbal Behavior*, in which he claimed that not only were Skinner's definitions of reinforcement and conditioning either confused or circular, he argues that empirically, children learn grammar at a higher rate than can be explained by operant conditioning. It is included in the appendix.

In the decade before these tumultuous years, the Macy foundation had sponsored series of conferences that introduced some of great early mathematicians and computer scientists including John von Neumann (father of most computer languages), Norbert Wiener (founder of cybernetics), Warren McCulloch and Walter Pitts (who together created a mathematical model of a neuron, which is the basis for all neural network architecture), Julian Bigelow and Arutuo Rosenblueth (also pioneering cyberneticists) to the great social scientists and psychologists of the day, including the anthropologist Margaret Mead, the Gestalt psychologist Wolfgang Köhler. The goal of these workshops was to investigate the similarities between computational

machines and human minds and social structures. Behaviorists almost never attended. While the results from these conferences were minimal, they set the stage for MIT's Second Symposium on Information theory, September 10–12 1956, that forever changed forever the face of psychology.

At that conference, Alan Newell and Herbert Simon, computer scientists from Carnegie-Melon, presented a simple machine that could do logic proofs and Noam Chomsky presented his idea of a transformative-generative grammar as the basis of language. George Miller writes, in an unpublished paper presented at MIT and repeatedly cited by historians of cognitive science, that he came away from the conference with a sense “more intuitive than rational, that human experimental psychology, theoretical linguistics, and the computer simulation of the cognitive process were all the pieces from a larger whole, and that the future would see a progressive elaboration and coordination of their shared concerns.” Miller recalls Newell telling him “Chomsky was developing exactly the same kind of ideas for language that he and Herb Simon were developing for theorem-proving.”

Miller 1979

And so began “the Cognitive Revolution.”

2.3 *Brief History of the Study of Homosexuality in America*

While homosexual behavior has appeared throughout human history, the notion of homosexuality as an “orientation” or “personality” is relatively recent. The etymology of the word ‘homosexual’ itself shows the intimate connection between the idea of sexual orientation and the history of psychiatry. According to the OED, the term first appears in print in English in C. G. Chaddock translation of R. von Krafft-Ebing 1892 *Psychopathia Sexualis*. Relevant sections are reproduced in Appendix B on page 194.

The idea of homosexuality as a lifestyle connected to personality is, in the English speaking world at least, indelibly linked to the public persona of the author Oscar Wilde. While he was studying classics at Oxford, he began advocating aestheticism, the view that aesthetic values trump moral or social values in the understanding of art and literature. Wilde parlayed his success as a playwright into fame, cultivating a flamboyant public personal, known for dressing immaculately and flamboyantly, entertaining wealthy society women and having a sharp wit and his talent at dinner conversation. His masterwork ‘The Portrait of Dorian Gray’ plays with this persona in the characters of XX and Gray himself.

In 1895, he and his companion Alfred Taylor were convicted of acts of ‘gross indecency’²² and sentenced to two years hard labor. Their

²² In Victorian England, ‘gross indecency’ was defined as sexual acts between men that did not rise to the level of ‘buggery’.

trial was ‘the trial of the century’ in the English upper-class, and to this day, many of Wilde’s personal characteristics inform the common stereotypes of homosexual men, for example, fastidiousness with respect to personal appearance, extraordinary wittiness and social adeptness, esp. with upper-class women, are all traceable to Wilde himself.

The next fifty years were not kind to gay folks. “Treatments” for homosexuals included surgical interventions such as castration, vasectomies, lobotomies, sterilization, clitoridectomies, hysterectomies; chemical interventions such as sexual stimulants, depressants, hormonal injections, and pharmacological shock; psychological interventions included adjustment therapy, psychoanalysis, hypnosis, aversion therapy that included electric shock and desensitization;²³ and social psychological interventions patterned on Alcoholics Anonymous like ‘Homosexuals Anonymous’ and others.

One of the saddest stories of this era is that of Alan Turing, who was mentioned in the section above on 2.2 on page 44. Turing was one of the greatest mathematicians and logicians of his era, if not the greatest. During WWII, he worked at Bletchley park as one of Churchill’s famed code-breakers. His efforts in breaking the German codes lead directly to the development of modern logic and the invention of the electronic computer. He is generally considered to be the founder of both modern cryptography and computer science. While working at Princeton, he became friends with Claude Shannon, who is now recognized as the father of information theory. Quite literally, Turing is to the contemporary information age what Newton was to the age of mechanics, or Einstein the nuclear age.

But Turing was also gay. In 1952, he was prosecuted and convicted for being a homosexual. Sentenced to hormone therapy and stripped of his military clearance (remember, during WWII, he was directly responsible for breaking the German code, created the encryption for the Washington-DC phone line, and was privy to the highest secrets of the war), he committed suicide on June 7th, 1954. In 2009, the British Government started a program of accepting online petitions from citizens of the UK. One of the first to be submitted, and promoted by Richard Dawkins, was a call for an official apology to Alan Turing for unjust prosecution. On 10 September 2009, Prime Minister Gordon Brown issued a formal apology to Alan Turing, stating:

It is thanks to men and women who were totally committed to fighting fascism, people like Alan Turing, that the horrors of the Holocaust and of total war are part of Europe’s history and not Europe’s present. So on behalf of the British government, and all those who live freely thanks to Alan’s work I am very proud to say: we’re sorry, you deserved so much better.²⁴

²³ There is a superb website in the UK that is collecting stories of patients, doctors and nurses from this era. All are deeply disturbing, some downright terrifying. See <http://treatmenthomosexuality.co.uk/>. I’ll quote just one example here, as it so perfectly illustrates classical conditioning: “We need to remember that the discussions that went on at Maudsley in the early 50s were constantly searching for ways in which we could understand the relationship between events, so again referring to the ideas put forward by Pavlov, Skinner and Wolpe, if a situation produces anxiety and at the same time there is another even occurring then by the process of conditioning it’s quite likely that the reaction of anxiety will become associated with the unconditioned stimulus. By thinking along those lines it seemed to me that if the process of sexual arousal and gratification is linked with something, it may well become the preferred method of seeking gratification. It seemed to me that if a person wanted to stop being involved in and interested in male figures—so long as he had bisexual potential or interests—we might be able to utilize the other half of the spectrum of potential arousal signals. And, if we did that often enough, he then might be gratified by femininity.” From ‘A Psychological Career’, anonymous testimonial from <http://www.treatmenthomosexuality.co.uk/>.

²⁴ For the full statement, see <http://www.number10.gov.uk/Page20571>

During this dark period of persecution, advocates for homosexuals (at this time called 'homophile' organizations) focused primarily on changing the stereotypes of the homosexual as a step towards ending the criminalization of homosexual acts as well as the psychological and medical 'treatments.' There was little activity within the scientific and academic communities on the issue.

That all started to change when a young social psychologist named Evelyn Hooker started teaching at UCLA.

During WWII, young men and women who were accused of homosexuality in Pacific theater of operations tended to be discharged from the military in California ports, including San Diego, Long Beach and San Francisco. Many, if not most, of these young people could not return to their hometowns because of their dishonorable discharge from the military. As a result, an organic community of homosexuals began taking shape in many of these cities.

While teaching at UCLA, Hooker became friends with one of her graduate students, Sam Fromm. Sam was gay. In 1943, he challenged her to study 'people like him' to determine if they were mentally ill (specifically 'neurotic') independently of the biases against homosexuality inherent in the psychiatric tradition.²⁵ In a 1998 interview, Hooker explained the significance of this phrase:

"This bright young man, somewhere in his early thirties, had obviously been thinking about this for a long time. And by 'people like us' he meant, 'We're homosexual, but we don't need psychiatrists. We don't need psychologists. We're not insane. We're not any of those things they say we are.' (Eric Marcus, WindyCityTimes-current.pdf, October 31, 2007 • vol 23 no 07)

During the 1940s, Evelyn Hooker became a trusted 'outsider' of the gay community in L.A., but didn't want to conduct research on people she saw as her friends.

The Kinsey Report

In 1948, Alfred C. Kinsey (b. 1894 – d. August 25, 1956) published *Sexual Behavior in the Human Male*. It was revolutionary.

Kinsey and his assistants had interviewed 5,300 white males from all walks of American life. The interviews required up to 521 questions, depending on the interviewee's experiences. Kinsey reported that a large number of men—up to 45%—reported having at least one homosexual encounter during his adolescence. These encounters are most frequent at young age, dropping to a stable 10% of the population by age 20–25. These numbers, Kinsey fears, may not tell the whole story because:

The social significance of the homosexual is considerably emphasized

²⁵ You'll recall that Freud and the psychoanalytic tradition that followed him believed homosexuality was a regression fixation caused by an underlying, probably narcissistic, neurosis. See *Introductory Lectures* p. 376–384 and 529–531

by the fact that both Jewish and Christian churches have considered this aspect of human sexuality to be abnormal and immoral. ... Social custom and our Anglo-American law are sometimes very severe in penalizing one who is discovered to have had homosexual relations. In consequence, many persons who have had such experiences are psychically disturbed, and not a few of them have been in open conflict with the social organization. Kinsey, Pomeroy, and Martin 1998, p. 610

The Kinsey report found that homosexual activity as a common part of male sexual development. Self-identifying as a homosexual, or engaging exclusively in homosexual activity, was found to be more rare. But at 10%, it was almost twice as high as any previous scientific estimate²⁶. Almost as importantly, Kinsey identified the source of psychic disturbance *not* to be the homosexual activity itself, but the social structures that penalize such behavior.

Early 'Homophile' movements

Two years after the publication of the Kinsey report, a group of 'homophile' activists founded the Mattachine society, which is now generally recognized as the first national gay-rights organization.²⁷

The Mattachine society, named for a European tradition of theater masks, sought to change the prevailing view of homosexuality by presenting the membership as no different than the mainstream heterosexual society. Its members dressed in suits and skirts, and showed no 'outward signs' of homosexuality. These 'outward signs' are, of course, those stereotypes we identified earlier as originating with Oscar Wilde. Mattachine society demonstrations—held annually in front of Independence Hall in Philadelphia on July 4th—were sober affairs of men in gray suits and women in dresses walking up and down in straight lines, conspicuously *not* holding hands or being affectionate to one another. When couples held hands, one of the leaders of the Mattachine society, Frank Kameny, famously scolded "None of that!" See the "Rules for Picketting" published by the Mattachine Society in Figure 2.4

At the same time, a secret social club for Lesbians called The Daughters of Bilitis was founded in San Francisco by Del Martin and Phyllis Lyon. To stay in touch with its members they created a magazine called 'The Ladder', which came under the editorship of Barbara Gittings in 1963. The magazine flourished under Gittings' direction, growing from a simple hand-stapled newsletter to a true 40-page magazine. Gittings became a leader, along with Frank Kameny, of the Mattachine society.

²⁶ The often repeated statistic that 10% of any given population is gay or lesbian originates with Kinsey's study.



Figure 2.2: 'Homophile' activists picketing in 1965. From <http://bilerico.lgbtqnation.com/>

²⁷ The 'Society for Human Rights' was founded in 1924, but never gained national prominence.

Connecting these threads: Evelyn Hooker

After the publication of the Kinsey report, Hooker finally decided to meet Fromm's challenge. She designed an experiment to determine if homosexuals were mentally disturbed. In 1954, she received a grant from the National Institute on Mental Health to run her study. She recruited 30 homosexuals from the Mattachine society as well as the gay community generally. An equal number of heterosexual men were recruited from civil organizations around the L.A.. Individuals in the groups were matched with respect to age, IQ and education level. All people currently in therapy for mental health were excluded from the study.

This alone was a major step forward in the study of male homosexuality, as all previous psychological studies had found their subjects in psychiatric wards, army barracks or clinical settings. By studying only those already in psychiatric treatment, one cannot separate traits that may signify an underlying condition from traits that result from the psychiatric treatment itself.

Hooker tested the resulting 60 men using standard psychological tests: the Rorschach, Thematic Apperception Test (TAT) and the Make-A-Picture-Story Test (MAPS). The data was blinded and mixed, and then sent to psychologists with expertise on these the tests who were instructed to score them normally and return the scores. Hooker found no significant difference between the 30 homosexual and 30 heterosexual males with respect to standard tests for mental disturbances, indicating that homosexual men were no more likely to be neurotic than equivalent heterosexual men.

Hooker presented her findings at the 1956 APA in Chicago. Her paper was published in 1957,²⁸ shortly after Sam Fromm's death in a car accident. For more on Evelyn Hooker, see Aldrich and Wotherspoon 2005

Stonewall: The street activists

By the 1960s, tensions were growing in the gay community. Another group of younger gay²⁹ activists were growing irritated with both the slow progress of the Mattachine society and its restrictions on behavior. In 1968, a group of young 'street-activists' disrupted a meeting of the American Medical Association in New York by shouting down Charles Socarides, a Psychiatrist known for his psychoanalytic treatment of homosexuals.

But everything changed forever on Saturday, June 28, 1969 at 1:20 AM, when the police raided the Stonewall Inn in Greenwich Village. These raids were common—the police would arrest everyone, roughing people up, and generally intimidating the population. But this

PENALTIES FOR SEX OFFENSES IN THE UNITED STATES - 1964				
STATE	OFFENSE*	PUNISHMENT	ADDITIONAL	CONSEQUENCE
ALABAMA	2-10 yrs.	\$100 to 7 yrs. or both	\$100 to 7 yrs. or both	
ALASKA	3-10 yrs.	\$100 or 2 years or both	\$100 or 3 mos.	
ARIZONA	5-10 yrs.		3 yrs.	3 yrs.
ARKANSAS	1-11 yrs.		\$20-\$100***	
CALIFORNIA	1 yrs. to 7 yrs.		\$1000 or 1 yrs. or both	
CONNECTICUT	1-10 years	\$1000 or 6 mos.****	\$200 or 6 mos.****	
DELAWARE	1-10 yrs. or both	\$1000 or 6 mos. or both	3 yrs.	
FLORIDA	\$1000 and 5 yrs.	\$1000 1 yr.or both		
GEORGIA	\$1000 or 10 yrs.	\$1000 & 5 yrs. or both	5 yrs.	
HAWAII	10 yrs.	\$1000 or 5 mos.		
IDAHO	1-10 yrs., 2nd conviction or both	\$1000 or 12 mos. or both	\$1000 or 2 yrs. or both	
ILLINOIS	\$1000 and 20 yrs.	\$100-500 or 1-3 yrs. or both	\$100-1000 or 2 mos.-2 yrs.	\$100 or 6 mos. or both
INDIANA	5 yrs. to 7 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
KANSAS	10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
KENTUCKY	2-5 yrs.	\$200-50	\$200-50	
Louisiana	\$1000 or 5 yrs.			\$1000 or 1 yrs. or both
Maine	10 yrs.	\$1000 or 2 mos.	\$1000 or 5 yrs.	
MARYLAND	1-10 yrs.	\$1000 or 6 mos.		\$1000 or 5 yrs.
MASSACHUSETTS	1-20 yrs.	\$1000 or 5 yrs.		\$1000 or 3 yrs. or both
MISSOURI	15 yrs.	\$1000 or 5 yrs.		
MINNESOTA	20 yrs.	\$1000 or 5 yrs.		
MISSISSIPPI	10 yrs.	\$1000 or 6 mos.		\$2000 and 6 mos.
MISSOURI	5 yrs. to ?	\$1000 or 1 yrs. or both	\$1000 or 1 yrs. or both	

PENALTIES FOR SEX OFFENSES IN THE UNITED STATES - 1964				
STATE	OFFENSE*	PUNISHMENT	ADDITIONAL	CONSEQUENCE
ALABAMA	5 yrs. to 7 yrs.	\$100 or 6 mos. or both	\$100 or 6 mos. or both	
ARIZONA	20 yrs.	\$1000 or 6 mos. or both		
ARKANSAS	1-20 yrs.	\$1000 or 6 mos. or both	\$1000-1000 or 6 mos.1 yr.or both	
CONNECTICUT	10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
DELAWARE	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
FLORIDA	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
GEORGIA	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
HAWAII	10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
IDAHO	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
ILLINOIS	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
INDIANA	1-10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
KANSAS	10 yrs.	\$1000 or 6 mos. or both	\$1000 or 6 mos. or both	
KENTUCKY	2-5 yrs.	\$200-50	\$200-50	
Louisiana	\$1000 or 5 yrs.			\$1000 or 1 yrs. or both
Maine	10 yrs.	\$1000 or 2 mos.	\$1000 or 5 yrs.	
MARYLAND	1-10 yrs.	\$1000 or 6 mos.		\$1000 or 5 yrs.
MASSACHUSETTS	1-20 yrs.	\$1000 or 5 yrs.		\$1000 or 3 yrs. or both
MISSOURI	15 yrs.	\$1000 or 5 yrs.		
MINNESOTA	20 yrs.	\$1000 or 5 yrs.		
MISSISSIPPI	10 yrs.	\$1000 or 6 mos.		\$2000 and 6 mos.
MISSOURI	5 yrs. to ?	\$1000 or 1 yrs. or both	\$1000 or 1 yrs. or both	

*Sex acts referred to as "any sex against nature, including a wide variety of unnatural sexual activity, with animals or with another person of either sex, both in public and outside of marriage."

**A "felony" is defined as 1 year or more of imprisonment.

***Penalty for 1st to 10 yrs. for 2nd conviction; 10-3 yrs. for third conviction.

****Penalty for 1st to 10 yrs. for 2nd conviction; 10-3 yrs. for third conviction, and so on.

**Penalty for sale only; for female, penalty is less \$10 to \$10 or 1-3 yrs.

PAMPHLET SOCIETY INC., OF NEW YORK, 3125 BROADWAY, NEW YORK, NEW YORK, 10010 (JTF)

Figure 2.3: 'Penalties for Sex Offenses', a Pamphlet distributed by the Mattachine Society in 1964 to educate its members. From <http://web-static.nypl.org/exhibitions/1969/ref/1696842.html>

²⁸ Hooker, Evelyn. "The Adjustment of the Male Overt Homosexual." *Journal of Projective Techniques* 21(1957): 18–31.

²⁹ The use of the word 'gay' as a replacement for 'homosexual' dates from precisely this time with precisely these people. The Mattachine society and the older organizations used 'homosexual' and 'homophile' to refer to themselves. Ironically, the use of 'Gay' to mean 'homosexual' is no attributed to Frank Kameny himself, who started a "Gay is good" campaign in 1968, to parallel the "Black is beautiful" campaign.

time, the gay and lesbian patrons of the Stonewall resisted. Events escalated. The riots that followed lasted until Wednesday night, July 3rd.

On July 4th, the gay community's attention turned to Independence Hall in Philadelphia and the Mattachine society's annual march. As usual, Frank Kameny and Barbara Gittings, long time leaders of that gay and lesbian advocacy group, required the women to wear skirts and men suits. But the tide had turned. The young protestors from Stonewall would not conform. Kameny's approach of assimilation to "straight" behavior had been surpassed by the direct action begun at Stonewall. Militant groups such as the Gay Liberation Front and the Gay Activist Alliance sprouted up overnight (both started in New York). Plans were made to confront those who continued to classify homosexuality as a mental disorder, and directly challenge those who continued to treat homosexuals using barbaric methods.

Those plans included San Francisco, site of the 1970 American Psychiatric Association's annual convention. And you already know what happened there. (See <-\fullref{prologue}-> if you need a refresher).

2.4 Brief History of "mental illness"

What makes a certain condition a 'mental' condition or a 'medical' or 'neurological' condition? Suppose you are a family doctor, and a patient presents with an unwelcome and unwanted problem—a twitch, perhaps. Do you call a psychiatrist or a neurologist? How do you know?

While behaviors associated with mental illness—hallucinations, catatonic states, mania, etc.—have been known since ancient times, psychiatry dates its regularization as a scientific discipline to the work of the French physician Philippe Pinel. His *Traité médico-philosophique sur l'aliénation mentale; ou la manie* stands as the first attempt at a scientific classification of mental illness. The book, translated as *Treatise on Insanity* in 1806 by D.D. Davis, is excerpted in Appendix A on page 191.

Pinel was an intellectual disciple of Étienne Bonnot de Condillac, who in turn, was a disciple of John Locke.³⁰ Locke is most well known as the intellectual progenitor of the American Constitution, but his views on the nature of mind and the empirical basis of knowledge held sway over much of the Western intellectual world in the first half of the 19th century. Locke's influence on Condillac and hence Pinel was two-fold: first, he held that all our ideas originate in sensation and reflection. Second, and as importantly, Locke followed Francis Bacon in teaching that all knowledge must be based on careful, sys-

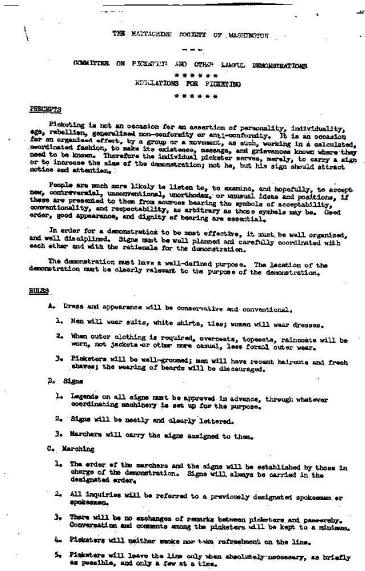


Figure 2.4: Rules for Picketing.
From the Kameny papers website:
<http://www.kamenypapers.org/memorabilia.htm>, collected 7/14/2016

³⁰ See, e.g. *Treatise on Insanity*, p. 46

tematic observation.

For the empiricists, it follows that insanity, which is a severe form of our ideas ‘leading us astray’, is explained by an incorrect connection and association of ideas. The mechanism is simple: some of our ideas have a natural affinity or connection with one another. Others are held together by mere custom or habit. Cases of insanity are cases where habitual associations become so disorganized they begin to effect the ‘natural’ associations. This misassociation can become so extreme that it can “set us awry in our actions, as well moral as natural, passions, reasonings, and notions themselves” Locke 1959, Bk 2, Ch 33, p9. Pg. 531. To this day, we use metaphors like ‘lost his senses’ to describe someone with mental illness; and we describe poorly chosen actions as ‘not very sensible.’

This is simply the theoretical basis for understanding insanity in the broadest possible terms. To truly understand how mental disorder is defined and classified, we must consider how the mentally ill have been treated.

Foundations

Foundation in Empiricism: Phillippe Pinel

Phillipe Pinel (1745–1826) revolutionized the treatment of the insane. When, in 1792, he was appointed a physician at the main asylum in Paris—the Bicêtre hospital—the situation was dire. According to a biographer in 1846:

The buildings were unfit for habitation. In them were congregated men crouching together in the mud, in stone cells, narrow, cold, damp, destitute of air and light, and merely furnished with a straw bed, seldom renewed, and soon becoming foul and offensive; wretched dens, in which one would hesitate to place the meanest animal. The insane, who were immured in these filthy holes, were at the mercy of their attendants, and these persons were malefactors released from prison. The wretched patients were loaded with chains and manacled like convicts. Thus given up defenseless to the wickedness of their guardians, they were the sports of an insulting mockery, or of a brutality all the more blind that it was gratuitous. Marx 1847, p. 194–195

Upon his arrival, Pinel immediately began advocating pity, respect, and compassion for the patients,³¹ not only for humanitarian reasons, but also in order to allow the Baconian method of careful observation. Given the terrible conditions at the Bicêtre, Pines argued, one would never be able to determine if the behavior of the patients was the result of some underlying condition, or the condition of the Hospital itself. Bicêtre’s chief physician, Pussin, was sympathetic to Pinel’s techniques, and began a pilot study of unchaining the patients.

³¹ The story of how Pinel became interested in insanity is frequently retold. Like Newton’s apple, it is probably something of a myth, although there may be some core of truth. Here it is, as told by himself in *A Treatise on Insanity*: The loss of a friend, who became insane through excessive love of glory, in 1783, and the ineptitude of pharmaceutic preparations to the mind elated, as his was, with a high sense of its independence, enhanced my admiration of the judicious precepts of the ancients, and made me regret that I had it not then in my power to put them in practice. (p 52) From a letter by Marx 1846: ...in 1785, he had the misfortune to lose a young man to whom he was much attached, and whose reason became affected through excessive study and abstinence. This unfortunate person, after his return to his family, became maniacal, one evening he escaped from his father’s house into the neighboring forest and was devoured by wolves; a few torn rags were found the following day, and near them a copy of the *Phaedra* covered with blood. And by Lisa Appignanesi in 2009: A shy provincial like himself, the friend had fallen into despair and then ‘mania’ when his legal aspirations failed to materialize. Unable to help the younger man once he had all but ceased to eat, Pinel had brought him to the Hôtel-Dieu where a treatment of baths and food seemed to restore him. But his worried family intervened and took him home before he was quite well. The youth escaped their hold, fled to the woods and was found dead only after the wolves had got him. Marx 1847, p. 58

Two years later, Pinel was appointed chief physician of the Hôpital de la Salpêtrière—Paris' parallel institution for women. There, the women were kept chained, often naked, in subterranean cells; subjected to the terrors of abusive guards and hungry rats. Pinel immediate banned the use of metal chains as restraints, allowed the women clothing, and established something resembling human civility.³² This act was mythologized during the French Revolution as part of the overthrow of the aristocratic order, and has been duly commemorated in Art.³³

Pinel's revolutionary kindness is not just a story of a sympathetic humanitarian. Pinel's goal was to systematical classify mental illness in the Baconian manner. The conditions of confinement found in the Bicêtre and the Salpêtrière compounded the patients' mental illness, and confounded his attempts at observation. In these conditions, one could not determine if the regularity of symptoms found in the population resulted from the illness or the 'treatment.' By providing the patients respect and dignity, he believed he could observe their mental illness in a more untainted form.

In general, Pinel followed Locke and Condillac in holding that insanity was 'derangement of the understanding'³⁴, yet extended the view to cover cases where memory, understanding and judgment were perfectly sound, and still the patient was maniacal.

Pinel thus abandoned any formal all-encompassing theoretical explanation of insanity per se, especially that which originated in Ancient Greek thought. The Greeks, he reasoned, were wrong about how the human brain functions, as we now understood. And as their system was based on their mistaken physiology, it is unreliable.

Instead, Pinel explicitly bases his system on "the numerous and important facts which have been discovered and detailed by modern pneumatologists" Pinel 1806, p. 135

³² From a letter of honor, included in Marx 1846: "He who walks in an odiferous flower-garden, which had formerly been a pestilential swamp, will best be able to appreciate what you effected in madhouses. Formerly an atmosphere almost stifling, damp rooms, the clank of chains, the cries of those under the lash, the hoarse growl of the rough attendants, the desperate frenzy of the ill-used patients; these succeeded by clean apartments, the greatest humanity in personal attentions, and an atmosphere of peace and confidence throughout the whole establishment. Marx 1847, p. 210

³³ See Robert Fleury's 'Dr. Philippe Pinel at the Salpêtrière' (1795)

³⁴ See, e.g p. 3, Section 4, p 134. Also, from the Marx (1846): Every delusion is the result of confused modes of thinking; wrong and crime originate in ignorance." Marx 1847, p. 212

Name	Presentation and Specific Character
Melancholia or delirium upon one subject exclusively	<p>Presentation: taciturnity, a thoughtful pensive air, gloomy suspicions, and a love of solitude. (§54)</p> <p>Specific characterization: no propensity to acts of violence, independent of such as may be expressed by a predominant and chimerical idea: free exercise in other respects of all the faculties of the understanding: in some cases, equanimity of disposition, or a state of unruffled satisfaction: in others, habitual depression and anxiety, and frequently moroseness of character amounting even to the most decided misanthropy, and some times to an invincible disgust with life.(§59)</p>

Mania without delirium	Presentation: no period do they give evidence of any lesion of the understanding, but are under the dominion of instinctive and abstract fury(§60) May be continued or intermittent. No sensible change in the functions of the understanding ; but perversion of the active faculties, marked by an abstract and sanguinary fury, with a blind propensity to acts of violence. (§64)
Mania with delirium	Presentation: faculties may be excited by intense or vehement passions, but exalted and furious enthusiasm, or whatever strong emotions that may originate in fanaticism or chimerical delusion.(§60) May be continued or intermittent, with regular or irregular returns of the paroxysms. It is distinguished, both in respect to the functions of mind as well as those of the body, by a strong nervous excitement; and marked by the lesion of one or more of the functions of the understanding, accompanied by emotions of gaiety, of despondence or of fury.(§67)
Dementia, or the abolition of the thinking faculty	Presentation: extreme volatility, thoughtless absence, extravagant improprieties, and wild eccentricities(§68) Rapid succession or uninterrupted alternation of insulated ideas, and evanescent and unconnected emotions. Continually repeated acts of extravagance: complete forgetfulness of every previous state: diminished sensibility to external impressions: abolition of the faculty of judgement: perpetual activity.(§67)
Ideotism	Presentation: partial or total abolition of the intellectual and active faculties.(§72) Total or partial obliteration of the intellectual powers and affections: universal torpor: detached, half articulated sounds; or entire absence of speech from want of ideas: in some cases, transient and unmeaning gusts of passion.(§76)

Table 2.2: Pinel's classification system

Pinel spent a great amount of time showing that the conditions he was treating did not have a physiological basis. Much of his argumentation in Treatise on Insanity turns on the dissections performed on patients who had died while at the Bicêtre. The reason for this was two-fold: first, the ancient Aristotelian understanding of the mind held that mental illness resulted from too much or too little of one of the four main 'humours': black bile, yellow bile, blood and phlegm.³⁵ By showing that the mentally ill had no significant lesions in the brain, or imbalances in their 'fluids', Pinel was able to establish the independence of psychiatry from other forms of medicine.

Secondly, there is a long tradition of defining the 'mental' as that

³⁵ Each humour had an associated personality type. Imbalance in a given humour was thought to be the cause of imbalances in mood or personality: people with too much black bile were melancholic, yellow bile choleric (full of energy), blood sanguine (impulsive), and phlegm phlegmatic (emotional). See Aristotle's Problems Bk 3, Section 1 Galen's *De temperamentis*, and Avicenna's *The Canon of Medicine* for more detail.

which is opposed to the ‘physical’. For example, René Descartes famously argues that the actions of our bodies can be explained entirely in physical, mechanistic terms, except that which can be attributed to, in his terms, our ‘souls.’ It follows then, that if an illness is to be truly mental, it must not have a physical explanation. And most importantly, physical causes are treated with physical interventions. As insanity was now deemed non-physical, the treatment cannot be physical. Hence, psychiatry is a discipline independent from physical medicine.

While Pinel had no strong theoretical commitment or agenda, by following Locke’s notion of mental illness as a confusion of ideas, he made two significant contributions to both psychiatry as a medical discipline and our understanding of the mind more broadly: First, if insanity was just a misassociation of ideas, it was not a permanent, inherited incurable disease. Second, if insanity is a misassociation of ideas, it does not depend on or result from physiological changes. Explanations for mental illness thus did not require autopsy; and treatment did not require surgery.³⁶ Psychiatry was, as a result, independent of medicine.

It is likewise important to recognize that Pinel was, in many ways, precisely following Bacon’s system of investigation. He was not attempting to form an overarching explanation. He was setting down tables upon tables of observed facts, classifying and arranging phenomena, highlighting privileged instances, and was open to any and all techniques that might shed light on these cases. After initial observation, he split “insanity” into four varieties, distinguishing between the incurable dementia and idiocy from the often transient and curable mania and melancholy.

Therapeutically, Pinel called his humane treatment of the insane the ‘moral treatment.’ In his words,

I then discovered, that insanity was curable in many instances, by mildness of treatment and attention to the state of the mind exclusively, and when coercion was indispensable, that it might be very effectually applied without corporal indignity. (p. 108).

His therapeutic program meant paying attention to the environment in which the insane were confined. He changed the architecture, the diet, the way the nurses and orderlies treated the patients, everything. He even went so far as to allow the higher-functioning patients to work as nurses for the lower-functioning. Patients were listened to. Careful, detailed personal histories were taken. Baths, walking and gardening were encouraged.

A lack of theoretical commitment meant that Pinel could borrow techniques from the many snake-oil salesmen and charlatans who populated Western Europe at the time. One of these fads happened

³⁶ The modern reader of *A Treatise on Insanity* is impressed by the number of times that Pinel stresses these two features of mental illness. We take both of these for granted to such an extent that the work can seem highly repetitive and redundant. But they were radical theses in the late 18th century, and Pinel’s thoroughness in covering the topics no doubt reflects the importance of these thesis in his own mind. (Cite Data – number of pages, examples, etc.).

to be mesmerism, now known as hypnosis. We'll come back to the importance of mesmerism in the rise of psychoanalysis below.

As a follower of Bacon, Pinel was only interested tabulating observations of results, and comparing them against the observations of the condition without intervention. He insisted that we cannot cure a disease until we know of the progression of the disease *without* intervention. In his own words, "We cannot cure diseases by the resources of art, if not previously acquainted with their terminations, when left to the unassisted efforts of nature." (p. 109). For him, extreme treatments could only be used in extreme cases. The curable would be cured by simple humane treatment.

It is worth pointing out that the word 'asylum' means, of course, a sanctuary or refuge. It *first* appears in English in the 1808 translation of Pinel's *Treatise on Insanity*, to reference the Bicêtre. It appears in English newspapers starting in the 1860's, to describe leper colonies—long after Pinel's 'moral treatment' had come to dominate the English treatment of the mentally ill.

Mental Alienation - Esquirol

While Pinel tended to think of transient mental illness as a confusion of ideas, he occasionally spoke of the role of passions in mental illness. In the early pages of the Treatise, he hypothesizes three different causes of insanity:

I now proceed to describe the general progress of periodical insanity. Among its various causes; exclusive of changes in the state of the atmosphere, my experience leads me to enumerate as the most frequent; undue indulgence of the angry passions; any circumstances calculated to suggest the recollection of the original exciting cause of the disease, intemperance in drinking, inanition, &c. Pinel 1806, p. 12

Pinel's greatest student, Esquirol built on this hypothesis of 'undue indulgence of the angry passions' and redefined the notion of transient insanity as 'mental alienation.' It was Esquirol who grew the empirical understanding of the mind into a full-fledged psychiatric system. But like Pinel, the set of conditions he sought to explain were those with symptoms that were not obviously explained by physical, bodily conditions.

Esquirol split Pinel's 'Melancholia' (see 2.2 on page 55, into 'monomania,' or obsession with a single idea, and 'lypemania.' The latter he renamed partially because the 'melancholia' implied the medieval theory of 'humors' and 'black bile,' which Pinel specifically wanted to banish.

Monomania, lypemania and mania were distinguished by the nature of the passions that are out of order: "The passions of the insane

are impetuous, especially in mania and monomania. They are of a depressing character in lypemania. In dementia and imbecility, those only exist, which spring from the first wants of man,—love, anger, jealousy." Esquirol and Hunt 1845, p 26

As the curable, transient forms of insanity were diseases of mal-formed passions, their treatment required reforming or redirecting the passions. His five varieties of insanity are defined thus:

1. Lypemania (melancholy of the ancients) delirium with respect to one, or a small number of objects, with predominance of a sorrowful and depressing passion.
2. Monomania, in which the delirium is limited to one or a small number of objects, with excitement, and predominance of a gay, and expansive passion.
3. Mania, in which the delirium extends to all kinds of objects, and is accompanied by excitement.
4. Dementia, in which the insensate utter folly, because the organs of thought have lost their energy, and the strength requisite to fulfill their functions.
5. Imbecility, or idiocy, in which the conformation of the organs has never been such, that those who are thus afflicted, could reason justly. Esquirol and Hunt 1845, p. 29

It is important to note here that the passions *accompany* delirium with respect to collections of objects. One cannot be passionate without being passionate about something. The 'something' that is the object of passion is supplied by the senses—and hence, we're still within a Lockean framework of understanding the mind.

According to the Lockean framework, all ideas originate in sense experience or internal reflection. When the passions directed at one of these ideas becomes excessive and out of control, lypemania or monomania results, depending on the nature of the particular passion that becomes excessive. When the passions are exaggerated without a specific object, and hence apply themselves to every object, or whatever object is before the senses at a particular moment, we call that mania.

Mental illness's causes "are as numerous as its forms are varied." Case studies presented in his Mental Maladies include climate, seasons, age, sex, temperament, trauma (especially during the first menstrual cycle for young women), excessive study, ambition, etc. Again, as in Pinel, the difference between the mentally ill and the mentally stable is one of scale, not of kind. Everyone has passions—they are why we grieve, fall in love, work for that 'A', make personal sacrifices

for our friends and families, etc.—the question of insanity is whether these passions are appropriate or excessive and whether they are directed at an appropriate or inappropriate object.

According to Esquirol:

"The first wants of man, limiting themselves to those connected with his preservation and reproduction, provoke the determinations of instinct; an internal impulse leads us to gratify them.

The secondary wants, attach themselves to the first, and the desires which they excite, acquire as much more energy, as we have means of satisfying them. They produce the primitive passions; in fine, they are the wants which are connected with our preservation; and are the fruit of our increasing intelligence and civilization. They engender the factitious passions,—those passions which cause the greatest injury to man, especially in the higher walks of life.

Infancy, except from the influence of the passions, is almost a stranger to insanity; but at the epoch of puberty, the sentiments, unknown until this period, cause new wants to arise. Insanity then appears, to trouble the first moments of the moral existence of man. At mature age, the relations become extended, social wants multiple and the passions take a new character. In proportion as the amorous passions become enfeebled, those of a factitious nature grow strong. Personal interest, ambition, love of distinction and avarice, replace the charms of love and delights of paternity.

At this period of life also, mental alienation appears; insanity is more obstinate, and more concentrated. It passes more readily into a chronic state; and is more dependent upon abdominal lesions.

A sense of his weakness, renders the old man more clam; and while meditating upon the errors to which the passions lead, he isolates himself, and becomes an egotist.

Insanity from a moral cause, rarely exists with him, and when he loses his reason, it is because his organs are fatigued and exhausted. Hence, it is neither mania nor monomania which is developed, at this period, but senile dementia.

Of all moral causes, those which most frequently produce insanity, are pride, fear, fright, ambition, reverses of fortune, and domestic trouble. This last should have been placed, relative to its great influence, at the head of the moral causes, if it be limited to a simple ideas; but by domesticate troubles, I express all the pains, all the griefs, all oppositions, misfortunes and dissensions that grow out of the family state. Esquirol and Hunt 1845, P. 45–46

Esquirol began to gather around himself a 'circle' of students who are sometimes referred to as the 'mental alienists.' Two of the most famous of his students were Charles Lasègue, who is now credited with working out the first definition of hysteria and first documenting *anorexia nervosa*; and Étienne-Jean Georget who delineated four sub-types of 'monomania': theomania (religious obsession), ertomania

(sexual obsession), demonomania (obsession with evil) and homicidal monomania.

Esquirol's concept of monomania sparked what is probably the first recorded wave of copy-cat psychosis. In November 1825, a young single mother of two named Henriette Cornier, decapitated the 19 month-old child of her neighbors. She had prepared her room for the act, even placing a bucket to catch the blood. She had known the family of the infant for only ten days, and had, up until this event, been nothing but loving and gentle towards the little girl who would be her victim. When the police arrived, she offered no resistance to the police, and did not flee. She confessed, saying that the idea had taken hold of her, and she simply had to act upon it.

The case became a sensation across Europe. Georget diagnosed her as a 'homicidal monomaniac.' At her trial, the jury decided that the act had not been premeditated and as a result, she was sentenced to life in prison with hard labor instead of death. This ruling makes little sense: Cornier admitted that the idea had occurred to her before the event, and she had carefully prepared her room for the murder. Thus, many commentators—include Lisa Appignanesi Appignanesi 2009, p 75—have attributed the jury's leniency to Georget's diagnosis of mental alienation. After all, if Cornier was mentally ill, does pre-planning count as 'premediation'?

The idea of the murderous monomaniac took off across Europe, informing or appearing in some of the greatest literature of era, including (according to various literary critics) Poe's "The Tell-Tale Heart," the character of Roskovikov in Dostovesky's *Crime and Punishment*, and even Heathcliff in Bonte's *Wuthering Heights*. The Marquis de Sade is also said to have been a monomaniac.

Early Neurology

Western medicine understood that the nervous system used, or conducted, electricity from the Galvani's famous frog-leg experiments of 1780. There were, as one might expect, different interpretation of the relationship between nerves and electricity—Galvani believed electricity was the 'vital force' contained in living things³⁷. Galvani's colleague Volta, who went on to lend his name to the 'Volt', argued that the frog leg reacted to electricity, but did not contain it. The precise relationship between nerves and electricity, as well as the relationship between the nervous system and our psychology, was not nailed down for a long time. But that didn't stop researchers in this era from speculating wildly. One of the most famous, whose theories about psychology are enshrined in our language in terms as frequent as 'nervous', is George Beard.

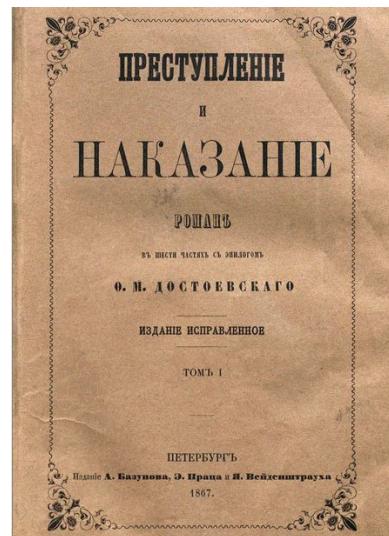


Figure 2.5: Cover of first edition of 'Crime and Punishment' by Fyodor Dostoevsky By [Public domain], via Wikimedia Commons

³⁷ And hence, the frequently-used trope of science fiction dating back to Frankenstein that the dead can be brought back to life with electricity.

American Nervousness — George Beard

George Beard (1839–1883) was an American physician who started out advocating for the use of electricity as a medical intervention. His first book *Medical Uses of Electricity* (Beard and Rockwell 1867) suggested that electricity could be used to cure 'general nervous debility,' including dyspepsia, chorea, neuralgia, anaemia, or amenorrhoea. Beard was a charismatic popular author, who went on to write a series of popular home-healthcare books starting with *Our Home Physician: Handy Book of Family Medicine* in 1869.³⁸

Starting in the 1870s, Beard became increasingly interested in psychological disorders. In 1881, he published *American Nervousness*, a book that came to define psychological treatment for a generation. 'Nervousness' did not mean then what it means today: jitteriness or tension. Then, it denoted a kind of fundamental exhaustion—what we still call a 'nervous breakdown'. Technically, Beard defined it as:

"deficiency of lack of nerve-force. This condition, together with all the symptoms of diseases that are evolved from it, has developed mainly within the nineteenth century, and is especially frequent and severe in the Northern and Eastern portions of the United States. Nervousness, in the sense here used, is to be distinguished rigidly and systematically from simple excess of emotion and from organic disease." Beard 1881, p. vi

It was caused by "modern civilization, which is distinguished from the ancient by these five characteristics: steam-power, the periodical press, the telegraph, the sciences, and the mental activity of women." (p. vi)

Beard was building on both folk theory of innate energy as well as recent discoveries in neurology (compare, for example, the concurrent theory of 'specific sense energies' proposed by Müller – see the 2.2 on page 30.). But he extended his view to cover diseases such as "neurasthenia (nervous exhaustion... hysteria, hay-fever, sick-headache, inebriety... some and phases of insanity." (p. vii) whose 'signs' could include:

The nervous diathesis; susceptibility to stimulants and narcotics and various drugs, and consequent necessity of temperance; increase of the nervous diseases inebriety and neurasthenia (nervous exhaustion), hay-fever neuralgia, nervous dyspepsia, asthenopia and allied diseases and symptoms; early and rapid decay of teeth; premature baldness; sensitiveness to cold and heat; increase of diseases not exclusively nervous, as diabetes and certain forms of Bright's disease of the kidneys and chronic catarrhs; unprecedented beauty of American women; frequency of trance and muscle-reading; the strain of dentition, puberty and change of life; American oratory, humor speech and language; change in type of disease during the past half century, and the great intensity of animal life on this continent. (p. vii-ix)

³⁸ For more, see Beard 1875



George M. Beard

Figure 2.6: See page for author Public domain via Wikimedia Commons

Beard died shortly after the publication of *American Nervousness*, but his cause was taken up by Silas Wier Mitchell (1829–1914), who popularized a standard treatment for American Nervousness: the rest cure. As you can probably imagine, if the cause of American Nervousness was modern civilization, including women having a mental life, the cure was removal from modern civilization, including banning women from having a mental life.

In 1885, at the age of 25, Charlotte Perkins Gilman, a member of a prominent family of American progressives that included the abolitionist author Harriet Beecher Stowe, the suffragist Isabella Beecher Hooker, and the charismatic clergyman Henry Ward Beecher, gave birth to her only child Katharine Beecher Stetson. After the birth, Charlotte Perkins-Gilman experienced what we now recognize as a severe case of post-partum depression.

She was taken to see Silas Wier Mitchell. She described her experience of the treatment she received thus:

"During about the third year of this trouble I went, in devout faith and some faint stir of hope, to a noted specialist in nervous diseases, the best known in the country. This wise man put me to bed and applied the rest-cure, to which all still-good physique responded so promptly that he concluded there was nothing much the matter with me, and sent me home with solemn advice to 'live as domestic a life as far as possible,' to 'have but two hours' intellectual life a day' and 'never touch a pen, brush or pencil again' as long as I lived. This was in 1887." ("Why I wrote *The Yellow Wallpaper*, 1913)

Her experiences you may know from the American Standard short story *The Yellow Wallpaper* (1892). Gilman acknowledged that she never suffered from the hallucinations her character does, but that she "came so near the borderline of mental ruin that I could see over." (1913)

While Beard and Wier Mitchell are today often ridiculed as snake-oil salesmen playing on political concerns over rapid modernization and the suffragist movement, they made a number of notable contributions to our commonsense understanding of psychological disorder. First, they indelibly linked mental disorders to neurology. As mentioned above, we still use phrases like 'nervous breakdown' in common parlance to explain psychological disorder. Second, by proscribing puberty, birth, menopause and the 'unprecedented beauty of American women' as prime causes of mental illness, they further established a link between the onset and frustration of sexuality with mental illness, a point upon which Freud would build psychoanalysis.

It would be a mistake, however, to accept the simplistic narrative that the doctors of this era were manipulating and abusing their female patients without their consent. Historians of Psychology Laura

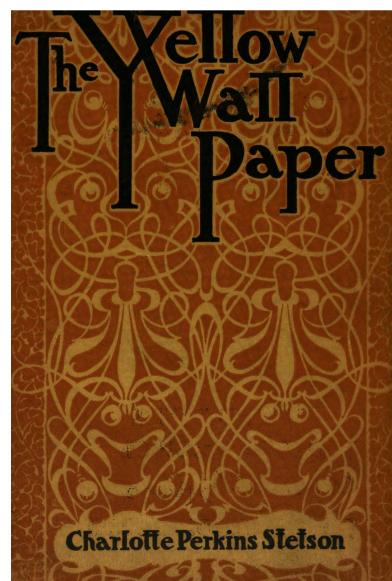


Figure 2.7: By Small, Maynard & Company (File:The Yellow Wall Paper.djvu) (Public domain), via Wikimedia Commons

C. Ball and Jennifer L. Bazar have recently demonstrated that in some cases, some women aggressively sought out procedures, such as clitorectomies, in this period. In one remarkable case, a patient even ‘tormented the doctors to operate again.’ Ball and Bazar 2010

One way to chart the rise of psychiatric diagnosis is to consider how people with mental illness are counted. Starting in 1830, the US census included categories for the disabled, including ‘blind’ and ‘deaf.’ Gorwitz 1974 From 1840–1870, the census included the category ‘idioty/insanity.’ Starting in 1880, however, the federal government began using categories of mental illness. In 1880, those categories were:

21	Mental Disease, Insanity	
	00	Melancholy
	01	Mania
	02	Hysteria
	03	Nerves
	04	Dementia
	05	Insane (not elsewhere classified)
22	Mental Retardation, Idiocy	
	00	Idiotic

Table 2.3: Mental Illness Classification used in the US Census of 1880

Readers of these sections will no doubt recognize this taxonomy as owing an intellectual debt to both Esquirol (Melancholy, Mania, Hysteria and Dementia) and Beard (Nerves).

Early Neurology — Charcot

Charcot began his career at the Salpêtrière tending to the ‘incurables’—the patients whose conditions had been classified as ‘idiocy’ or ‘dementia.’ Charcot saw himself primarily as a nosologist: a classifier or taxonomizer of disease, rather than a healer. His appointment was, in many ways, ideal. This was a patient population for which there was no hope of cure, and moreover, had not been studied in a careful way.

Charcot is, today, often classified as a neurologist. That is a bit of historicism, as there was no such field when he began work. In fact, the ‘neuron doctrine’, or the idea that the nervous system is composed of individual cells called ‘neurons,’ is not formally advanced until 1891. And it isn’t until 1911 that Ramon y Cajal uses the Golgi stain to highlight neurons in the hippocampus, confirming the neuron

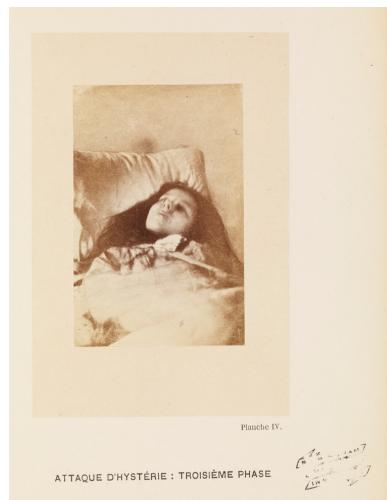


Figure 2.8: Photo of patient of M. Charcot in the Salpêtrière. From Wellcome images, <https://wellcomecollection.org/works/fh922zk8>

doctrine.

None of that stopped Charcot from classifying a huge number of conditions and diseases we still recognize today: multiple sclerosis, amyotrophic lateral sclerosis (ALS or “Lou Gerig’s disease,” it was once called “Charcot’s disease”), lenticulostriate artery (“Charcot’s artery”), joint arthropathy (“Charcot’s joint”), peroneal muscular atrophy (“Charcot-Marie-Tooth disease”), Charcot Wilbrand syndrome, Charcot’s intermittent hepatic fever and even Parkinson’s disease were all first named or described by Charcot.

Methodologically, Charcot advocated what he called the ‘anatomoclinical’ method, which meant careful anatomical analysis performed largely post-mortum combined with case studies of vivisection in both animals and human subjects. Once a behavioral deficiency has been identified, careful anatomical studies are carried out to determine any corresponding anatomical ‘deficiency,’ or lesion. In his own words:

Allow me to recall to your minds the opinion which that most illustrious physiologist, Claude Bernard, thus expressed:—“Pathology,” said he, “should not be subordinated to physiology. Quite the reverse. Set up first the medical problem which arises from the observation of a malady, and afterwards seek for a physiological explanation. To act otherwise would be to risk overlooking the patient, and distorting the malady.” These are excellent words, which I have ventured to quote verbatim, because they are absolutely significant. They enable us to clearly understand that the whole domain of pathology appertains strictly to the physician, who alone can cultivate it and make it fruitful, and that it necessarily remains closed to the physiologist who, systematically confined within the precincts of his laboratory, despairs the teaching of the hospital ward. (p. 8)

In 1878, he began extensive work on hypnosis. Hypnosis had been practiced at the Salpêtrière for over 50 years—since the days of Pinel, in fact. Charcot became increasingly interested in the therapeutic use of hypnosis to cure what he called ‘hysteria’, a vaguely-defined collection of usually transient symptoms that included paralysis, anesthesias, visual or auditory agnosias, temporary blindness or deafness, amnesia and seizures. While ‘hysteria’ came to be identified closely with women, Charcot himself believed that it could effect men, and treated many men that he diagnosed with hysteria.

This does not mean, however, that Charcot gave up his commitment to neurological explanations of behavior. He simply allowed functional and/or physiological explanations in addition to the anatomical. In his words:

There is another important fact in the history of neuroses in general, and of hysteria in particular, which clearly shows that these diseases do not form, in pathology, a class apart, governed by other physiological laws than the common ones. (13)

I've quoted this passage because it is the first use of the word 'neuroses' in print. Its root in neurological terminology is obvious, but here Charcot uses it to demarcate transient, psychological, functional or dynamic neurological conditions from the incurable, intransient, anatomical neurological conditions. The former we classify as 'mental', the latter 'neurological'—even today. 'Neurosis' thus supplants 'mental alienation' and 'nervousness' as the descriptor of the set of psychological conditions that cannot be explained physically, even though its root is connected to the idea of a physical manifestation in 'neurons.'

In 1890, blocked by antisemitism in Germany from further education, a young Sigmund Freud came to study with M. Charcot. There, he learned the techniques of hypnosis and studied many cases of hysteria. Later in life, Freud frequently referred to Charcot as his 'mentor,' and even attributed the idea that all neuroses originate 'in the genitals' to Charcot.³⁹

In his eulogy for Charcot, Sigmund Freud said:

He was not a reflective man, not a thinker: He had the nature of an artist—he was, as he himself said, a 'visuel', a man who sees... He used to look again and again at the things he did not understand, to deepen his impression of them day by day, till suddenly an understanding of them dawned on him. In his mind's eye the apparent chaos presented by the continual repetition of the same symptoms then ave way to order: the new nosological picture emerged, characterized by the constant combination of certain groups of symptoms... He might be heard to say that the greatest satisfaction a man could have was to see something new—that is, to recognize it as new; and he remarked against and again n the difficulty and value of this kind of 'seeing'. (Quoted in Mad, Bad and Sad, p. 128)

It should be fairly obvious that Freud here is dismissing, essentially, Charcot's Baconian approach to scientific classification: careful, close observation with only careful, conservative theoretical suppositions. Unlike Charcot, who is remembered only in the names of the diseases he classified, Freud became globally famous for his theoretical suppositions. Whereas Charcot was content with describing neuroses and localizing them in the nervous system, Freud sought to explain the origins of neuroses in non-physical terms.

Rise of Psychoanalysis

Hysteria and Hypnosis: Freud & Breuer on Anna O.

By the end of the 19th century, we are beginning to find general agreement that mental illnesses are characterized by symptoms with no bodily, physical (or in Beard's terms 'organic') explanation.⁴⁰ That

³⁹ In his 'History of the Psychiatric Movement', Freud writes: "...It was the case of the young married couple from the far East. The wife was a great sufferer and the husband was impotent, or exceedingly awkward. I head Charcot repeat: 'Tâchez donc, je vous assure vous y arriverez.' Brouardel, who spoke less distinctly, must have expressed his astonishment that such symptoms as those of the young wife should have appeared as a result of such circumstances, for Charcot said suddenly and with great vivacity: "Mais, dans de cas pareils, c'est toujours la chose génital, toujours—toujours-toujours." And while saying that, he crossed his hands in his lap and jumped up and down several times, with the vivacity peculiar to him." Freud and Brill 1938, p. 937–938

We know that George Beard and Silas Wier Mitchell had the same view at this point, and that Freud was familiar with their work on 'hysteria.' What is unknown, given that Freud's retelling of this anecdote is based on his memory alone, is the accuracy of this story. It might be the case, and it might just be Freud misattributing a theory he picked up from Beard and Wier Mitchell to his mentor years after the fact.

⁴⁰ See, for example, Drelich, Marvin G. "Classical Psychoanalytic School" in Arieti 1974

understanding defined the limits of psychiatry. When a condition could be explained in anatomical terms, it was no longer considered psychiatric and reverted to medical or neurological. When it could not be understood physically—when it had to be explained in terms of 'psychic energy—it was given to the psychiatrists.

This thesis was not challenged largely because psychiatrists practiced in hospitals that contained psychiatric patients. That sounds circular, but it isn't: Pinel, Esquirol and Charcot were attempting to create a theory of mental illness that could explain the patients they saw before them. The patients they saw before them were not brought there because they fit the theory, or because they had chosen to be there. They were brought to the Bicêtre and Salpêtrière when the rest of the medical community had given up attempting to explain their symptoms.

The same can be said for Beard and Wier Mitchell: Perkins Gilman was taken to see Wier Mitchell only after all physical interventions had failed.

These founders of psychiatry theorized about a population that had been deemed mentally ill *because the medical community had given up explaining their symptoms*. Not the other way around. The Psychiatric hospital was a kind of catch-all for those individuals whose symptoms could not be alleviated by physical medicine, and hence it is unsurprising that the definitions of insanity we find in this era require the absence of a physical explanation.

Without a control population, there was no way these classifications could tease apart underlying conditions from any effects that may have resulted from being classified this way in the first place.

In 1880, Josef Breuer, a student of the great psycho-physiologist Ewald Hering, was studying the ear as a part of his research at Vienna General Hospital. It was there that he first met 'Anna O.', a young woman with an extremely acute cough. Finding **no physical reason** for the cough, her family physician diagnosed her with "typical *tussis nervosa* [nervous cough]" Freud, Breuer, and Luckhurst 2004, p 27

Shortly thereafter a number of other symptoms arose. Freud & Breuer describe her case thusly:

Before this time she too had always enjoyed good health, showing no sign of nervous indisposition during her development. Of considerable intelligence, remarkably acute powers of reasoning, and a clear-sighted intuitive sense, her powerful mind could have digested, needed even, more substantial intellectual nourishment, but failed to receive it once she had left school. Her rich poetic and imaginative gifts were controlled by a very sharp and critical common sense. The latter also made her quite closed to suggestion. Only arguments had any influence on her, assertions were without effect. Her will was energetic, tenacious and persistent, sometimes heightened to such obstinacy that it would

give way only out of kindness and consideration for others.

One of her principle traits was a sympathetic kindness. Even during her illness, she benefited greatly from the care and support she gave to some sick and poor people, for it allowed her to satisfy a strong drive. Her spirits always tended slightly to exaggeration, whether of joyfulness or grief, and as a consequence she was also somewhat moody. The element of sexuality was remarkably undeveloped: the patient, whose life became transparent to me in a way that seldom happens between people, had never been in love, and not once in the mass of hallucinations that occurred during her illness did this element of the inner life emerge...

...The course of the illness falls into several distinct phases. They are as follows:

A) Latent incubation. From mid-July 1880 to approximately 10 December. This case was exceptional because it afforded so complete an insight into a phase that in most cases escapes us, and for this reason alone its pathological interest could not be overestimated. I will expound on this part of the history later.

B) Manifest illness: a peculiar kind of psychosis, paraphasia, *stabismus convergens* [convergent squint], sever visual disturbance, paralyzing contractures, complete paralysis in the upper right and both lower extremities, partial paralysis in the upper left extremity, paresis of the neck muscles. A gradual reduction in the contracture of the right extremities. Some improvement, interrupted by a sever psychical trauma (death of the father) in April, after which

C) A period of continual somnambulism ensues, which then alternates with more normal states; continuation of a series of chronic symptoms until December 1881.

D) Gradual winding down of mental states and symptoms until June 1882. Freud, Breuer, and Luckhurst 2004, p25–26

Breuer took over her care during the period of ‘manifest illness,’ during which, Anna O. slept for great periods of time (‘somnambulism’), but when she awoke in the evening, she would complain of ‘torment.’ Her speech lost all grammatical structure (‘paraphasia’) and she would piece together words and phrases from the five distinct languages she spoke, producing an incomprehensible jargon. This same jargon appeared in writing, so Breuer knew that it was not a dysfunction of the physical mechanism of speech.

In the early spring of 1881, Anna O fell mute for a period of two weeks. At this point, Breuer claims that he

“knew she had taken great offense at something and had resolved to say nothing about it. When I guessed as much and forced her to talk about it, the inhibition, which had until then made it impossible for her to speak about anything else either, disappeared.” Freud, Breuer, and Luckhurst 2004, p 29

After her father's death, her illness became much more severe. Breuer noticed, however, that her periods of sleep in the later afternoon, during which she was 'tormented' by hallucinations, resembled hypnotic states. He decided to preemptively hypnotize her and prompt her to 'talk through' these tormenting phantasies. The symptoms subsided quickly. The day after a session, she would become 'quite calm' and 'agreeable, obedient, industrious and even in good spirits'. The second day after a session she would be 'increasingly moody, contrary and disagreeable, and this worsened on the third.' Anna O. named these sessions (in English) the 'talking cure' and 'chimney-sweeping.' Breuer preferred the more sophisticated 'cathartic procedure.'

Breuer communicated this to his friend Sigmund Freud, who offered to co-author a paper laying out the findings. That paper, titled 'The Psychic Mechanism of Hysterical Phenomena,' first appeared in 1893, but was republished as the first chapter of Freud and Breuer's *Studies on Hysteria* Freud, Breuer, and Luckhurst 2004, 1895. In it, Freud and Breuer propose a new form of hysteria, called 'traumatic hysteria', which they conjecture is always connected to some traumatic event that evokes the syndrome. They further hypothesize that the traumatic event can be unavailable to the conscious, reflective mind of patient—i.e. be unconscious—yet still be causally responsible for the hysterical symptoms. Moreover, they hypothesize that making the patient aware of the trauma, via Breuer's 'cathartic procedure' using hypnosis if necessary, alleviates the hysteria.

Freud: The foundation of psychoanalysis

The seeds of psychoanalysis were planted by Charcot and Breuer, but they did not develop into a full-fledged system of Psychiatry until Freud worked independently. Building on his theory of unconscious trauma to explain hysteria, Freud hypothesizes that traumatic events may manifest themselves in the mind indirectly in the form of symbols. He then went on to realize that the fantasy lives of the psychotic are full of such symbols, and recovering the original trauma requires investigation of the mechanisms of symbolization.

It was this realization that gives us the basis for psychoanalysis, for it is this realization that allows Freud to argue that the hallucinations and fantasies experiences by the psychotic are not significantly different from the dreams of the sane. Whereas prior to Freud, dreams and hallucinations were thought to be without meaning, after Freud they were seen as full of symbolic representations, the meanings of which were available empirically through systematic investigation of the mechanisms of psychological representation. Freud's proposed

mechanisms are introduced in the 4.1 section on page 117 of the game book.

The barrier between the mentally ill and the mentally healthy had been permanently broken.⁴¹ No longer does the theory of psychiatry apply only to those who cannot be helped by medicine. Now the theory applies to everyone: a healthy person could become ill through unhealthy habits of mental representation, and ill people could become healthy through the process of discovering their habits of mental representation and recognizing their unconscious traumas.

This conflation of psychiatric conditions and normal life left Freud in the precarious position of having to define 'mental illness.' He did so thus:

Symptoms—and of course we are dealing now with psychical (or psychogenic) symptoms and psychical illness—are acts detrimental, or at least useless, to the subject's life as a whole, often complained by him as unwelcome and bringing unpleasure or suffering to him. Freud 1929, p. 445

Table 2.4: Freud's Definition of Mental Illness

Neurosis v. Psychosis. One of the hallmarks of Freud's theory is his thesis that there is no hard and fast distinction to be made between the mentally ill and the mentally healthy. His *Introductory Lectures* are structured to introduce the reader to psychopathology in everyday life before extending the analysis of common activities to psychotics and neurotic patients. As such, there are no hard and fast definitions of psychosis and neurosis⁴².

During the course of normal development of mentally healthy adults, the ego must become 'reasonable': it must no longer let "itself be governed by the pleasure principle, but obeys the reality principle, which also at bottom seeks to obtain pleasure, but pleasure which is assured through taking account of reality, even though it is pleasure postponed and diminished." (p. 444) A neurotic's ego fails to make this transition, and gets stuck at one point in development. Thus, the neurotic's libido and ego are still struggling in a child-like way, but the contents of the struggle have been transformed into objects of adulthood. Neurotic symptoms are the "outcome of a conflict which arises over a new method of satisfying the libido" (p. 446) and a person is ill from neurosis only if "his ego has lost the capacity to allocate his libido in some way" (p. 480). A psychotic patient, however, has lost the battle for the reality principle, and the libido has created its own reality.

⁴¹ I am simplifying here a bit. While Freud is commonly believed to originate the idea that dreams and psychotic hallucinations were best understood on a continuum, the ideas appears in the work of the British associationist Alexander Bain. See, e.g. Bain 1903, p. 45

⁴² The distinction between neurosis and psychosis has always been controversial. Consider Pavlov's comment in his 1927 lectures: "Contemporary medicine distinguishes "nervous" and "psychic" disturbances-neuroses and psychoses, but this distinction is, of course, only arbitrary. No real line of demarcation can be drawn between these two groups: it is impossible to imagine a deviation of higher activities from normal without a functional or structural disturbance of the cortex." Pavlov 1927, Lecture 23

The object of a neurosis, then, is relevant to the diagnosis only insofar as it is a stand-in for the actual conflict by the mechanisms of repression, reaction formation, isolation, etc. According to Freud: “clinical psychiatry takes little notice of the outward form or content of individual symptoms, but psychoanalysis takes matters up at precisely that point and has established in the first place the fact that symptoms have a sense and are related to the patient’s experience.” (p. 318)

See Lectures 22 and 23 of the *Introductory Lectures* for a full discussion of neurosis and its origins.

The Clark Lectures

In 1909, G. Stanley Hall, first president of the American Psychological Association, invited Freud and Jung to give a series of lectures at Clark University. The conference itself was a major moment in the intellectual history of America, as such luminaries as William James, Franz Boas, Adolf Meyer and E.B. Tichner were in attendance, as well as the famed Anarchist Emma Goldman.⁴³

After the lectures, James Jackson Putnam, a neurologist in New York City, invited Freud and Jung to retire to his family’s Adirondack ‘great camp’ for the weekend. (Prochnik 2006) Putnam became an important advocate for psychoanalysis in the United States, establishing its legitimacy as a treatment for hysteria. While there are articles prior to 1909 on psychoanalysis (notably one by Putnam himself in 1906), we don’t find significant discussion of psychoanalysis in the mainstream journals of Psychology until after the Clark lectures.⁴⁴ An effort to convince the American public of the scientific nature of psychoanalysis was mounted by Putnam camp attendees A.A. Brill, founder of the New York Psychoanalytic Society, and Ernest Jones, student of Freud. By 1916, Jones had published 20 articles, notes and reviews in the *Journal of Abnormal Psychology* offering or advocating for psychoanalysis.⁴⁵

Putnam and Freud went on to become close friends, and Putnam spent much of the rest of his career attempting to professionalize and regularize the practice of psychiatry. He founded the American Psychoanalytic Association (APsaA) in 1911, which is still active today. His posthumously published *Addresses on Psychoanalysis*, which contains a preface by Freud himself, not only seeks to introduce Freudian theory to his scientific community, but also to dispel misunderstanding gained “through the gossip of prejudice and misconception” Putnam 1921, p. 3.

Putnam’s influence here cannot be understated. Putnam introduced psychoanalytic ideas to the budding field of medical neurology. His

⁴³ See, for example Jacoby 2009
Experienced Reactors may recognize Emma Goldman from Mary Jane Tracey’s Suffrageist game

⁴⁴ For a discussion, see Hornstein, Pickren, and Dewsbury 2002

⁴⁵ See, e.g. Hornstein, Pickren, and Dewsbury 2002, p. 474

position as a medical doctor at Harvard gave psychoanalysis legitimacy as a medical practice in America, and his stature in the neurological community helped to assuage any doubts about the lack of a physical basis for the hypothetical entities posited by Freud's structural hypothesis.

The story is not all smooth sailing. In 1916, the Princeton philosopher and psychologist Warren Fite reviewed of Jung's *Psychology of the Unconscious* for *The Nation*, writing that it "presents some five hundred-odd pages of incoherence and obscenity in the form of a psycho-analytic interpretation of the experiences of a sentimental young American woman."⁴⁶ The fact that the United States was at war with Germany didn't help the psychoanalytic cause: Christine Ladd-Franklin, a student of C.S. Peirce and protege of no less than Hermann Helmholtz as well as one of the first women in the APA, called Freud's theory the product of an "undeveloped... German mind."

What followed is a history of tension between those in the psychological and psychoanalytic communities. Helped by the military's preference for psychoanalysts in the treatment of 'shell-shock' during WWI and 'combat fatigue' in WWII, psychoanalysis gained credibility in the eyes of the American public.⁴⁶

⁴⁶ See Chapter 1 of Menninger and Neimiah 2000 for an interesting discussion of this history.

Classification of Mental Illness, 1918–1952

In 1917 during its annual meeting in New York, the American Medico-Psychological Association (now the American Psychiatric Association) in cooperation with the National Commission on Mental Hygiene formed a committee on statistics and charged it with creating a guide for classifying mental illness. The resulting document, *Statistical Manual for the Use of Institutions for the Insane*, was published in 1918 and adopted around the nation. It is available freely on google books. The manual outlined 21 medical-psychological categories, displayed in table 2.5:

Major Category	Minor Category
1. Traumatic psychoses	(a) Traumatic delirium (b) Traumatic constitutional (c) Post-traumatic mental enfeeblement (dementia)
2. Senile psychoses	

	(a) simple deterioration (b) Presbyophrenic type (c) Delirious and confused types (d) Depressed and agitated states in addition to deterioration (e) Paranoid types (f) Pre-senile types
3.	Psychoses with cerebral arteriosclerosis
4.	General paralysis
5.	Psychoses with cerebral syphilis
6.	Psychoses with Huntington's chorea
7.	Psychoses with brain tumor
8.	Psychoses with other brain or nervous diseases
	The following are the more frequent affections and should be specified in the diagnosis Cerebral embolism Paralysis agitans Meningitis, tubercular or other forms (to be specified) Multiple sclerosis Tabes Acute chorea Other conditions (to be specified)
9.	Alcoholic psychoses
	(a) Pathological intoxication (b) Delirium tremens (c) Korsakow's psychosis (d) Acute hallucinosis (e) Chronic hallucinosis (f) Acute paranoid type (g) Chronic paranoid type (h) Alcoholic deterioration (i) Other types, acute or chronic
10.	Psychoses due to drugs or other exogenous toxins
	(a) Opium (and derivatives), cocaine, bromides, chloral, etc. alone or combined (to be specified) (b) Metals, as lead, arsenic, etc. (to be specified) (c) Gases (to be specified) (d) Other exogenous toxins (to be specified)
11.	Psychoses with pellagra
12.	Psychoses with other somatic diseases

	(a) Delirium with infectious diseases (b) Post-infectious psychosis (c) Exhaustion-delirium (d) Delirium of unknown origin (e) Cardio-renal diseases (f) Disease of the ductless glands (g) Other diseases or conditions (to be specified)
13. Manic-depressive psychoses	
	(a) Manic type (b) Depressive type (c) Stupor (d) Mixed type (e) Circular type
14. Involution melancholia	
15. Dementia praecox	(a) Paranoid type (b) Catatonic type (c) Hebephrenic type (d) Simple type
16. Paranoia or paranoic conditions	
17. Epileptic psychoses	(a) Deterioration (b) Clouded states (c) Other conditions (to be specified)
18. Psychoneuroses and neuroses	
	(a) Hysterical type (b) Psychasthenic type (c) Neurasthenic type (d) Anxiety neuroses
19. Psychoses with constitutional psychopathic inferiority	
20. Psychoses with mental deficiency	
21. Undiagnosed psychoses	
22. Not insane	(a) Epilepsy without psychosis (b) Alcoholism with psychosis (c) Drug addition without psychosis (d) Constitutional psychopathic inferiority without psychosis (e) Mental deficiency without psychosis (f) Others (to be specified)

Table 2.5: *Statistical Manual for the Use of Institutions for the Insane classification of insanity, 1918*

In 1928, the New York Academy of Medicine invited the Public Health Service, the Army and Navy Medical Departments and the American Hospital Association to collaborate on a standard nomenclature of disease. That standard was first published in 1933 as *A Standard Classified Nomenclature of Disease*, generally referred to as *The Standard*, and was widely used until at least the 1960s. Houts 2000

In its original form, it used the following ten categories, as displayed in table 2.6:

- 0 Diseases due to prenatal influences
- 1 Diseases due to lower plant and animal parasites
- 2 Diseases due to higher plant and animal parasites
- 3 Diseases due to intoxication
- 4 Diseases due to trauma or physical agents
- 5.0 Diseases due to circulatory disturbances
- 5.5 Diseases due to disturbances of innervation or of psychic control
- 6 Diseases due to or consisting of static mechanical abnormality (obstruction; calculus; displacement and gross changes in form etc., due to unknown cause).
- 7 Diseases due to disorders of metabolism, growth or nutrition
- 8 New growths
- 9 Diseases due to unknown or uncertain causes, the structural reaction (generative, infiltrative, inflammatory, proliferate, sclerotic, or reparative) to which is manifest; and hereditary and familial diseases of this nature.
- X Diseases due to unknown or uncertain causes, the functional reaction to which is alone manifest; and hereditary and familial diseases of this nature.

Table 2.6: *Standard Classified Nomenclature classification of disease*,
1933

You may notice that the medical classification is entirely based on the origin or cause of a condition ('Diseases **due to...**'), not the symptoms. In the 2.5, classification system, mental diseases are classified by the Freudian terms 'psychosis' and 'neurosis', except for melancholy and dementia.

During WWII, psychiatrists classified patients according to the standards of the branch of the armed forces for which they worked. In 1943, Brigadier General William C. Menninger issued a bulletin called "Medical 203" that laid the foundations for medical classification of mental illness. The Navy, Army and Veterans affairs branches all used slightly different diagnostic criteria and classifications.

The International Statistical Classification of Diseases (ICD) included a taxonomy of mental disorders for the first time in 1949. Its classification system is displayed in table 2.7:

300	Schizophrenic disorders (dementia praecox)
300.0	Simple type
300.1	Hebephrenic type
300.2	Catatonic type
300.3	Paranoid type
300.4	Acute schizophrenic reaction
300.5	Latent schizophrenia
300.6	Schizo-affective psychosis
300.7	Other and unspecified
301	Manic-depressive reaction
301.0	Manic and circular
301.1	Depressive
301.2	Other
302	Involutional melancholia
303	Paranoia and paranoid states
304	Senile psychosis
305	Presenile psychosis
306	Psychosis with cerebral arteriosclerosis
307	Alcoholic psychosis
308	Psychosis of other demonstrable aetiology
308.0	Resulting from brain tumour
308.1	Resulting from epilepsy and other convulsive disorders
308.2	Other
309	Other and unspecified psychoses
(310-318)	Psychoneurotic disorders
310	Anxiety reaction without mention of somatic symptoms
311	Hysterical reaction without mention of anxiety reaction
312	Phobic reaction
313	Obsessive-compulsive reaction
314	Neurotic-depressive reaction
315	Psychoneurosis with somatic symptoms (somatisation reaction) affecting circulatory system
315.0	Neurocirculatory asthenia
315.1	Other heart manifestations specified as of psychogenic origin
315.2	Other circulatory manifestations of psychogenic origin
316	Psychoneurosis with somatic symptoms (somatisation reaction) affecting digestive system
316.0	Mucous colitis specified as of psychogenic origin
316.1	Irritability of colon specified as of psychogenic origin
316.2	Gastric neuroses
316.3	Other digestive manifestations specified as of psychogenic origin
317	Psychoneurosis with somatic symptoms (somatisation reaction) affecting other systems

317.0	Psychogenic reactions affecting respiratory system
317.1	Psychogenic reactions affecting genito-urinary system
317.2	Pruritus of psychogenic origin
317.3	Other cutaneous neuroses
317.4	Psychogenic reactions affecting musculoskeletal system
317.5	Psychogenic reactions affecting other systems
318	Psychoneurotic disorders, other, mixed and unspecified types
318.0	Hypochondriacal reaction
318.1	Depersonalisation
318.2	Occupational neurosis
318.3	Asthenic reaction
318.4	Mixed
318.5	Of other and unspecified types
(320-326)	Disorders of character, behaviour, and intelligence
320	Pathological personality
320.0	Schizoid personality
320.1	Paranoid personality
320.2	Cyclothymic personality
320.3	Inadequate personality
320.4	Antisocial personality
320.5	Asocial personality
320.6	Sexual deviation
320.7	Other and unspecified
321	Immature personality
321.0	Emotional instability
321.1	Passive dependency
321.2	Aggressiveness
321.3	Enuresis characterising immature personality
321.4	Other symptomatic habits except speech impediments
321.5	Other and unspecified
322	Alcoholism
322.0	Acute
322.1	Chronic
322.2	Unspecified
323	Other drug addiction
324	Primary childhood behaviour disorders
325	Mental deficiency
325.0	Idiocy
325.1	Imbecility
325.2	Moron
325.3	Borderline intelligence
325.4	Mongolism
325.5	Other and unspecified types
326	Other and unspecified character, behaviour and intelligence disorders

326.0	Specific learning defects
326.1	Stammering and stuttering of non-organic origin
326.2	Other speech impediments of non-organic origin
326.3	Acute situational maladjustment
326.4	Other and unspecified

Table 2.7: ICD-6 classification of mental diseases, 1949

In the interest of unifying these different classification schema, the American Psychiatric Association voted to create the first Diagnostic and Statistical Manual (DSM). The nomenclature committee adapted the Medical 203 bulletin into the DSM and circulated it to a randomly selected sample of the membership (10%). When it was overwhelmingly approved by those who replied, the APA adopted it as the standard for diagnosis in medical treatment of psychological disorders. It is included as Appendix G The first DSM distinguished between "Disorders caused by or associated with impairment of brain tissue function," "Mental Deficiency," "Disorders of psychogenic origin or without clearly defined physical cause or structural change in the brain" and "Nondiagnostic Terms for Hospital Record." This fourth category included "Alcoholic intoxication (simple drunkenness)," and "Dead on admission." It is the third category, those without a physical cause, that is of the most interest to us. They are displayed here in table 2.8

Psychotic Disorders		ICD-6 Ref
-7	Disorders due to disturbance of metabolism, growth, nutrition or endocrine function	
000-796	Involuntary psychotic reaction	(302)
-x	Disorders of psychogenic origin or without clearly defined tangible cause or structural change	
000-x10	Affective reactions	(301.2)
000-x11	Manic depressive reaction, manic type	(301.0)
000-x12	Manic depressive reaction, depressive type	(301.1)
000-x13	Manic depressive reaction, other	(301.2)
000-x14	Psychotic depressive reaction	(309.0)*
000-x20	Schizophrenic reactions	(300.7)*
000-x21	Schizophrenic reaction, simple type	(300.0)
000-x22	Schizophrenic reaction, hebephrenic type	(300.1)
000-x23	Schizophrenic reaction, catatonic type	(300.2)
000-x24	Schizophrenic reaction, paranoid type	(300.3)
000-x25	Schizophrenic reaction, acute undifferentiated type	(300.4)
000-x26	Schizophrenic reaction, chronic undifferentiated type	(300.7)
000-x27	Schizophrenic reaction, schizo-affective type	(300.6)
000-x28	Schizophrenic reaction, childhood type	(300.8)

000-x29	Schizophrenic reaction, residual type	(300.5)
000-x30	Paranoid reactions	(303)
000-x31	Paranoia	(303)
000-x32	Paranoid state	(303)
000-xyo	Psychotic reaction without clearly defined structural change, other than above	(309.1)*
Psychophysiologic autonomic and visceral disorders		
-55	Disorders due to disturbance of innervation or of psychic control	
001-580	Psychophysiologic skin reaction	(317.3)
002-580	Psychophysiologic musculoskeletal reaction	(317.4)
003-580	Psychophysiologic respiratory reaction	(317.0)
004-580	Psychophysiologic cardiovascular reaction	(315.2)
005-580	Psychophysiologic hemic and lymphatic reaction	(317.5)
006-580	Psychophysiologic gastrointestinal reaction	(316.3)
007-580	Psychophysiologic genito-urinary reaction	(317.1)
008-580	Psychophysiologic endocrine reaction	(317.5)
009-580	Psychophysiologic nervous system reaction	(318.3)
00x-580	Psychophysiologic reaction of organs of special sense	(317.5)
Psychoneurotic Disorders		
-x	Disorders of psychogenic origin or without clearly defined tangible cause of structural change	
000-x00	Psychoneurotic reactions	(318.5)*
000-x01	Anxiety reaction	(310)
000-x02	Dissociative reaction	(311)
000-x03	Conversion reaction	(311)
000-x04	Phobic reaction	(312)
000-x05	Obsessive compulsive reaction	(313)
000-x06	Depressive reaction	(314)
000-xyo	Psychoneurotic reaction, other	(318.5*)
Personality Disorders		
-x	Disorders of psychogenic origin or without clearly defined tangible cause of structural change	
000-x40	Personality pattern disturbance	(320.7)
000-x41	Inadequate personality	(320.3)
000-x42	Schizoid personality	(320.0)
000-x43	Cyclothymic personality	(320.2)
000-x44	Paranoid personality	(320.1)
000-x50	Personality trait disturbance	(321.5)
000-x51	Emotionally unstable personality	(321.0)
000-x52	Passive-aggressive personality	(321.1)
000-x53	Compulsive personality	(321.5)
000-x54	Personality trait disturbance, other	(321.5)*
000-x60	Sociopathic personality disturbance	(320.7)*
000-x61	Antisocial reaction	(320.4)

000-x62	Dysocial reaction	(320.5)
000-x63	Sexual deviation. Specify supplementary term	(320.6)
000-x64	Addiction	
000-x641	Alcoholism	(322.1)
000-x642	Drug addiction	(323)
000-x70	Special symptom reactions	(321.4)*
000-x71	Learning disturbance	(326.0)*
000-x72	Speech disturbance	(326.2)*
000-x73	Enuresis	(321.3)
000-x74	Somnambulism	(321.4)
000-x7y	Other	(321.4)*
Transient Situational Personality Disorders		
000-x80	Transient situational personality disturbance	(326.4)*
000-x81	Gross stress reaction	(326.3)*
000-x82	Adult situational reaction	(326.6)*
000-x83	Adjustment reaction of infancy	(324.0)*
000-x84	Adjustment reaction of childhood	(324.1)*
000-x841	Habit disturbance	(324.1)*
000-x842	Conduct disturbance	(324.1)*
000-x843	Neurotic disturbance	(324.1)*
000-x85	Adjustment reaction of adolescence	(324.2)*
000-x86	Adjustment reaction of late life	(326.5)*

Table 2.8: *DSM-I Classification of mental disorders* Corresponding diagnosis from the ICD-6 are noted in the right most column, 1952

Notice that while the major classification here is ‘Psychotic Disorders’, the word “reaction” appears in 41 of the 48 diagnoses. See the overview of Classical Psychoanalysis in section 4.1 on page 117.

The APA published the revised DSM-II in 1968. It is included as Appendix I..

The Rise of Psychopharmacology

Because psychoanalysis tended to be confined to clinical, military settings in the US, a kind of stable truce—the more cynical might even say a ‘cold war’—settled over the conflict between behaviorism and psychoanalysis. By and large, psychoanalysis confined itself to the medical setting; while behaviorism confined itself to pure research. There were, no doubt, volleys across the bow of one or the other from time to time. But until Skinner’s wide-ranging proposals for behaviorism as social reformation, there were few open hostilities.

Much of the scientific credibility for psychoanalysis turned on its

success in treating psychotic patients. Medical Doctors tend not to worry so much about the putative mechanism of a therapy, so long as that therapy works for the individual patient in question. It isn't uncommon for a drug to help some small portion of the population and fail with another. Generalizations to universal laws are uncommon in the practice of medicine, and much the of time the cause of a certain medical condition remains unknown, even if we understand how to cure it (consider cancers like lymphoma, for example). Thus, when psychologists objected that psychoanalysis did not generalize, its mechanisms were untestable, and as a treatment it was highly individualistic, medical practitioners were not overly impressed.

All of that changed starting in 1955 when Wallace Labs began marketing the world's first popular psychotropic for the treatment of anxiety: *Miltown*. The Wallace Lab claimed that *Miltown* controlled anxiety without reducing mental function, allowing patients to return to their normal lives. It was quickly followed by *Tofranil*, an antidepressant, in 1959; *Librium*, an anti-anxiety medication, in 1960; and *Valium* in 1963. In 1969, the neurologist Oliver Sacks administered a new drug L-DOPA to patients who had been comatose for almost 40 years. They woke up. His experiences were immortalized in the book and subsequent movie, *Awakenings*. Sacks 1974

(<https://creativecommons.org/licenses/by/4.0/>), via Wikimedia Commons https://commons.wikimedia.org/wiki/File:Advert_for_Tofranil_Geigy_Wellcome_L0043517.jpg

These drugs did—in short order—what years of psychoanalysis, hypnosis, electro-shock therapy (the decedent of Beard's treatments) and confinement could not: they allowed patients with crippling anxiety to return to normal or close-to-normal functioning.⁴⁷

2.5 Setting the stage for 1971

In 1961, Thomas Langer and Stanley Michael conducted 2-hour interviews with 1,660 individuals chose at random from the streets of New York. This was, in many ways, the first wide-scale study of the psychology of people *not already* seeking treatment for psychological trouble. Their findings are quite simple: socio-economic status and age explain most of an individual's mental health.

The study was revolutionary. As S. H. Kraines of the University of Chicago said “[this study] is a pioneer in obtaining ‘objective’ information. Psychiatry is too promote to the philosophical other than the factual.” Kraines 1964

Since the origin of psychiatry, there has been a distinction made between those disorders that can be directly attributable to a biological dysfunction of the brain and those that cannot. The former were classified as ‘neurological,’ and the latter ‘psychiatric.’ It is this inabil-

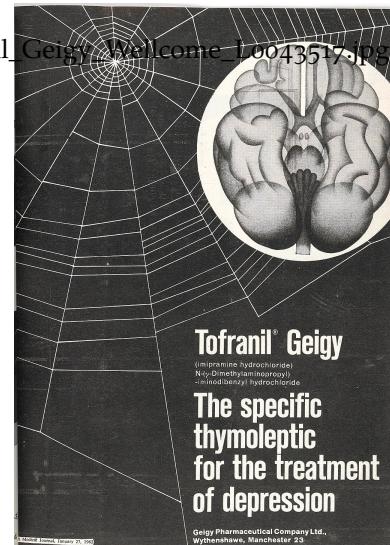


Figure 2.9: See page for author CC BY 4.0

⁴⁷ For a particularly fascinating example, see <https://prescriptiondrugs.procon.org/view.resource.php?resourceID=005707>

ity to find a biological etiology of the disorder defines the domain of psychiatry.

Two major trends are appearing in psychology and psychiatry:

1. The current psychoanalytic taxonomy of mental states is based on conjectures and assumptions based on a few case studies, and they have not been tested against evidence and observation.
2. Psychiatric disorders must have a physical component, and hence, the line between psychiatry and neurology may be breaking down.

In light of these trends, what will happen to the field of psychiatry?

3 Game Play

3.1 Major Issues in the Game

All psychological theories hold that human action can be described, understood, predicted and controlled based on previous actions or mental processes of that human. The way to make those predictions—and the underlying mechanisms posited that explain those actions—separates psychological theories from each other.

When I say ‘mechanism’, I am using a very specific notion in the Philosophy of science. A mechanism is an organization of underlying entities which interact with each other to create the phenomenon of interest. Biologists talk of “mechanisms of cell death”, Doctors and Pharmacists of “drug actions and mechanisms”, Chemists speak of the “mechanisms of reactions,” etc.

When one looks at the history of psychological theories, it is not hard to see the metaphorical connections between the psychological mechanisms posited at a certain time, and the most complicated machines available to that society. Psychoanalysis, which was dominant in American Psychiatry from 1890 until the events of this game, posits an underlying unconscious, which ‘boils’ away, providing energy for all observable behavior. When that behavior is correctly directed with the right set of pressures, it moves the organism forward. When it is not, either the pressure goes out sideways, creating negative behaviors, or it builds towards ultimate ‘explosion’ in psychosis. It is, in short, a steam engine.

Behaviorism sought to explain all behavior in terms of stimulus and response, without recourse to ‘internal states’ or ‘processes’. Behaviorism’s rise which started in 1913 and peaked with the Radical Behaviorism of Skinner in 1958 correspond roughly to the electrification of the United States, as well as the rise of mass media including radio and television. Electric lights, toasters, radios and TVs are straightforward stimulus-response mechanisms: apply electricity and something happens. Don’t apply electricity and nothing happens. Think of an old telephone switchboard¹—direct connections between callers produce information flow. The wiring operates without internal computation

¹ See, e.g. Spence 1950. I am indebted to Hothersall for pointing out the ‘switchboard’ metaphor in his explanation of the ‘Neobehaviorism’ of Skinner in his 1984 *History of Psychology* Hothersall 1984, p. 411

or representation: stimulus produces response in a law-like linear relationship.

On the other hand, once the notion of a ‘computer’ with internal working memory (RAM) and permanent storage (hard drives) arrives in the 1960’s, Cognitivism results. And notably, from MIT. Here, the mind is a metaphor of the computer: it takes information in, executes computational functions, and produces behavioral output. Today, we use computer-based nomenclature when talking about the mind all the time: someone might not have the ‘bandwidth’ for a new task, the ‘executive function’ system might be down, we look for ‘expert systems’, or think ‘algorithmically.’ These are all metaphors—metaphors that compare the human mind to the dominant technological apparatus of our time: the computer and internet.

The Central issues

There are three interweaving threads of debate in this game. The first—the **main issue of debate**—is whether or not psychoanalysis is a viable theory of human action. If it is, mental illnesses out to be classified according to the competing psychoactive mechanisms. If it is not, we need to figure out how mental illness should be classified.

The issue of the demedicalization of homosexuality, which begins this debate, is merely the tip of the iceberg—if homosexuality is not a mental illness—a medical condition—psychiatry must address the viability of psychoanalysis and the need for psychological observation of individuals *not* in already in treatment.

The second is research. Throughout the game, individuals will propose studies to the ‘Research committee.’ If they are approved, the class will break into a ‘lab’ session and conduct that research. The propose *must* then report the findings at the next conference.

The third is the responsibility science has society. Obviously, the demedicalization of homosexuality was motivated because psychiatrists became aware that the stigma of ‘mental illness’ was doing more harm than good—it was causing mental illness, not curing it. But the Goldwater affair, and the Supreme Court’s citation of Kenneth Clark’s work on children internalizing prejudice in the *Brown v. Board of Education of Topeka Kansas* decision weigh heavily on the Psychological and Psychiatric communities.

Table 5.14 summarizes these and other issues that may arise during the course of the game. As with all Reacting Games, other than the first issue—demedicalization of homosexuality—when and how these issues appear is a matter of game play, so the schedule is ultimately up to you.

Issue	Partisans	Session
Homosexuality <i>is / is not</i> a mental disorder	Spitzer, Socarides, Bieber, Marmor	Week 1, session A.
The 'medical model' <i>is / is not</i> a suitable approach to understanding the human mind	Szasz, Albee v Spitzer and all the MDs	
Psychoanalysis <i>is / is not</i> scientific.	Psychoanalysts v. Cognitivists and Behaviorists	
Mental disorders should be classified according to <i>observable symptoms / underlying mechanisms</i> .	Spitzer and the behaviorists v. psychoanalyst faction	
Mental illness / mental disorder <i>are / are not</i> genuine medical conditions and therefore must be treated only by medical doctors.	Psychiatrists (MD) v. Psychologists (PhD)	
How do we define a mental illness / disorder—regardless of whether it is or is not a medical condition?	Spitzer, main three factions	
Are mental health norms defined in terms of statistical frequency of a behavior in the population, or in terms of the 'ideal' behavior of an individual?	Anastasi and Bieber	
The mentally ill <i>must / should be</i> treated exclusively by <i>psychiatrists / psychiatrists</i> and <i>psychologists / exclusively psychologists</i>	Albee	
What does scientific research on the mind look like? Does it involve modeling and adductive reasoning, or is it limited to correlations between of observable behaviors?	Cognitivists and Psychoanalysts v. Behaviorists	
What are the ethical limitations on psychological / psychiatric research?		

What is the proper role of an intellectual—specifically a social scientist—in a democratic society?	Chomsky, Clark and Albee v. Tyler and Bieber	
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Table 3.1: Major Issues for debate

Note that while these questions overlap, none of them ought to determine any of the others. One could believe, for example, that psychoanalysis is scientific, but *bad* science. Or one could believe that the medical model *is* a suitable approach, but classifying mental disorders under any criteria is a mistake. The range of positions on these issues can be found in the characters in this game.

3.2 Basic game play

Each week (two or three sessions, depending on your schedule) of game play reenacts one annual conference of the APA in the early 1970s. The five weeks of game play cover the years 1971–1975. In reality, these conferences are huge events. There are presentations on current research, symposia on issues facing the discipline, administrative meetings for various committees, public discussions and votes on proclamations, and publishers promoting their products. In game play, players will present papers, propose research projects, vote on resolutions and grants, and hold committee meetings.

Each conference opens with a presidential address. The position of President is both an honorific and administrative position. The President is often elected based on his or her reputation as a researcher, but he or she also must have keen leadership skills and knowledge of the policies and procedures of the organization's committee structure. Since these two areas of expertise do not always appear in the same person, an individual is **not** elected directly to the Presidency by the membership. Rather, the membership holds an annual election for the **Vice-President**, who is then promoted to President after a year of sitting on the Board of Directors and observing the inner workings of the political system. After a President's year in office, he or she becomes the **Former President** and continues to serve on the Board.

The Board of Directors is composed of the President, the Vice president, the Former President and *two* members elected at large each of whom serving three year terms. For classes smaller than 16, the Board of Directors will be limited to the current President, the Vice President and the Former President. The executive secretary, who serves without vote, is responsible for maintaining the minutes of the Board of

Directors and taking whatever actions the committee approves during its meetings.

At each year's conference, the following events occur:

1. Presidential Address
2. Board of Directors circulates proposals to be considered by the membership.
3. Symposia on topics proposed by membership, as scheduled by the program committee
4. Open sessions for presenting current research (papers or plenary addresses), as scheduled by the program committee.
5. Board of Directors meets in open session.
 - (a) All committees and task forces report
 - (b) Old Business (tabled from previous meeting)
 - (c) New Business
6. Discussion of any proposals circulated in step (2)
7. Create and administer ballots for proposals.
8. Election for vice president, who assumes that position at the close of that conference
9. Election for member-at-large on the executive committee (if necessary)
10. Executive committee meet in closed session, if necessary.

Game play may take many forms in the classroom. You may be questioning the President about his or her vision for future directions in psychological or psychiatric research, engaging with or participating in a symposium with two or three of your colleagues on a contentious issue of the day, participating in research, evaluating research results, discussing proposals in committee, or even arguing about reports from task forces. The schedule of events will be left to the Program Committee, so it is very important that they distribute the schedule early and widely. See Section '4.2 on page 27' for more on the potential forms of conference activities.

3.3 Basic Principles

Academic associations like the APA not only provide their members with a forum through which they can socialize, share ideas and test or their most recent work; they also represent their discipline to the public. An association's President is often called upon to act as a spokesperson during times of controversy. And the associations often define—sometimes very carefully—the qualifications someone must have to become a member.

During 1970s, the APA is being called upon to represent their membership in both of these ways. It is important, therefore, to ensure that actions of the APA—whether it be the election of a new President or the publication of a statement—represent the will of the membership. The association exists to serve the membership, not the other way around.

Credibility Points

In academic culture, reputation is capital. But unlike other reputation-based cultures, your reputation depends entirely on the quality of data you produce, your creativity and insight in designing research, and your ability to explain the ideas in clear, simple terms.

At the beginning of each conference (i.e. Week), each member of the APA is given one 'credibility point' in the form of a small slip of paper. Credibility in academic life is capital—those with it have power, those without it do not.

In this game, we treat 'credibility' like a currency. Each player starts with a different amount, depending their publication record so far. Players *gain* credibility by presenting papers or research proposals that are of interest to other players, or by serving in positions of power, such as the President or Committee chair.

At the end of each week (one "conference"), each player must give a credibility point to the speaker they believe presented the best paper, or the best research proposal. No player may keep the weekly credibility point for himself or herself.

When an individual retires from a formal position (President, committee, etc.) the members of that board or committee can confer upon that person a 'gift' of credibility points for his or her "distinguished service to the APA". The members of the board / committee who are voting on this award must do so unanimously. They must work with the game master to determine how many credibility points to give, but no one shall be given more than 5 for distinguished service.

Credibility points, once awarded, *can* be stockpiled by faction or bartered with other players. They can be traded, hoarded, used for

bribes, pressure, blackmail, etc. In short, all the things that money is used for in the real world. But, just like credibility in the Academia, they have no value outside the game.

Running for various positions ‘costs’ you credibility. In game play, you must turn in the equivalent number of credibility points when accepting a nomination or declaring that you will run. These are non-refundable.

There is much to be gained in having a position of power—including more credibility when you complete your distinguished service, but it takes credibility to get credibility. The chart below is suggested, but may be modified by the Game Master.

Position	Cost
Vice-President of the APA	10
Member of the Board	5
Chair, Research Committee	3
Chair, Nomenclature Committee	3
Chair, Program Committee	1

Table 3.2: Credibility ‘costs’ for service to the APA

See 3.8 on page 107 for a description of the structure and responsibilities of each committee.

In the final vote (see ‘Victory Objectives’ below), the credibility points can be turned into votes—although the specifics are left to the game master to decide.

Reputation & Replication

Even as you strive for more credibility, reputation is paramount. Disagreements are always professional: you can disagree vociferously with an opponent, yet respect his or her abilities as a scientist. Attacking a fellow member personally, or using obvious rhetorical fallacies can damage your credibility. In game play, the board can vote to ‘censure’ a member *at any time* and strip him or her of acquired credibility points. A simple majority will do.

At some point in your life—probably 7th grade—you were told that ‘The Scientific Method’ consists of creating hypotheses, designing experiments to test those hypotheses and then formulating a new hypothesis that can be tested. But most importantly, you were probably told that scientific inquiry is distinguished from non-scientific inquiry insofar as scientific inquiry can be replicated by a stranger.

That may be true, but notice that these claims are almost always made with the modal verb ‘can.’ The sad truth is that few, if any, attempts at replicating scientific studies ever occur. The academy is not

set up to encourage studies that reproduce known results. At educational institutions, tenure requirements force scientists to concentrate on producing novel results. Industries employ scientists to create new drugs, new techniques and new treatments, not to check the results of old ones. And practitioners are usually so swamped with the demands of their clientele that they may not be able to engage in research at all, let alone focus on replicating someone else's research.

All of that means that the academic culture relies heavily on reputation. It is generally assumed that academics are honest and that their results could be replicated, but will not be. Many people just assume that the prestigiousness of one's academic post reflects the reliability of their results—it really is easier to publish a paper if you are from Harvard than if you are from a middle-tier public institution.

Conferences, such as the APA, rely on a system of peer review to ensure that the papers presented represent the best research available. But peer reviewers are often selected in virtue of their reputation for rigorous research and high standards. Members are elected to positions of leadership because of their reputation as psychologists or psychiatrists, not because of their knowledge of the rules of order for a public meeting. As you propose new research and present your findings at the conferences, remember that what counts is not entertainment value or charming banter, but quality of insight and rigor in data collection.

The Responsibilities of the President

While the presidency of the APA is largely an honorific position, it does come with some serious responsibilities. It is awarded by election of the membership, according to standards known only to them. Traditionally, it has been given to significant figures in the field at the end of their careers as a kind of 'lifetime achievement' award (for example, Koffka in 1958) and advocates for new and promising avenues of research early in their careers. The first president in this game, George Miller, best exemplifies the latter sort.

The President's main responsibilities include presiding over the meetings of the Board of Directors, and opening each conference with a plenary address. These addresses provide the President a huge forum to reflect on recent trends in the discipline and potential future directions.

In reality, all Presidential addresses of the American Psychological Association are published in the *American Psychologist*, which is available at Jstor.org. Potential presidents should consult the journal for examples.

3.4 Victory Objectives

The game normally ‘ends’ with a decisive vote on the definition of ‘Mental Illness,’ probably in 1975. There are three basic definitions that ought to be advanced, which are included in table 3.3.

Advocates	taheadDefinition
APA Task Force	A Medical disorder is a relatively distinct condition resulting from an organismic dysfunction which in its fully developed or extreme form is directly and intrinsically associated with distress, disability, or certain other types of disadvantage. The disadvantage may be of a physical, perceptual, sexual, or interpersonal nature. Implicitly there is a call for action on the part of the person who has the condition, the medical or its allied professions, and society. A mental disorder is a medical disorder whose manifestations are primarily signs or symptoms of a psychological (behavioral) nature, or if physical, can be understood only using psychological concepts.
Behaviorists	A person can be called ‘mentally ill’ when he or she exhibits emotional or behavioral functioning which is so impaired as to interfere substantially with his or her capacity to function in society.
Psychoanalytic	A person is mentally ill when he or she suffers from internal conflicts that may be subconscious or unconscious, manifesting behavior that is unwanted or disturbing to the individual or the society.
Szasz	There is no ‘thing’ called ‘mental illness,’ only sets of behaviors that may be destructive to an individual and his or her society.

Table 3.3: Factional Definitions of Mental Illness

Factional affiliation and objectives vary from individual to individual.

3.5 Special Rules

If possible, each player must serve on at least one committee at some point during the game.

Writing Tasks

Every player will write and present at least once during the course of the game. Your role sheet should specify the specific tasks you need to complete.

A special note for data-driven writing tasks: don’t say ‘studies have shown that’ or (in the 1st person) ‘I have shown that...’, show it. That will probably mean that you will have to go to the library, find the original research reports of your character, and familiarize yourself

with the basic research design, as well as the relationship between the evidence presented and the thesis that evidence is reported to support. If that sounds like a great deal of effort, it should. Above all, remember that you're not writing a report on this person or position, you are playing the person and defending the position. So don't write about what you (as the character) believe, write as if you believe it.

Proposals to the Board

Proposals should be formal. They should be distributed to the membership at least 24 hours before a vote is called. It is usually sufficient to distribute proposals during the first session of a conference year, and hold a vote during the second (or third). Ample time for discussion should be allotted for each proposal.

Formal proposals begin by laying out the reasons for the proposal with a series of 'WHEREAS...' clauses. It should then state the resolution. For example, in 1969, the APA resolved:

WHEREAS in many state legislature, bills have recently been introduced for the purpose of repealing or drastically modifying the existing criminal codes with respect to the termination of unwanted pregnancies; and *WHEREAS* termination of unwanted pregnancies is clearly a mental health and child welfare issue, and a legitimate concern of APA; *BE IT RESOLVED* that termination of pregnancy be considered a civil right of the pregnant woman, to be handled as other medical and surgical procedures in consultation with her physician, and to be considered legal if performed by a licensed physician in a licensed medical facility.

You should follow this format when drafting your proposals. Proposals in the incorrect format cannot be distributed.

Papers and Symposia

Academic conferences are opportunities to discuss and disseminate information you have gathered to support your views. The method of presenting those ideas or that data, however, can vary a great deal. The APA currently supports two kinds of presentations: Individual Reports and Symposia. Individual Reports are talks given by a single researcher or group of researchers. Symposia are 'panel' presentations, where a group of presentations are offered on a theme or a specific problem.

The Program Committee (see 4.2 on page 27) is encouraged to experiment with new kinds of presentations, including posters, round tables, workshops, and even exhibits, if they choose.

The Program Committee reviews all proposals for both individual reports and symposia. The guidelines for proposing a report are included in the official ?? on page ??.

Research Grants

Research grants are 1–2 page proposals specifying a research project you'd like to carry out. These are submitted to the Research committee (see 4.2 on page 25) and follow the form specified in the 'Call for Research Grants', which follows on ?? on page ?. If you win a research grant, you will be expected to present your findings at the annual conference that immediately follows the successful completion of your grant.

Reading aloud

Presentations at academic conferences are evaluated by peers primarily on the basis of the content presented, not the style of presentation. While it is important to practice good public speaking skills—making eye contact with the audience, modulating one's voice, etc.—getting the data right is more important than being entertaining. For that reason, this game will allow 'reading' of some experimental reports. Experimental reports highlight the data presented, and carefully articulate the structure of the experiment performed. It is also advisable to bring handouts of any important charts or datasets for the membership when presenting data.

Note that we're in 1975, so powerpoint will not be allowed. You can, with the approval of the game master, requisition an overhead projector and print our data or charts on transparencies.

Presidential addresses, however, should be carefully crafted general lectures. These should appeal to the membership of the APA, which includes many individuals from a variety of backgrounds. They should also be understandable by the general public, as the President is often seen as a spokesperson and advocate for the discipline.

Symposia and presentations to the committees, however, must be delivered without a transcript. Cue cards or notes are allowed, but in these cases, the speaker must strive to make a personal connection with the audience, and hence, must not simply read a prepared speech.

3.6 *Definitions used by the APA*

The following are quoted from current websites of the American Psychological Association and the American Psychiatric Association.

Definition of "psychologist"

APA policy on the use of the title "psychologist" is contained in the General Guidelines for Providers of Psychological Services, which

define the term “Professional Psychologist” as follows:

Psychologists have a doctoral degree in psychology from an organized, sequential program in a regionally accredited university or professional school.

The APA is not responsible for the specific title or wording of any particular position opening, but it is general pattern to refer to master's-level positions as counselors, specialists, clinicians, and so forth (rather than as “psychologists”). In addition, it is general practice to refer to APA accredited programs as “APA-accredited” rather than “APA approved.” The position as described must be in conformity with the statute regulating the use of the title psychologist and the practice of psychology in the state in which the job is available.

Definition of “psychology”

Psychology is the study of the mind and behavior. The discipline embraces all aspects of the human experience — from the functions of the brain to the actions of nations, from child development to care for the aged. In every conceivable setting from scientific research centers to mental health care services, “the understanding of behavior” is the enterprise of psychologists.

Definition of “psychiatrist”

A psychiatrist is a physician who specializes in the diagnosis, treatment, and prevention of mental illnesses and substance use disorders. It takes many years of education and training to become a psychiatrist: He or she must graduate from college and then medical school, and go on to complete four years of residency training in the field of psychiatry. (Many psychiatrists undergo additional training so that they can further specialize in such areas as child and adolescent psychiatry, geriatric psychiatry, forensic psychiatry, psychopharmacology, and/or psychoanalysis.) This extensive medical training enables the psychiatrist to understand the body's functions and the complex relationship between emotional illness and other medical illnesses. The psychiatrist is thus the mental health professional and physician best qualified to distinguish between physical and psychological causes of both mental and physical distress.

Sample call for papers and symposia.²

² This entire section is adapted from the "Call for Papers and Symposia" from the 1957 *American Psychologist*.

Call for Papers and Symposia

Introduction

I. The Program committee herein announces a Call of Papers and Symposia for the annual convention of the APA. Please read the relevant rules carefully if you plan to take part in the program. *Note especially the deadlines, the form for abstracts of contributed papers, the forms for symposium proposals, and the proper persons to receive your correspondence.* The pertinent references have been collected into the box on this page for your convenience.

This year will begin with a plenary address by the President. Current plans allow for 2 individual reports and 1 symposium. The Board of Directors will meet in open session to hear proposals from the membership.

Kinds of Programs and Sessions

The meetings regularly contain many kinds of programs and sessions, including research papers, symposia, group discussions, addresses, business meetings, and film sessions, as well as other events, such as reunions, dinners, social hours and the like. In general, requests for information should be submitted to the Program Committee.

The APA Program Committee has full responsibility for the conference program. Persons planning to submit proposals that fall outside the lines outlined herein should consult with the chairman of the APA Program Committee for special instructions.

The chairman of the APA Program Committee should also receive all requests for scheduling of nonsubstantive program activities such as reunions, dinners, social hours, headquarters space, luncheons, and the like. To insure publication in the program all requests must be received by the close of business on the Friday before a conference.

Who may participate

Volunteered Papers

Any member of the APA may read a paper, provided that it has been accepted by the program committee.

Non-members

A non-member of the APA may read a paper provided that he is sponsored by a member of the APA and provided that his qualifications and the quality of his paper are acceptable to the program committee. The APA member who agrees to sponsor a nonmember must submit the abstract of the nonmember's paper to the chairman of the program committee with an accompanying description of the nonmember's scientific qualifications plus the names of recognized scientific societies in which the nonmember holds membership.

Symposia and invited addresses

The program committee may invite distinguished nonmembers to contribute to the program as special speakers or as participants in symposia. Because symposia often involve topics extending beyond the competence of APA members, it is frequently desirable to include nonmembers as participants. Acceptance of a distinguished speaker or of a symposium proposal by the Program Committee constitutes the require sponsorship of nonmember participants.

Limits of Individual Participation

Over the past several years the APA's Board of Directors working with the program committee has developed several ground rules for the limits of individual participation in the annual convention program. These rules were designed to ensure the widest possible participation by APA members and also to prevent troublesome conflicts in the time schedule. Briefly, the rules have been that each member may present no more than one volunteered paper and that each member may, in addition, participate in no more than one additional session such as a symposium, discussion group, and the like. It is still strongly recommended that maximum participation be limited to one symposium or discussion group plus one paper.

Individual Reports

Unless otherwise indicated, four ten-minute papers will be scheduled for each 50-minute session. In instances of multiple authorship the person whose name is listed first will be expected to present the paper.

A paper previously read at the Annual APA Convention may not be read again, unless it is a substantial elaboration (additional findings, etc.). Two papers which report highly similar findings from a cooperative project may not be read at the convention.

The APA Board of Directors have voted that, for reasons of economy, this rule should be followed: Abstracts printed in the American Psychologist are limited to 100 words. However, it is recognized that more detailed information will be needed by the Program Committee for use in the selection of papers. The procedures for research reports and other individual reports are described below.

Research Reports

Each author of a research report must submit a 100-word abstract (1 copy) for publication if the paper is accepted, and also a 300-word summary (4 copies) for committee publication. If the author desires, tables presenting results may be submitted with the 300-word summary. Not more than one page of tables should be submitted. This means that all the data should have been obtained and the analysis completed at the time the abstract and summary are submitted to the Program Committee.

Other individual reports

Theoretical papers, case studies, and the like are perfectly acceptable for the program. *The 100-word abstract of a non-experimental paper must, however, be accompanied by a manuscript of the complete paper in draft form.* The complete manuscript is required in order that the Program Committee may be in a better position to judge the contribution to the program.

Form of abstracts and summaries

All abstracts and summaries must be typed on one side of the paper only, double-spaced throughout and on 8 1/2" X 11" paper.

The 100-word abstract

The purpose of the published abstract is to provide information concerning the psychological relevance of the paper. .. primarily to justify its scientific validity. Hence abstracts should be concerned with content ... rather than with method and technique unless the purpose of the paper is essentially methodological). Examples of good short abstracts from many different fields may be found in *Psychological Abstracts*.

Abstracts must be limited in length to 100 words (not counting title, author and institution). Longer abstracts will not be printed but will be listed by title only.

Abstracts should not contain tables, drawings, footnotes, or bibliographic entries, as such material will not be printed.

The following outline should be followed in preparing the abstract:

Title of Paper:	
Author(s):	Sponsor (if any):
Institution(s):	
<i>Text of abstract (not to exceed 100 words)</i>	

Because the 100-word abstract will be sent to the printer, do not underline or type anything with all capital letters. The type written abstract should be checked and proofread carefully, since it will be printed in the form in which it is submitted. Authors are urged to give careful thought to the visual aides that will best facilitate presentations of their data. If slides are used, members are urged to consider presenting graphic and tabular material on paper. As a new procedure, authors of accepted papers will be asked to indicate their preference for audio-visual support.

The 300-word summary

The text of the summary will normally include a statement of the problem, subjects used, procedure, results and conclusions.

Summaries must be limited in length to 300 words (not counting title, author, and institution). The 300-word summary may be accompanied by not more than one page of supplementary tables, drawings, footnotes, etc.

The form for submitting the 300-word summary should be exactly the same as for the 100-word abstract except, of course, for the longer text.

Four copies of the 300-word summary and the supplementary tables, etc. are required. *Author, sponsor, and institution should appear on the first copy only.* The first copy is the one that will be used by the Program Committee Chair in the creation of the Conference Proceedings. The other three copies without identifying data will be used by the Program Committee for judging the acceptability of the paper.

Where to send abstracts and summaries

Copies of the abstract and summary of a volunteered paper should be sent to the chair of the Program Committee.

Symposia

A symposium provides for several prepared papers on a single theme or problem. It is an excellent form of meeting if the aim is to bring to an audience several diverse or even contradictory views, presented by a number of "experts." The expectation would be that all papers would first be read; then there would be a substantial period for interchanging of views among the speakers (and invited discussants, if desired); finally, a brief period for questions or points raised from the floor. It is important to plan the time so that there is real interaction among participants after the papers. In order to realize the unique value of the symposium the chairman should select speakers at an early date, arrange for the participants to exchange papers ell in advance of the session, and ensure that ample time is allotted for discussion among the participants and contributors from the audience

Initiation of symposia

Any member of the APA may suggest a symposium topic to the chairman of the Program Committee. Such proposals must be made at an early date as a successful symposium requires much planning and correspondence. A member may also submit a fully organized symposium for the Program Committee's consideration.

Form of symposium proposals

Suggestions to the Program Committee

When a member only suggests but does not organize a symposium, he should indicate the title of the topic for discussion, comment on the significance of the topic, and list the names and addresses of the proposed chairman and other participants. Such suggestions should be sent to the appropriate divisional program chairman well in advance of the deadline to allow for ample time for planning.

Member-Organized symposia

A member may organize a proposed symposium in complete detail and present it for approval to the Program Committee. Each such proposal should indicate the title of the symposium and list the names of the chairman and participants, together with the titles of participants' contributions, if these titles are to be published. *Five copies of the completed symposium plans must be submitted to the Program Committee by the deadline.*

Symposia organized by the Program Committee

Symposia may be organized independently by the Program Committee or in response to the requests of members.

Special Programs

The Program Committee should feel free to try new kinds of programs. Forums, discussion groups, panels, round tables, conferences, and workshops are often valuable alternatives to papers and symposia. Members are invited to send suggestions for new types of programs to the Program Committee. Special sessions should be suggested well in advance of the deadline to allow for ample time for planning. Procedures for initiating special programs should follow in general the procedures for initiating symposia.

Miscellaneous Meetings and Special Sessions

APA boards, committees, etc. desiring business meetings must send to the Chairman of the APA Program Committee by the deadline a statement of estimated attendance, time required, time and day preferred and whether arrangements for luncheon and dinner are desired.

Luncheons, dinners and social hours may be scheduled for non-APA organizations if they send their request to the chairman of the APA Program Committee by the deadline. Such scheduled events will be listed in the condensed program.

Audio-Visual Presentations

APA members, commercial film producers or distributors who wish to present new films, film strips, or other audio-visual aids (including sound recordings) should make the Program Committee aware of this fact at the deadline. The committee will review and select the audio-visual materials which are to be presented as part of the APA program.

Exhibits

APA members are encouraged to exhibit apparatus, teaching aids, and other materials of scientific and applied interest. Commercial agencies are invited to request arrangements for exhibits. All commercial exhibitors will be charged for space. Those wishing to arrange for exhibits must write to the chairman of the Program Committee.

Table 3.4: Sample call for proposals for APA conference

Sample call for research grants.³

³ This section adapts language from the mission statements of the contemporary APA (<http://www.apa.org/about/>)

Call for Research Grants

Introduction

The Research Committee of the APA herein solicits proposals for research that will forward the disciplines of psychology and psychiatry. Note especially the deadlines, the form for abstracts of contributed papers, the forms for symposium proposals, and the proper persons to receive your correspondence. The pertinent references have been collected into the box on this page for your convenience.

Winners will be granted the support of the other members of the class for a period of one class session. The primary investigator must specify in the research proposal how the other students will participate: as subjects, participants, observers or confederates.

Winning grants will be determined by the Research Committee, in accordance with the criteria specified herein. All proposals must be in line with the APA's ethical guidelines which are in force at the time of submission.

Research Supported

The APA seeks to advance the creation, communication and application of knowledge of the mind and behavior to benefit society and improve people's lives. The APA embraces scientific inquiry into all aspects of the human experience — from the functions of the brain to the actions of nations, from child development to care for the aged. And in every conceivable setting from scientific research centers to mental health care services, "the understanding of behavior" is the enterprise of psychologists.

Additionally, the APA aspires to advance the understanding of psychology and psychiatry as scientific disciplines. To that end, it will support any research that follows the standards of scientific inquiry and contributes to the central goals of the association.

It is imperative that all research supported by the APA must be in accordance with the ethical guidelines published by the APA.

Who May Submit Proposals

Members of the APA

Any member of the APA may submit a proposal for a research grant. APA membership is limited to those meeting the definition of 'Psychologist' or 'Psychiatrist' used by the APA (see p. 10 of the gamebook).

Nonmembers of the APA

As the APA Research committee seeks to further the disciplines of Psychology and Psychiatry wherever they are practiced, the primary investigator of a grant need not be a member of the APA. The primary investigator, however, must be a Psychologist or Psychiatrist as defined by the APA (see p. 10 of the gamebook).

Confederates, Observers and Assistants

Individuals working in psychological research should be engaged in some significant way with the academic pursuit of knowledge. Confederates, observers and assistants in research must therefore be students of psychology or psychiatry, if not psychologists or psychiatrists in their own right.

Limitations of Participation

A primary investigator may submit one (1) proposal annually. An individual may serve as a consultant, confederate, observer or assistant on any number of grant proposals in addition to proposing himself as a primary investigator.

Form of the Proposal

Introduction

Limited to 100 words, the introduction should specify the phenomenon you wish to examine and why. Briefly describe the phenomenon in general, and discuss how it relates to the study of the human mind and behavior.

Background /Review

Briefly describe the history of research into this phenomenon, and why that history is insufficient. Summarize what is already known about the phenomenon, including the background information you gleaned during your literature review.

Rationale

Describe the questions you are examining and explore any possible implications of your study. This includes listing the specific questions you are addressing, explaining how your research is related to the larger issues raised in the introduction. Specifically describe the claims, models or hypotheses you will evaluate with your research. Explain how your research will contribute to our understanding of the mind.

Method and Design

Describe how you will go about collecting data and testing the questions you wish to examine. While novel methods are encouraged, the primary investigator must be able to specify the scientific validity of any methods proposed.

Method: How will you collect the data?

Describe the general methodology you choose for your study, i.e. observational, experimental, etc.

* Explain why this method is the best method for this question.

* Specify who will participate in your study, and why.

* Describe the sample you would test and explain why you have chosen this sample. Include age, and language background and socio-economic information, if relevant to the design.

* Are there any participants you would exclude? Why, why not?

Design

* Describe what kinds of manipulations/variations you would make or test for in order to test your hypothesis(es).

* Describe the factors you would vary if you were presenting a person with stimulus sentences.

* Explain how varying these factors would allow you to confirm or disconfirm your hypotheses.

- * Explain what significant differences you would need to find to confirm or disconfirm your hypothesis(es). In particular, how could your hypothesis(es) be disconfirmed by your data?
 - * Controls: What kinds of factors would you need to control for in your study?
 - * Describe what types of effects would be likely to occur which would make your results appear to confirm, or to disconfirm your hypothesis(es).
 - * Describe how you can by your design rule out or control for apparent effects.
- Procedure
- * How are you going to present the stimuli?
 - * What is the participant in the experiment going to do?
- Analysis
- * How will you analyze the results?
 - * What kind of results would confirm your hypothesis?
 - * What kind of results would disconfirm your hypothesis

Significance and Contribution

References

Where to send your proposal

Three copies of the proposal should be sent to the chairman of the Research committee.

Reports

Research findings should be submitted to the conference committee for the annual national conference following the awarding of the grant. The primary investigator should follow the guidelines found under 'Research Reports' (see ?? on page ??) in drafting his research report. Winning a grant in no way guarantees inclusion in the following year's conference program.

Table 3.5: Call for Research Grants

3.7 *Role of the gamemaster*

The gamemaster's central responsibility will be to ensure that the conferences run smoothly. The gamemaster must therefore maintain a robust relationship with the program committee. In a small class, the gamemaster may prefer to the responsibilities of the program committee for himself or herself.

- Act as secretary to the Board of Directors if there is no preceptor available.
- Remind / cajole the program committee to prepare the schedule at least 48 hours in advance of each class.
- Maintain the election cycle (see the table in the instructor's manual)
- Distribute research reports where appropriate.

3.8 *Outline of the game*

Schedule of Game Sessions

Year—Location	Ses-sion	Activities
1971—Washington DC		
	A	Presidential Address George Miller Symposium: "Psychiatry: Friend or Foe to Homosexuals: A Dialogue," (Dr H. Anonymous, E. Hooker) T. Szasz "The Myth of Mental Illness" Presentation of 'mental rotation' task: gamemaster Marmor "Limitations of Free Association" Proposal from J Marmor Proposal from C. Socarides. Petition from G. Albee. Research report from G. Miller on 'mental rotation' task
1972—Dallas		
	A	Presidential Address Albert Bandura Symposium on Medical Model (G. Albee, T. Szasz) Report from taskforces
	B	R. Spitzer 'The Fiegner Criteria' P. Gebhard on the Kinsey reports H. Harlow 'Lust, latency and love' Research Report
1973—Honolulu		

	A	Presidential Address Paper(s) Reports from taskforces Symposium Proposal to create "Spitzer Taskforce" [other proposals] Research Report
1974—Philadelphia		
	A	Presidential Address Symposium Paper(s)
	B	Open hearings on proposed definition of 'mental illness' [other proposals] Research Report
1975—Chicago		
	A	Presidential Address Open vote of the membership on definition of mental illness. Paper(s)
	B	Symposium: [other proposals] Research Report

Table 3.6: Outline of game sessions

Committee structure

The APA is overseen by a Board of Directors, which is responsible for maintaining the organization, and approving all official public proclamations and publications of the organization. The president, who opens the conference with his or her presidential address, also serves as chair of the Board of Directors during that conference. The secretary of the Board of Directors is responsible for maintaining the minutes for that meeting and implementing whatever policy decisions are required.

In addition to the Board of Directors, there are currently three standing committees of the APA. All standing committees report directly to the Board of Directors annually at the Board meeting. All standing committees have the right to request an open session at the general conference for whatever they wish. If they want to initiate a vote by membership, however, they must file a request with the Board of Directors. If the Board of Directors approves the request, the standing committee can administer a vote.⁴

⁴ The gamemaster may choose, depending on the size of the class, to combine these committees, or assign these responsibilities to the Board of Directors.

Board of Directors

Responsibilities:

- Hold open meetings each conference where topics can be discussed and voted upon.

Powers:

- Issue public proclamations on behalf of the membership.
- Maintain official publications, such as the DSM
- Create ad-hoc committees and task forces, as necessary.
- Oversee and receive reports from the standing committees.
- Censure—can strip any member of credibility at any time. Generally reserved for use of ad hominem attacks or other bad behavior. Any number of credibility points can be stripped.
- Banning—rarely used, but available if necessary. Can place a life-time ban on any member at anytime.
- Confer 1–10 credibility points on retiring board members in recognition of their ‘distinguished service’

Initial Membership:

The membership of the Board of Directors is:

Position	Term
President	Chair of the Board of Directors, serving a 1-year term
Vice-president – elected annually	Serves a 1-year term as Vice-president, automatically promoted to President for the next year at the close of that year’s annual conference
Former President	Serves a 1-year term <i>after</i> their service as the chair of the Board of Directors.
Executive secretary (preceptor), without vote.	
Committee member elected at large	Serving 3-year term.
Committee member elected at large	Serving 3-year term.

Table 3.7: Board of Directors Membership

A sample agenda for a meeting of the Board is available on page 3.9

on page 110.

The membership of the Board of Directors for the course of game-play is contained in table 5.18 on page 61.

Year	Former Presi-dent	President	President-Elect	Member at large 1	Member at large 2
1971	Harlow	Miller	Bandura	Milgram	Albee
1972	Miller	Bandura	Elected 1971	Elected 1971	-
1973	Bandura	1971	Elected 1972	-	Elected 1972
1974	1971	1972	Elected 1973	-	-
1975	1972	1973	Elected 1974	Elected 1974	-

Table 3.8: Terms for Board of Directors members

The Board of Directors is one of a handful of standing committees of the APA. Standing committees are permanent institutions, whose membership is elected by the membership at large. Ad hoc (literally 'after the fact') committees or 'task forces' are created by simple majority vote of the Board of Directors and are tasked with generating a report on a specific problem or area of research. Usually, these are formed when the Board of Directors believes it has inadequate information on a specific subject. For the purposes of this game, ad hoc committees will conduct literature reviews on behalf of the Board of Directors and report to the membership. Ad hoc committees disband after the report is accepted by the Board of Directors.

The Board of Directors has the power to create ad hoc committees or task forces as it sees fit. The membership of those committees may be specified directly by the Board of Directors at the time of creation, left to the chair of the newly created committee to decide, or even determined by popular vote of the membership. That decision is left to the Board of Directors.

Unlike the creation of ad hoc committees or task forces, the creation of new permanent standing committees require a majority vote of the APA membership, not just the Board of Directors. A full proposal for such a committee, specifying its membership structure, voting procedures, rights and responsibilities should be distributed to the membership at least 48 hours before the vote. Dissolving a standing committee requires a majority vote of the membership.

The Board of Directors represents the membership, it does not act in opposition. It is incredibly important, then, that the Board seeks approval from the membership as a whole at every turn. The Board is a capable of assigning duties to various subcommittees on its own, but all matters of policy should be turned over to the membership for an up or down vote.

1. Reports of the committees and task forces
 - (a) Research
 - (b) Nomenclature
 - (c) Conference program
2. Old Business (any items that were tabled at previous meetings)
3. New Business.
 - (a) Discussion of any proposals already circulated
 - (b) Administer votes on any proposals already circulated)
 - (c) Elections for vice-president and expiring member at large.

Table 3.9: Sample Schedule: Board of Directors

Research Committee

The research committee is charged with distributing grants to fund research as well as enforcing the APA's Ethical Standards in the practice of Psychology and Psychiatry (see F).

Responsibilities

- Solicit proposals in the form of a 'call for research grants'

Powers

- Award grants to those proposals it deems excellent
- Hearing and deciding on cases of research ethics, including punishments for violators up to and including removal from the APA for life.
- Add a paper, panel or symposium topic to any conference agenda without review of the Program Committee
- Confer 1–5 credibility points on retiring board members in recognition of their 'distinguished service'

The Research committee should solicit proposals in the form of a 'Call for Research Grants' that specifies both the deadline for submissions, as well as the time frame for reviewing submissions. The Research Committee should revise the enclosed ?? on page ?? to suit their needs.

In the context of the game, winning a grant entitles the bearer to access the student body for a period of one class session, during which time he or she can perform his or her approved research project. After that period, the grantee will be expected to present his or her findings to the membership as a conference paper / report.

The Research committee should take great care in considering the scientific value of each proposal. The APA does not want to be seen supporting poor or biased research! As such, members of the Research committee are strongly advised to carefully consult the '4.3 on page 140 as well as the '4.3 on page 171.

The Research committee is also charged with hearing and ultimately ruling on charges of ethical transgression. The Board alone has the power of censure, but the Research committee can recommend censure to the Board.

The Board of Directors should hold an election each year for a new member of the Research committee.

Initial membership

Members of the Research committee in 1971:

- L. Tyler (expiring 1972)

- K. Clark (expiring 1973)
- J. Marmor (expiring 1974)

Nomenclature Committee

The Nomenclature committee is charged with maintaining the official terminology of psychology and psychiatry. This is embodied by the Diagnostic and Statistical Manual, which is the definitive source for definitions and classifications of mental disorders.

Responsibilities

- Maintain the official diagnostic and statistical manual of mental illness

Powers

- Define what kind of behaviors qualify as 'mental illnesses', thereby (because of the rise of health insurance and managed care) defining what kind of behaviors psychologists and psychiatrists can get paid to treat.
- Confer 1–5 credibility points on retiring board members in recognition of their 'distinguished service'

It determines who can be diagnosed with what, what treatments are considered responsible and what disorders will be covered by medical insurance. If a condition does not appear in the DSM, psychiatrists cannot treat patients with that condition. Given the increasing importance of health insurance in the 1970s, it is vital to have a standardized diagnostic system to support billable treatments.

Members of the nomenclature committee serve for six years.

Members of the nomenclature committee are strongly advised to carefully consult the '2.3 on page 47' of the gamebook.

Initial Membership

Members of the nomenclature committee in 1971:

- G. Albee (expiring 1972)
- J. Spiegel (expiring 1974)
- R. Spitzer (expiring 1976)

Program Committee

The Program Committee is charged with scheduling the conferences.

Responsibilities

- Solicit proposals from the membership
- Create the schedule for each conference
- Confer 1–3 credibility points on retiring board members in recognition of their ‘distinguished service’

Powers

- Decide who gets to speak at any conference, thereby determining who has the ability to gain credibility.

The committee must remember that each conference opens with a public address from the sitting president, and each standing committee has the right to a session at each conference. Not all the standing committees will make use of that time, but each should be approached before the schedule is drawn up.

Proposals for symposia and presentations should be solicited from the general population. The committee meets in closed session (i.e. after class) to determine the conference schedule after reviewing all of the materials submitted. It is vitally important that the symposia and papers accepted represent the highest standard for academic work. They should be judged by that standard alone, not with respect to theoretical commitment or viewpoint. The conference schedule should be made available to the membership at least 48 hours before the conference begins (i.e. by Friday evening before a new conference).

The Program Committee is composed of three members, each of which serve three year terms. Hence, the Board of Directors must hold an election for a new member every year.

The schedule for the conference is set by the ‘Program Committee’, but there are a number of business events that must take place each year. These are outlined in 3.9 on page 110.

Initial membership

Program committee in 1971:

- E. Hooker (expiring 1972)
- A. Anastasi (expiring 1973)
- P. Gebhard (expiring 1974)

Elections

Elections can be confusing to students initially, but it usually resolves after the first conference. They do tend to take on the character of any academic election: a bunch of people sitting around saying ‘not it’. I’ve required *every* member of the APA to hold a position at some point during the game, so that will motivate most students. Ron Gold and some of the other non-APA members can be brought in as members, or, in a smaller class, be given a different role after the demedicalization vote.

The following shows elections that must be held each year, and the character vacating that position in parentheses. Characters serve through to the end of the conference in the year indicated. The VP immediately becomes the president: so while Bandura vacates the position of VP at the end of the conference in 1971, he becomes President at that moment. The election in 1971 is for the VP of 1972, who will be President in 1973.

Year	VP	Board at large	Research (replacing)	Nomenclature (replacing)	Program (replacing)
1971	1972: (Bandura)	A (Milgram)			
1972	1973	B (Albee)	(Tyler)	(Albee)	(Hooker)
1973	1974		(Clark)		(Anastasi)
1974	1975	A	(Marmor)	(Spiegel)	(Gebhard)
1975	1976	B	(elected 1972)		(elected 1972)

Table 3.10: Elections to be held each year

3.9 *Assignments*

Every character has at least one writing assignment included in their role sheet. Guidelines for formatting, word count, etc. vary by context, but all formal requirements are included in this game book.

4 Roles and Factions

4.1 Main Factions

Players represent three factions with different perspectives on not only the nature of scientific inquiry into the human mind, but the object of those studies themselves. A number of independents, representing a variety of academic disciplines, complement these three factions.

It should be noted that unlike some other reacting games, individuals in these factions are not bound to think or vote the same way on the central issues in the game. The factions represent high-level agreement on the nature of the science of the mind, there is almost complete disagreement on all other issues. In fact, when it comes to actual game play, you might find that your votes are more aligned with members of other factions than your own.

Psychoanalysts

Psychoanalysts are split in the classical (Freudian), Jungian and unspecified. The game contains a number of independent psychiatrists who, while they are familiar with psychoanalysis, are not professed members of the faction.

Classical

Classical psychoanalysis can be summarized by five basic hypotheses:

1. First, psychoanalysts hold that the mind is composed of entities in conflict, also known as the *hypothesis of intrapsychic conflict* or **dynamic hypothesis**. In classic Freudianism, the hypothesis followed “the discovery of the unconscious” by Breuer and Freud in 1895 (see 2.4). Traumatic event or fantasies can leave a subject with memories that are unacceptable to the conscious awareness. The conscious awareness defends itself by suppressing the traumatic event in the unconscious by means of repression (see, e.g. *Introductory Lectures on Psychoanalysis*, p. 82, 94 also p. 438). This hypothesis is sometimes called the **psychodynamic hypothesis**.

2. Second, psychoanalysis posits that there is a finite amount of psychic energy available to any given individual. This forms the **Economic hypothesis** of classical psychoanalysis (See Freud, *Introductory Lectures*, p. 26 and 436–7 for the thesis that psychic energy is sexual; p. 340, 442–3 and 466 for an explicit statement. It also appears in *On the Interpretation Dreams*, Ch7). The activities of the mind are “costly,” and hence the mind will optimize its function for the most efficient option.
3. The **topographical hypothesis** is Freud’s most well known: the mind composed of three basic kinds of thoughts: conscious thoughts, pre-conscious thoughts and unconscious thoughts. The term ‘thoughts’ here is used broadly, to include wishes, desires, fears, emotions, etc. Conscious thoughts are those of which we are aware. Pre-conscious thoughts, are not currently conscious, but are readily available to consciousness. The memory of your last birthday, for example, is probably pre-conscious, not unconscious. Unconscious thoughts, which far outnumber the other two categories, are unavailable to consciousness. All these thoughts, however, originate in experience: there is nothing in the unconscious store that is not linked in some way to that individual’s past experiences. (see, e.g. *Introductory lectures*, p. 25)
4. The **genetic hypothesis** claims that human behavior is best explained in terms of the original conditions that cause it. In Freud’s theory, the genetic hypothesis takes the form of his theory of infantile sexuality.
For Freud, all behavior ultimately originates in sexual desire. To summarize briefly: Freud hypothesized that sexual drive, the main source of psychic energy, is present from birth. He is explicit in using the term ‘sexual’ here, but it is sometimes easier to understand if we use a softer term like ‘using one’s body for pleasure.’ Freud repeatedly argues for infantile sexuality by pointing out the noncontroversial pleasure children take in tickling or cuddling, but we wouldn’t necessarily call these ‘sexual’ today. Freud himself, somewhat to his detriment, insisted on the term ‘sexual’ even despite these kind of objections.
This drive towards physical gratification takes various forms throughout our lives, moving through the oral phase to the anal phase to the phallic stage. If the internal drives are left unfulfilled, or the internal conflicts unresolved (which is really two ways of saying the same thing), neurotic behavior results.¹
5. Psychoanalysts differ with respect to the entities that comprise the mind, but most recognize Freud’s basic **structural hypothesis**: the

¹ ‘Neurotic’ behavior results from continuing conflict between the libidinal desires and the ego’s repression techniques. ‘Psychotic’ behaviors result when the libidinal desires assert their reality on the ego. See the discussion of ‘neurosis’ and ‘psychosis’ in the History of the Classification of Mental Illness section below.

mind is functionally divided between the id, the ego and the superego (see *Introductory Lectures*, p. 365).² The *id*, which is totally unconscious, contains the representations of sexual and aggressive instinctual drives. The *ego* regulates and controls the desires of the *id* in relation to the demands of the external world, which are internalized as the *superego*. The *ego* follows the **economic hypothesis**, in seeking to maximize gratification of the instinctual desires while minimizing the amount of psychic energy spent in that process. It achieves this end through the use of various mechanisms of representation and repression (sometimes called 'defense mechanisms'):³

6. **Repression:** The first mechanism proposed by Freud (Breuer and Freud), the *ego* banishes or precludes an idea or feeling from conscious awareness.
7. **Isolation:** Ideas are split off from their associated feelings (affect) and presented as alien or foreign in origin.
8. **Reaction formation:** replacing the unacceptable desire with its symbolic opposite.
9. **Displacement:** unacceptable wishes are removed from their original objects and moved to an acceptable, or at least not-unacceptable one.
10. **Projection:** an unacceptable idea or desire is attributed to someone else.
11. **Undoing:** painful or unacceptable ideas are minimized by overdoing some opposite action in some opposite arena.
12. **Turning against the self:** the original object of an unpleasant desire (usually hate) is replaced with the self.
13. **Denial:** the individual remains unaware of certain aspects of reality that would be painful to recognize.
14. **Rationalization:** the individual convinces himself or herself that their behavior has a logical, reasonable, or at least neutral, explanation in order to avoid the unacceptable cause.
15. **Identification:** usually found during development, a child becomes like another person (usually a parent) in order to deal with separation or loss of a love-object.

These conflicts can be discovered by studying the mechanisms of representation that are used to obfuscate and repress traumatic experiences and latent desires. The mechanisms of representation

² The Introductory Lectures were published before Freud solidified the structural hypothesis using this terminology. The beginnings of the idea, however, is present in the later chapters on neurosis: see, e.g. p. 437–438, where he describes the conflict between the 'libido' and the 'ego'.

³ The Introductory Lectures mention only repression, subdivided into 'condensation' and 'displacement' as mechanisms of the *ego*, but promises further work on the topic (p. 364–366). He began to develop a taxonomy of *ego* mechanisms later in his life, but the full-fledged taxonomy we see here was developed his daughter Anna Freud (1936). *The Ego and the Mechanisms of Defense*. C. Baines (trans). Connecticut: International University Press.

take the object represented (the ‘latent content’) and replace it with a representation (the ‘manifest content’). The relationship between these two can be one of:

- * **Part to whole:** the latent content is fragmented and represented in isolation.
(Freud 1929, p. 147)
- * **Allusion:** the latent content is represented by, in Freud’s words “a caption, as it were, or an abbreviation in telegraphic style.” (Freud 1929, p. 148)
- * **Plastic portrayal:** the latent content is replaced with a plastic, concrete portrayal of it, taking its cue from the superficial aspects of the latent content. For example, the editor of a ‘Survey’ may be represented in a dream as a ‘surveyor’. (Freud 1929, p.149)
- * **Symbolism:** symbols are stable translations of one object into another. The relation between the object symbolized (the latent content) and the object that does the symbolization (the manifest content) is stable in an individual, but may not be stable between individuals. But it is always true that the latent content and manifest content share something in common. It is the task of the psychoanalysts, through the techniques of free association and manipulating transference reactions, to discover the common factors between the latent and manifest content, and hence reveal the symbolic relationships. (Freud 1929, p. 185)

Table 4.1: Mechanisms of Representation

(see [Lecture VII-X] [[#Freud:QdOvAgyZ]])

By revealing these relationships to the subject of psychoanalysis, the ego becomes aware of latent trauma and hence can deal with it in healthy ways, removing the conflict and obviating the neurosis.⁴

Interpsychic conflict is a part of the normal maturation of a healthy adult mind. Neurosis and Psychosis occur, therefore, when this development goes wrong in some important way. Development can go awry through *inhibition* or *regression* (see Freud 1929, Ch 22–23). In ‘inhibition’, portions of function of the ego are held back from development, often because it becomes *fixated* on a particular libidinal instinct. In ‘regression’ an ego that has progressed further than a given developmental stage returns to that stage was a kind of defense mechanism.

The terms ‘neurosis’ and ‘psychoneurosis’:

“refer to a class of psychiatric illnesses characterized by prominent symptoms that have no significant somatic origin. The symptoms include disturbances of feelings (anxiety, depression, guilt), disturbances

of number (i.e. ‘3’ and male genitalia), shape (i.e. long, straight objects such as sticks, umbrellas, posts, trees represent the male organ /hollowness or enclosing space such as vessels, bottles, boxes, trunks and ships symbolize female genitals; apples, peaches and fruit symbolize breasts), function (i.e. penetrating the body: knives, daggers, spears, sabers, firearms, rifles, pistols etc.; producing liquids, such as water-taps, water-cans, etc.; and being capable of lengthening or shortening, such as pencils, hanging-lamps, etc.; defying gravity (i.e. balloons, flying machines and zeppelins also represent the male organ). More complicated representations depend on personal associations with or reactions to objects: the complicated nature of landscapes mean they represent female bodies, sweets represent sexual satisfaction. Activities such as playing games, playing piano, sliding, gliding or pulling stand for masturbation because of the similarity of action. On the same note, rhythmic actions such as dancing, riding and climbing stand in for the sex act itself. Simple associations may appear as well: neckties, which are only worn by men, can symbolize men. (Freud 1929, p. 188–204)

of thought (obsessions), and disturbances of behavior (compulsions and phobic inhibitions), all of which are experienced as alien to the comfort and well-being of the individual" (Arieti 1974, p. 737–738)

Neurosis, then, is explained when the conflict between the desires of the id and the defense mechanisms of the ego go awry: (1) the ego's defense mechanism leaves the drive unfulfilled, (2) the defense mechanism imposes a disguised or symbolic form onto the original drive in order to hide it from the consciousness, and (3) the superego imposes some suffering as punishment for the self-denial, such a guilt.

Psychosis occurs when the id constructs its own reality and imposes it on the ego. The subject can no longer function in normal life—he or she may be beset by hallucinations, persistent delusions, wild mood swings, visual and auditory agnosia, amnesia, etc. It is worth noting that unlike *neuroses*, psychoses may be the result of organic brain syndromes or other physical conditions.⁵ Psychoses not associated with physical conditions include schizophrenia, affective disorders and other reactions.⁶

As the id is the source of psychic energy, unacceptable drives using one of the mechanisms above will not remain repressed forever. As unacceptable drives gain in strength and threaten to reveal themselves, a number of reactions are possible (see Freud 1929, Ch. 19):

- **Anxiety reaction:** a chronic, free-floating anxiety which may have periods of acute anxiety. Typified by feelings of helplessness; although symptoms include phobias, obsessions, compulsions and depression. It is caused by the failure of all the defenses to keep the unacceptable instinctual drives in stable control. (Freud 1929, Ch. 25, p. 452)
- **Phobic reaction:** typified by one or more prominent phobias: and extreme anxiety focused on an ordinary place, object or situation. The mechanism of displacement moves the anxiety associated with the unacceptable drive to a neutral place, object or situation, which then is allowed to flourish unchecked by the defense mechanisms of the ego. (Freud 1929, p. 495–498)
- **Conversion reaction:** what used to be called 'hysteria', it can manifest itself in many symptoms, including spasms, temporary paralysis, visual or auditory agnosia, weakness, shortness of breath, pains, etc. It results when the unacceptable instinctual drive is 'converted' into apparently physical symptoms. (Freud 1929, p. 485, 497–8)
- **Obsessive-compulsive reaction:** the patient is troubled by persistent thoughts that are usually painful in nature. These obsessional

⁵ see 290–294 of the DSM II, which is included in Appendix I on page 605.

⁶ see 295–299 of the DSM II

thoughts interfere in some important way with the patient's ability to engage in a meaningful adult life: i.e. intellectually, sexually, socially or professionally. Anxiety at not following through on an obsessional thought, which often manifests as repeated actions regarding some mundane object, can be severe and often is only revealed by completion of the mundane task in question.⁷ (Freud 1929, Ch. 17)

As an example, classical psychoanalysis holds that obsessive-compulsive reaction can be traced to unresolved conflicts in the anal stage of development, where frustration at potty-training is turned into rage towards one's mother. That rage, in turn, is found to be unacceptable by the ego and repressed through one of the standard mechanisms creating obsessions with objects or scenarios that are symbolically linked to the original frustration. The particular object of obsession is essentially random, as the subject latches onto some mundane object present at the time of the frustration. The choice of obsessional object, however, can provide clues as to the true cause of the frustration, as it is invariably linked, through one of the mechanisms of representation, to the true object. The compulsive aspect of this conditions is an 'acceptable' outlet for the unacceptable rage towards one's mother. Psychoanalysts go on to hold that obsessive-compulsive is often unconsciously aware of his or her rage and may take extreme steps to avoid losing control when provoked.

Psychoanalytic Treatment Psychoanalysis—the process of psychoanalytic treatment—aims at resolving unresolved conflicts that cause neurosis.⁸ The psychoanalyst seeks to align the psychic forces within the individual so that they are no longer in conflict. A psychoanalyst must keep all five psychoanalytic hypotheses—the topographical, dynamic, economy, genetic and structural—in mind during treatment, but in practice, tends to focus on one or two at a time.

Classical psychoanalysis makes use of two basic techniques: free association and manipulating transference reactions. In **free association**, the psychoanalyst removes himself or herself from the patients line of sight (hence the standard couch with the psychoanalyst seated behind the patients' head), and asks the patient to say whatever comes to mind when prompted regardless of logic, order or social constraint. In a relaxed state, it is theorized, these free-associations will reveal the connections between ideas that, when analyzed, explain the relationships this particular patient uses to represent latent content with manifest content.

Freud is often naively criticized for insisting on universal symbolic relationships: cigars always represent penises, for example. But this

⁷ See item 300 in the DSM II for the full taxonomy of neurosis.

⁸ There is something of a controversy over whether psychoanalysis can be used to treat psychosis. While many psychoanalysts believe psychosis and neurosis to be on a single spectrum of mental dysfunction, the psychotic patient's connection to reality is so tenuous that the techniques of free-association and transference threaten to develop the psychosis further, rather than dissolve it.

simply isn't true: classical psychoanalysis is 'empirical' in the sense that there is nothing in the mind that was not put there from experience. The symbolic relationships found in a patient have built up by that patient, based on his or her unique experiences. Where commonalities occur between patients, they are at the level of the language (i.e. symbolic relationships that originate from homophones in German would not be found in an English-speaking patient) or culture (i.e. shared mythology). So while a cigar may represent a penis because of its shape to some, it may represent excrement because of its color to others.

Transference reactions are inappropriate reactions in which the patient reacts to a person or object in the present as if it were a person or object from the past (Freud 1929, Ch. 27). Transference is, in Freud's terms, a 'repetition,' a reliving of an event, relationship, emotion, attitude, etc. with a substitute person or object. Transference can be a very powerful tool for the psychoanalyst, especially when the object that is the source of the unresolved conflict can be projected onto a substitute, and the patient allowed to address the object directly. If a patient's neurosis originates in unresolved anger towards his dead father, substituting an inanimate object for that father can allow the patient to exorcise the anger and hence dissolve the neurosis. Since Freud's masterwork *Dora*, many psychoanalysts have held transference to be the primary tool of psychoanalysis.

In order for transference to work, however, the patient must be willing and capable of suspending his or her 'ego' and regressing to the state where he or she really believes that the substitute is the original source of the conflict. As psychotics live in a state where experienced reality is formed by the psychic desire not reality itself; psychotics are not suitable candidates for treatment via transference.

Throughout treatment, the psychoanalysts must be aware of **resistance**. Resistance is the patient's opposition to treatment. It defends the status quo by maintaining the neurosis or psychosis. Resistance may be conscious, subconscious or pre-conscious. It may hinder or misdirect free association. It may distract via inappropriate and unhelpful transference reactions. It may adapt to novel situations and invent new strategies. As Freud himself said "The resistance accompanies the treatment step by step. Every single association, every act of the person under treatment must reckon with the resistance and represents a compromise between the forces that are striving towards recovery and the opposing ones." (**Psychology:pHtNxV6R**).

The psychoanalytic treatment can then be broken down into four basic steps:

- **Confrontation:** The first step in psychoanalysis: the patient's con-

scious ego must be made aware that there is a problem.

- **Clarification:** The problem is put into sharp focus. Often, this process works with the previous, as minor conflicts give way to greater conflicts.
- **Interpretation:** The process of bringing the unconscious conflict into consciousness.
- **Working through:** the progressive elaboration of resistance mechanisms as they manifest.

There are, of course, many more complications that occur in any single patient's psychoanalytic treatment, but these four basic steps are almost universally recognized.

When embarking on a new treatment, then, the psychoanalyst has three basic aims:

1. To translate the productions of the patient into their unconscious antecedents. The patient's thoughts, fantasies, feelings, behavior, and impulses have to be traced to their unconscious predecessors.
2. The unconscious elements must be synthesized into meaningful insights. Fragments of past and present history, conscious and unconscious, must be connected so as to give a sense of continuity and coherence in terms of the patient's life.
3. The insight so obtained must be communicable to the patient. As one listens one must ascertain what uncovered material will be constructively utilizable by the patient. (Quoted from Arieti 1974, p. 779)

Jung Jungian psychoanalysis is distinguished from classical psychoanalysis by two major shifts in the basic theory.

First, Jungian psychoanalysis holds that the subconscious contains psychical elements that do not originate in the experiences of the individual being psychoanalyzed. As mentioned previously, classical psychoanalysis is empirical about the mind (for an explanation of that tradition, see 2.2 on page 25), holding that the mind comes into the world as a blank slate (*tabla rasa*), and is progressively filled by experiences. The contents of the unconscious must therefore be traceable to discrete experiences in the individual's life. And it is the task of psychoanalysis to discover those experiences.

Jungian psychoanalysts believe they have evidence of unconscious contents that are not explainable by the experiences of the individual. Thus, they hypothesize the existence of a deeper 'collective unconscious' that is composed of 'archetypes' that inform and structure the content of both the unconscious as well as our conscious lives.

Second, on a related note, Jungian psychoanalysis extends the *genetic hypothesis* from Freud's insistence that all psychic energy was sexual energy to include sexual energy as just one of many sources of psychic energy.

For example, Freud originally posited that neurosis originated in traumatic experience in childhood on the basis of self-reports of his case-study patients. He ultimately came to realize, however, that these self-reports were fictionalizations, theorizing that the true cause of his patient's neurosis lay in their infantile fixations. Once again, Jung extends Freud's insight to allow for fixations throughout life. He argues that:

..the moment of the outbreak of neurosis is not just a matter of chance; as a rule it is most critical. It is usually *the moment when a new psychological adjustment, that is, a new adaptation, is demanded*. Such moments facilitate the outbreak of a neurosis, as every experienced neurologist knows.

This fact seems to me extremely significant. If the fixation were indeed real we should expect to find its influence constant: in other words, a neurosis lasting throughout life. This is obviously not the case. The psychological determination of a neurosis is only partly due to an early infantile predisposition; it must be due to some cause in the present as well. (Jung and Storr 1983a, p. 49 "Psychoanalysis and Neurosis")

That leads to the general proposition that Freud's identification of sexual desire as *the origin* of neurosis was far too narrow. Sexual desire is one of the pleasurable instincts that shape our psychology, but for Jung, "psychoanalytic theory should be freed from the purely sexual standpoint. In place of it I should like to introduce an *energetic viewpoint* into the psychology of neurosis" (Jung and Storr 1983a, p. 50).

Jung hypothesizes that the libidinal energies naturally increased when faced with an obstacle, in order to overcome it through adaptation. When that obstacle is too great, the libido retreats and regresses, and the patient reverts to a more primitive "mode of adaptation." The practice of psychoanalysis is the same, however, as Jung theorizes that the energy that the patient needs to overcome the present obstacle and become healthy is attached to these sexual fixations. By bringing past frustrations and maladaptations to light through psychoanalysis, the libidinal energy is free to return to the present-day task: adaptation to overcome the current obstacle.

The task of a psychoanalyst, then, is not only to discover the original traumatic cause of a neurosis, probably buried deep in childhood, but to discover the current obstacle that is perceived as being insurmountable. Jung agrees with Freud that the childhood fixations determine the *form* of neurosis, but unlike Freud holds that they cannot be

considered the *immediate cause* of neurosis.⁹

The difference between practice among the psychoanalytic approaches is emphasis, not technique. As J.B. Wheelwright noted in 1963, “Freud focused on sexuality, Adler focused on power, and Jung focused on growth, which he called individuation.” (quoted in Arieti 1974, p. 817)

For Further reading:

Primary Sources: Freud 1929

Freud and Strachey 1965

Freud and Bauer 1994

Jung and Storr 1983b

Jung et al. 1953

Secondary Sources: Arieti 1974

Behaviorists

Behaviorism holds that psychology is properly limited to the observation, prediction and control of behavior.¹⁰ It typified by four hypotheses:

1. *Internal entities are neither the object of scientific study nor explanatorily relevant to psychology.*¹¹ Behaviorism begins with the deceptively simple insight that while psychoanalytic explanations are framed in terms of psychic entities (ego, id, etc.), quantities (psychic energy) and interactions (the mechanisms of repression), what all psychological theories seek to explain is behavior. These psychic entities, and the massive vocabulary that is required to discuss them, are all hypothetical, posited for the sake of explaining why people behave the way they do. Moreover, psychoanalytic hypotheses require a sharp dividing line between human behavior and animal behavior, which is not born out by empirical observation.¹²

To be scientific, then, psychology must limit itself to observable behavior. The discourse of psychology as a scientific discipline is restricted to those terms that denote observable variables: behavior and environmental conditions, not internal mental states. From characterizing the phenomenon to be studied to offering an explanation, the behaviorist is committed to avoiding all terms that denote entities, quantities or interactions that are internal or unobservable.¹³

A corollary of the thesis, which is frequently highlighted as an independent claim, is that *introspection is not a scientific form of observation*. One might argue (as historical figures like William James

⁹ In Aristotelean metaphysics, the *formal cause* of something is the form of the thing whereas the immediate cause are the events that immediately proceeded the thing in question. The *form* is the pattern or type of thing something is. The immediate cause is what brings that thing into being. In this context, the *form* distinguishes the type of neurosis, the immediate cause is what caused the neurosis to present at this moment.

¹⁰ As with most things in the history of ideas, even this definition is controversial. I've chosen this definition, which reflects Skinner's presentation of Behaviorism in his 1953 *Science and Human Behavior*, chapter 1 because it is the most explicit and radical. Watson defines that the goal of behaviorism as the “prediction and control of behavior,” (1913) leaving out observation. To understand the various different forms of behaviorism that have been posited since Watson's, please see 4.2 on page 131.

¹¹ See, for further explication of this claim Skinner 1953, p. 27–31. Watson does not use the term ‘inner state’, but refers rather to ‘consciousness’, which he (possibly fallaciously) equates with the object of introspection. Thus, after objecting to the unreliability of introspective reports in a laboratory setting he claims “The time seems to have come when psychology must discard all references to consciousness; when it need no longer delude itself into thinking that it is making mental states the object of observation.”

¹² Animals do not have superegos or techniques of repression, so the behaviors explained in psychoanalytic terms should not generalize across species. But they do. Therefore, psychoanalytic explanations are insufficient.

¹³ Watson seeks to eliminate the following misleading and unscientific terms from psychology: “consciousness, mental states, mind, content, introspectively verifiable, imagery, and the like.” (Watson 1913)

and William Wundt did—see 2.2 on page 34 and 2.2 on page 32) that internal states *are* scientifically observable via introspection. Behaviorists, however, reject introspection as scientifically unreliable.¹⁴ Evidence from Wundt and James demonstrates, they argue, that introspective procedures produce different results for different practitioners, and scientific evidence should be replicable regardless of the practitioner.

Behaviorists disagree on whether internal mental states are non-existent fictions or merely unavailable to scientific inquiry; but that is not important here. What is important is that these putative internal mental states do not enter into the scientific study of behavior, or the scientific language that describes and explains behavior.

2. *The proper object of study for psychology is the organism and its environment.* As a corollary of this insight, Behaviorists see behavior as the activity of an *organism*, not the activity of a *mind*. Psychology, for the behaviorist, is not the study of *parts* of an organism (such as the “ego,” “id,” and “superego”) and their relations, but rather the *organism as a whole* and its relationships with its environments. And similarly, explanations offered by Behaviorists refer to organisms, behaviors and environmental conditions, not methods of repression and techniques of representation. Behaviorism restricts its object of study as well as its explanations to the macroscopic scale: things that can be directly observed by the naked eye. In the classical sense, Behaviorism rejects *as non-scientific* explanations in terms of or investigations into things that are larger (societies, cultures)¹⁵ or smaller (brains, neurons).

This thesis unites behaviorism with classical psychoanalysis in opposition to Jung, because it holds that all present behavior is the result of discrete learning events in the individual’s past. But unlike psychoanalytic explanations that posit unresolved psychic conflict to explain behavior, the behaviorist appeals only to previous learning experiences. To discover the reason for a given behavior then, is to discover the patterns of environmental reinforcement (called ‘conditioning’) that have caused the organism to learn this behavior. To cure a behavior is to ‘extinguish’ those conditioned responses in the organism or block those responses by substituting a new and novel response. Behaviorists hypothesize that learning can be physically realized in neurology, and hence, behaviorism is far more simple and plausible a theory than psychoanalysis, which cannot.

3. *The principles of learning are generalizable across species.*¹⁶ Behaviorists argue that given that animals are incapable of introspection—or, if they are, they cannot communicate it—psychological theories

¹⁴ See, e.g. Watson 1913 “Introspection forms no essential part of its methods, nor is the scientific value of its data dependent upon the readiness with which they lend themselves to interpretation in terms of consciousness” and Skinner 1953, p. 30

¹⁵ Recall that Behaviorism was formed in the first half of the 20th century, when Hegelianism was a viable theory of social science. Behaviorists here are not rejecting the plausibility of modern social psychology, anthropology or sociology. They are rejecting the idea of a transcendent spirit that instantiates human culture.

¹⁶ See, e.g. Watson 1913 “The behaviorist, in his efforts to get a unitary scheme of animal response, recognizes no dividing line between man and brute.”

that make use of introspection are incapable of explaining animal psychology. Behaviorism, however, is not. Non-human animals are organisms living in environments that behave in certain regular ways. All of that is accessible to behavioristic science. And as it is an uncontroversial observation that at least some human behavior is the same as animal behavior (caring for the young, for example), it follows that behaviorism can explain regularities that introspective psychology cannot.

Learning

A behavioristic explanation of a given behavior takes the form of specifying the mechanism of learning that caused this behavior. A behavioristic treatment seeks to ‘extinguish’ that behavior through providing an antithetical mechanism.

Learning mechanisms in behaviorism are built on the principles of reinforcement and extinction. Explanation of reinforcement and extinction are always specified in terms of stimulus and response. According to Watson, by ‘stimulus’ behaviorists “mean any object in the general environment or any change in the physiological condition of the animal, such as the change we get when we keep an animal from sex activity, when we keep it from feeding, when we keep it from building a nest.” By ‘response’ behaviorists “mean that system of organized activity that we see emphasized anywhere in any kind of animal, as building a skyscraper, drawing plans, having babies, writing books, and the like.” (1929)

In recent years, B.F. Skinner has popularized operant conditioning and the idea of ‘reinforcing’ a behavior. Anything that increases the likelihood of a response given a stimulus is a *reinforcement*. Positive reinforcement takes the form of adding some “rewarding” object to the environment when the desired response occurs. “Negative” reinforcement usually means the removal of such objects. Reinforcing objects need not be physical, tangible objects, but can something as intangible as the attention of a parent. “Punishment” is a negative condition applied to the organism following a behavior.

A decrease in the probability of a response given a stimulus over time is called *extinction*. In classical conditioning models of learning, the lack of repetitive exposure to reinforcement will result in progressive extinction of the conditioned response.

The mechanisms learning are:

- **Classical conditioning**, which is sometimes called ‘past reinforcement,’ occurs when an unconditioned stimulus, such as the presentation of food, causes an unconditioned (‘natural’) response, such as salivation. These ‘natural’ stimulus-response patterns are called

"embryologic responses," and they are raw material of a classical conditioning paradigm. In classical conditioning, the conditioning intervention in the embryological response occurs by pairing a 'conditioned stimulus' (such as the ringing of a bell) with the unconditioned stimulus. After repeated exposures, the original unconditioned response can be removed, and the response (now 'conditioned') will occur when the subject is presented with the conditioned stimulus. These basic pairings between conditioned stimuli and responses can be generalized over time, so that any loud noise, for example, may cause salivation.

- **Operant conditioning** differs from classical conditioning insofar as the conditioning intervention occurs after the response, rather than concurrent with the unconditioned stimulus. Operant condition introduces the possibility of promised reinforcement, which would occur when the promise of future reinforcement causes behavior.

Behaviorism as a treatment in psychiatry Behavioral treatments in psychiatry¹⁷, like behaviorism in psychology, follows from a simple insight: psychiatric treatment aims at the cessation of maladaptive behavior. Changing behaviors is accomplished through conditioning. Therefore, treatment for "mental illness" entails conditioning patients out of the behaviors that are deemed maladapted through the standard mechanisms of learning.

Like psychoanalysis, behavioral therapies restrict themselves to neurosis, not psychosis.

There are two major kinds of inhibition therapies found in the literature:

- **Reciprocal inhibition**, developed by Wolpe, involves diminishing the maladaptive behavior by conditioning a new behavior in response to a given stimulus that is incompatible with the undesired behavior. For reciprocal inhibition to work, the maladaptive behavior *must be* incompatible with the new conditioned behavior. Aversion therapy, which exposes the subject to the object of desire and conditions a new negative response, is a form of reciprocal inhibition.
- **Transmarginal inhibition**, also known as *flooding*, involves exposing the patient to strong examples of the stimuli for prolonged periods.

Other inhibition therapies, such as 'retroactive inhibition' are usually forms of reciprocal inhibition.

¹⁷ For more on the complicated history of the relationship between psychoanalysis and behaviorism, see Hornstein, Pickren, and Dewsbury 2002.

Further Reading:

Primary Sources: Skinner 2005

Watson 1913. Also available at: <http://psychclassics.asu.edu/Watson/views.htm>

Watson 2013

Secondary Sources: Hornstein, Pickren, and Dewsbury 2002

Wolpe 1958

Wozniak 1997 Also available at <http://www.brynmawr.edu/psychology/rwozniak/behaviorism.html>

Cognitivists

Cognitivists reject the behaviorists' conjecture that scientific psychology is limited—as *scientific* psychology—to observable behavior. But neither do they seek to reestablish introspection as a valid observational method. Cognitivists agree that scientific evidence must be observable. But they disagree that the explanations of behavior must necessarily be in terms of observable macro-objects like organisms and environments. Cognitivists see the mind/brain as an information-processing system; therefore an adequate scientific explanations would take form of specifying the mechanisms by which information is processed—including positing algorithms or modeling neural mechanisms that would generate the behavior in question. The difference between the Cognitivists and the Behaviorists is not about the experimental methods they follow, but rather about the structure of a scientific explanation.

Thus, cognitivism distinguishes itself from behaviorism in terms of a meta-theoretical thesis which rejects the half of the first behavioristic hypothesis that *internal entities are explanatorily irrelevant to psychology*. It does not reject the other three, or the corollary of the first, *that introspection is not a form of observation*.

Cognitivism grew slowly between 1955 and 1965, in part because it was not an ‘intentional’ revolution like Behaviorism. George Miller’s 1956 paper “The magical number seven, plus or minus two: Some limits on our capacity for processing information,” is one of the classics of cognitive psychology, although the term ‘cognitive psychology’ does not appear in it. The first use of ‘cognitivism’ belongs to Ulrich Neisser who published a book of that title in 1967. (Neisser 2014)

Miller argues that human’s short-term memory behavior is limited to seven items plus or minus two. These ‘items’, however, need not be individual atomic units like Ebbinghaus’ nonsense syllables. Miller hypothesized that brain could ‘chunking’ information into groups, which then could be easily remembered. To borrow a classic example

from Bechtel and Graham, the sequence A, B, C, B, B, C, N, B, C, C, B, S would be difficult to remember on its own, but if it is ‘chunked’ into ABC, BBC, NBC, CBS, remembering it is simple. According to Miller, “There seems to be some limitation built into us either by learning or by design of our nervous system, al limit that keeps our channel capacities in this general range.” (1956, p. 86) (see 2.2 for a historical introduction.) Miller’s paper in included in the appendix.

Further Reading

Primary Sources: Miller 1956
Miller 1962

Secondary Sources: Bechtel and Abramahson 1999
Baars 1986
Leahy, Pickren, and Dewsbury 2002
Stillings et al. 1995

4.2 Brief Sketch of the Game Characters

Characters are listed alphabetically by faction. Characters with a ‘*’ will only be included in large classes.

Psychoanalysts

Richard Green, MD Professor of Psychology, UCLA*

Professor of Psychology and UCLA, Green is most well known for his groundbreaking studies of ‘sissy boys’ and ‘tomboy’ girls, conducted with John Money of Johns Hopkins University. Green’s recent essay “Mythological, Historical and Cross-Cultural Aspects of Transsexualism”, which is reprinted in the book he co-edited with his mentor John Money Transsexualism and Sex Reassignment (1969), traces the “longstanding and widespread pervasiveness of the transsexual phenomenon.”

Notable Work

Green, R. & Money, J. (1961) “Effeminacy in prepubertal boys; Summary of eleven cases and recommendations for case management.” Pediatrics 27(2), p. 286–291

Green R. & Money J (eds) (1969). Transsexualism and Sex Reassignment. The Johns Hopkins University Press (November 1, 1969) ISBN 0-8018-1038-8.

Robert Hopcke Psychotherapist, San Francisco, CA (Jungian)*

Robert Hopcke is a counselor, with degrees in both psychotherapy and pastoral counseling, best known for his successful Jungian practice in Bay Area in California.

Harold Lief, MD Professor of Psychiatry at the University of Pennsylvania (Jungian)*

President of the American Academy of Psychoanalysis in 1967, Harold Lief is Professor of Psychiatry at the University of Pennsylvania. He is best known for his advocacy for greater emphasis on sexual education in medical schools.

Notable Work

Leif, H. (1964) "The Psychological Basis of Medical Practice" Post-grad Med J 40:355 doi:10.1136/pgmj.40.464.355-a

Judd Marmor, MD Psychiatrist, Hollywood, CA (Freudian)

The 'Psychiatrist to the stars', Judd Marmor has built an impressive psychiatric practice in L.A., after having immigrated to the US from Britain after serving in the British Navy during WWII. Rumor has it that many of the popular portrayals of psychoanalysis in the movies today are based on you.

Initial Member of the Research committee, term expiring 1974.

Notable Work:

Marmor, J. (ed.) (1965). Sexual inversion: The multiple roots of homosexuality (pp. 83107). New York: Basic Books.

Charles W. Socarides, MD Professor of Psychiatry, Columbia University and/or Irving Bieber, MD Professor of Psychiatry, NYU Medical College (Freudian)

Irving Bieber is Professor of Psychiatry at New York University Medical College and Charles Socarides at Columbia University. Socarides and Bieber have spent most of their career treating and studying male homosexuality. Bieber is primary author of the 1962 study Homosexuality: A Psychoanalytic Study of Male Homosexuals is, in many ways, a response to the Kinsey Report. It reports on a study of 106 male homosexuals and 100 male heterosexuals seeking psychoanalysis for various problems. According to Socarides and Bieber, homosexuality is a neurotic adaptation to unresolved conflict, usually originating in the Oedipal stage of development.

Notable work

Bieber, I. (1962). Homosexuality: A Psychoanalytic Study: By Irving Bieber, et. al. New York: Basic Books, New York

**John P. Spiegel, MD Director, Lemberg Center for the Study of Violence,
Brandeis University**

World-famous for his study of combat fatigue, co-authored with Dr. Roy Grinker in the 1945 book Men Under Stress. Grinker and Spiegel argued, quite persuasively, that combat fatigue was not a result of a character flaw, but rather the social circumstances of war. It should, therefore, be treated, not punished. Spiegel is a former president of the American Academy of Psychoanalysis.

Initial member of the nomenclature committee, term expiring 1974.

Notable Work

Grinker, R. & Spiegel, J. P. (1945) Men Under Stress American Psychological Association. Was once available print-on-demand, but is not currently: www.apa.org/pubs/books/4320127.aspx

Behaviorists

Albert Bandura, PhD Professor of Psychology, Stanford

Initially serving the APA as Vice president (or President-elect) of the APA in 1971, will become president in 1972. He is therefore an initial member of the board of directors.

Bandura was trained in Behaviorism while at the University of Iowa, where Hull's advocate Spense taught. He was not, however, attracted to the strict mathematical-deductive model proposed by Hull, tending towards the work of Tolman. After graduating Iowa, he went west to work with other like-minded Tolman followers. Currently, Bandura is a Professor of Psychology at Stanford University. His work on 'social learning,' which was started by his 'bobo-doll' studies, is widely known. Many expect his presidential address in 1972 to both explain his notion of 'vicarious reinforcement,' and articulate the relationship between his behavioristic approach and Miller's new 'cognitive psychology'.

Bandura was elected as a Fellow of the APA in 1964.

Notable work

Bandura, A. (1965). Vicarious processes: A case of no-trial learning. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 2, pp. 1–55). New York: Academic Press.

Harry Harlow, PhD Professor of Psychology, University of Wisconsin

Initially 'former' president, serving on the board of directors.

Harlow is most well known for his series of experiments on separation anxiety in baby rhesus monkeys, Harry Harlow has become one of the most important advocates for behaviorism in the APA today. Harlow's primate lab at the University of Wisconsin is widely

recognized as one of the top places for training young researchers in experimental psychology. Harlow won the Society for Experimental Psychology's Howard Crosby Warren medal in 1956 and the National Medal of Science in 1967. He served as President of the APA in 1970.¹⁸

Notable work

Harlow, H. (1958) "The nature of love" American Psychologist 13(12) 673–685 On Psych Classics: <http://psychclassics.yorku.ca/Harlow/love.htm>.

¹⁸ For the purposes of the game, 1970. In reality, 1958–1959.

Evelyn Hooker, PhD Emeritus Professor of Psychology, UCLA

Evelyn Hooker studied with Karl Meunzinger and Robert Yerkes, pioneers in the fields of animal behavior. Starting in the 1950s, Hooker became interested in human sexuality. In 1953, she won a grant from the National Institute of Mental Health (NIMH) to study the mental health of 'non-patient, non-inmate homosexuals'. Hooker showed that if homosexuality itself were removed from the diagnostic information, homosexual men were no more likely to be diagnosed as 'neurotic' than heterosexual men.

On the program for the first class with Dr. H. Anonymous as a panelist on the topic 'Psychiatry: Friend or Foe to Homosexuals: A Dialogue'

Initial member of the Program committee, term expiring 1972.

Notable work

Hooker, E. (1956). A preliminary analysis of group behavior of homosexuals. Journal of Psychology, 42, 217–225.

Cognitivists

Noam Chomsky, PhD Professor of Linguistics, MIT

In 1971, Noam Chomsky is a quickly rising star in the academy. Currently a professor of Linguistics at MIT, his work is revolutionizing the field, changing the very idea of linguistics from the descriptive study of existing languages to the understanding of how languages result from formal (logical) rules. Chomsky is also a harsh critic of Skinner's radical behaviorism. His review of Skinner's 'Verbal Behavior' is widely seen as a devastating blow to behaviorism. It is contained in the appendix.

Notable work

Chomsky, N. (1959). "Review of Skinner's Verbal Behaviour" Language 35: 26–58. Electronic copy of 'review' with preface: <http://cogprints.org/1148/0/chomsky.htm> (included in the appendix)

Chomsky, N. (1966). Cartesian Linguistics New York, 1966

George Miller, PhD Professor of Psychology, Harvard

President of the APA in 1971. When the game begins, Miller is serving on the board of directors and responsible for the Presidential address to open the first game session. Miller was trained in behaviorism, but, in part because of his friendship with Chomsky, has developed a new approach he calls 'Cognitive Psychology.' Miller has a side interest in the history of psychology, having worked with E.G. Boring and authored *Psychology: the science of mental life*.

Notable Work

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81–97.

Miller, G. A. (1962). *Psychology, the science of mental life* ([1st ed.]). New York,: Harper & Row.

David Marr, ABD Graduate Student, MIT*

A young neuroscientist from Cambridge, England, not yet finished with his PhD Working on a information-theoretical model of how the brain's visual system works. Influence points: none.

Independents

George W. Albee, PhD Professor of Psychology, University of Vermont (Psychologist)

Clinical Psychologist. Albee worked as the executive secretary for the APA from 1951–1953, along side Harry Harlow's wife. Many of the committee structures and procedures followed today were actually refined by Albee during his time as secretary. In the 1950s, he chaired a task force to survey the resources available to mental health professionals. The astonishing clarity of the resulting report, along with Albee's unwavering commitment to preventative mental health practices caused a great stir in psychiatric and psychological circles.

Author of 'A declaration of independence for psychology' (1964), Albee is a major figure in the often 'acrimonious' debate regarding the suitability of the medical model for understanding mental illness. If any questions arise regarding the APA's decision-making procedures, Albee is the person to ask. He has held every position of responsibility in the organization save the Presidency and Vice-Presidency.

Initial member of the nomenclature committee, term expiring 1972.
In classes over 16, also 'member at large' for the board of directors starting in 1971.

Notable Work

Albee, G. W. and M. Dickey (1957). "Manpower Trends in Three Mental Health Professions." *The American Psychologist* 12: 57–69.

Albee, G. W. (1970) "The uncertain future of clinical psychology" *American Psychologist* 1071–1080

Anne Anastasi, PhD Professor of Psychology, Fordham University (Psychologist)

The 'guru' of psychological testing, Anne Anastasi has developed more psychometrics than anyone else. Her 1954 textbook Psychological Testing is a classic in the field, defining psychometrics for a generation.

Initial member of the Program committee, term expiring 1974.

Notable Work

Anastasi. (1967). "Psychology, psychologists, and psychological testing." *American Psychologist* 22 (4), p. 297–306

Anastasi, A. (1964) *Differential Psychology* 3rd Edition. Macmillan

Anastasi, A. (1954) *Psychological Testing* 1st Edition. Macmillan

Kenneth Clark, PhD Professor of Psychology, CCNY (psychologist)

Kenneth Clark, along with his wife Mamie Phipps Clark, are the authors of a hugely famous study of the racial attitudes of young children. Ken and Mamie presented four identical plastic dolls that differ only with respect to color to black children between the ages of three and seven. When asked which doll they preferred, the majority selected the white doll. When asked to color in a drawing 'the same color' as themselves, most of the black children choose yellow or white crayons. Ken Clark testified as an expert in three of the five cases that were combined into the landmark school desegregation decision *Brown v. The Board of Education*, and his summary was cited by Chief Justice Warren (footnote 11) as influencing the court's decision.

Initial member of the Research committee, term expiring 1973.

Notable Work

Clark, Kenneth B. & Clark, Mamie K. (1939). The development of consciousness of self and the emergence of racial identification in negro preschool children. *Journal of Social Psychology, S.P.S.S.I. Bulletin*, 10, 591–599. [Available at psychclassics: <http://psychclassics.yorku.ca/Clark/Self-cons/>]

Clark, Kenneth B. & Clark, Mamie K. (1940). Skin color as a factor in racial identification of negro preschool children. *Journal of Social Psychology, S.P.S.S.I. Bulletin*, 11, 159–169. [Available at psychclassics: <http://psychclassics.yorku.ca/Clark/Skin-color/>]

D Fordney-Settlage, MD Assistant Professor, Obstetrics and Gynecology Division of Reproductive Biology at the Los Angeles County-USC Medical Center., (gynecologist)*

Assistant Professor of Obstetrics and Gynecology Division of Reproductive Biology at the Los Angeles County-USC Medical Center. Diane Fordney-Settlage has recently come to national prominence as an advocate for women's sexual health following the wide-spread adoption of oral contraceptive.

John Fryer, MD Professor of Psychiatry, Temple University (psychiatrist)

Psychiatrist at Temple University Hospital in Philadelphia, John Fryer is a outspoken advocate for the rights of gay psychiatrists.

Paul Gebhard, PhD Director of the Kinsey Institute, Professor of Anthropology, Indiana University (Anthropologist)

Director of 'The Kinsey Institute' (The Institute for Sex Research) at Indiana University, where Gebhard is a Professor of Anthropology.

Initial member of the Program committee, term expiring 1973.

Kinsey Report

Kinsey, Alfred C. et al. (1948/1998). Sexual Behavior in the Human Male. Philadelphia: W.B. Saunders; Bloomington, IN: Indiana U. Press. Currently out of print, but on google books.

Kinsey, Alfred C. et al. (1953/1998). Sexual Behavior in the Human Female. Philadelphia: W.B. Saunders; Bloomington, IN: Indiana U. Press. Preview available on google books.

Gebhard, Paul H. and Johnson, Alan B. (1979/1998). The Kinsey Data: Marginal Tabulations of 1938–1963 Interviews Conducted by the Institute for Sex Research. Philadelphia: W.B. Saunders; Bloomington, IN: Indiana U. Press. Preview available on google books.

Ron Gold Journalist for Variety (Journalist)*

Independent Journalist for Variety, Gold is attending the APA meeting to cover the protests by gay activists.

Credibility Points: starts each conference with 10 points to distribute.

Frank Kameny and/or Barbara Gittings (Activists)*

Frank Kameny and Barbara Gittings are the co-directors of the Mattachine Society, an organization advocating for greater respect for homosexuals.

Stanley Milgram, PhD Director, Graduate Program in Social Psychology, CUNY (Social psychologist)*

Former Director of Harvard's Department of Social Relations, currently director of the Graduate Program in Social Psychology at CUNY. Milgram is most famous for his 'small world' experiments, which asked randomly selected individuals in the midwest to attempt to deliver a message to a randomly selected individual in Boston through their existing social contacts. It was this study that produced the commonly-held belief that all people are separated by 'six degrees of separation.'

Notable Work

Milgram, Stanley. (1967). "The Small World Problem" Psychology Today, 2 p. 60 – 67

Jean Piaget, PhD Director of the International Center for Genetic Epistemology in Geneva, Switzerland (Developmental psychologist)*

Director of the International Center for Genetic Epistemology in Geneva, Switzerland. Currently 76, Jean Piaget is a legend in Psychology, generally recognized as the first main proponent and theorist of developmental psychology. Piaget's theory of 'Genetic Epistemology' marks a different approach to psychology from either Psychoanalysis or Behaviorism, borrowing from both.

Notable Work

Piaget, J. (1924). Judgment and reasoning in the child, London: Routledge & Kegan Paul, 1928. available at <http://www.archive.org/details/judgmentandreas0007972mbp>

Piaget, J. (1936). Origins of intelligence in the child, London: Routledge & Kegan Paul, 1953.

Piaget, J. (1957). Construction of reality in the child, London: Routledge & Kegan Paul, 1954.

Piaget, J. (1941). Child's conception of number (with Alina Szeminska), London: Routledge & Kegan Paul, 1952.

Piaget, J. (1945). Play, dreams and imitation in childhood, London: Heinemann, 1951.

Robert Spitzer, MD Researcher at Columbia Center for Psychoanalytic Training and Research (Psychiatrist)

Researcher at Columbia Center for Psychoanalytic Training and Research. Spitzer is a brilliant researcher, who has great promise in the field of psychiatry. As a young undergraduate, Spitzer wrote a paper discrediting the fraudulent psychiatrist Wilhelm Reich's 'orgone accumulator,' which he once believed in and sought treatment through.

The FDA used his paper in their prosecution of Reich.

Initial member of the nomenclature committee, term expiring 1976.

Notable Work

Spitzer, R. (1953). "An Examination of Wilhelm Reich's Demonstrations of Orgone Energy" available at <http://www.srmhp.org/0401/reich.html>

Thomas Szasz, MD Professor of Psychiatry, State Hospital of New York at Syracuse (Psychiatrist)

Author of the polemic *The Myth of Mental Illness* (1960) and *The Manufacture of Madness: A Comparative Study of the Inquisition and the Mental Health Movement* (1970), Thomas Szasz has become a major thorn in the side of the psychiatric community. His position as Professor of Psychiatry at the State Hospital of New York at Syracuse was even threatened in the early Paul Hoch, New York's commissioner of mental hygiene.

On the program for 1971.

Notable Work

Szasz, T. (1960). "The Myth of Mental Illness" *American Psychologist*, 15, p. 113–118 available at <http://psychclassics.yorku.ca/Szasz/myth.htm>

Szasz, T. (1974). *The Myth of Mental Illness: Foundations of a Theory of Personal Conduct* New York: Harper & Row.

Szasz, T. (1970). *The Manufacture of Madness: a comparative study of the Inquisition and the mental health movement* New York: Harper & Row (See esp. the chapter titled "The Modern Psychiatric Scapegoat - The Homosexual")

Leona Tyler, PhD Emeritus Dean and Professor of Psychology, University of Oregon, (Psychologist)

Leona Tyler's *The Psychology of Human Differences* is a classic in the psychology of human differences. Tyler has long sought to increase the respect for individual personalities in the practice of psychology and psychiatry. Her 'choice pattern technique' is one way of measuring these differences, and her work is standard fare for all graduate students of counseling.

Initial member of the Research committee, term expiring 1972.

Notable Work

Tyler, L.E. (1969). *The Work of the Counselor*, Prentice Hall

Philip Zimbardo, PhD Professor of Social Psychology at Stanford (Social psychologist)*

Philip Zimbardo has a great deal of promise as a researcher in social psychology, but has yet to gain national prominence.

4.3 *Things you should know*

Basic scientific research

This section is written for the contemporary reader, not the ‘character’ you’ll be playing. The standards of what makes a good experiment have not changed significantly since the mid 1970s, so there should be no historical anachronisms contained herein.¹⁹

Figure 4.1) is a clipping from the Washington Post published in 2004. It’s one of these succinct summations of scientific research that appear all the time in the media—there is even a website (<http://kill-or-cure.herokuapp.com/>) that tracks all the things that the British Tabloid *The Daily Mail* has said either causes or cures cancer.

So what, exactly, is the claim being made here? What evidence is given in support of that claim? If we take the main headline

Dogged crying and lower IQs are linked

as the central claim—the conclusion, as it were,—of the study that was performed, what would count as evidence in support? Against?

What, exactly, does it mean to be ‘linked’ anyway? How are they linked? Does increasing one cause increases in the other?

Fortunately, we have the original journal article for this one available, so I’ll quote the abstract:

Dogged Crying, Lower IQ Linked

Babies older than 3 months who cry uncontrollably without reason are at greater risk of suffering from lower IQ, hyperactivity and discipline problems in childhood, new research has found.

Persistent crying for periods longer than two weeks after that age may suggest subtle neurological problems that are later responsible for developmental deficits, said federal government researchers who published a study last week.

Persistent and unexplained crying when babies are younger than 3 months—commonly known as colic—was not associated with cognitive problems later on.

“Children who had prolonged crying, but not those who had colic, had poorer outcomes on many of the tests of cognitive development,” the researchers wrote in a paper published in the Archives of Disease in Childhood.

The study was based on 327 children in Norway and Sweden who were evaluated at 6 and 13 weeks and had their IQs measured when they were 5 years old. While the study was small, the researchers said the stark differences between the groups strengthened their confidence in the results.

The researchers found no obvious differences to explain the prolonged crying in babies older than 3 months. While maternal smoking has long been associated with colic, it was not associated with prolonged crying after babies were older than 3 months.

—Shankar Vedantam

Figure 4.1: Vedantam 2004

¹⁹ Parts of this section is based on work completed during my Post-Doc at Washington University in St. Louis 2002–2004, in collaboration with William Bechtel, Adele Abrahamson and Carl Craver.

BACKGROUND:

Long term studies of cognitive development and colic have not differentiated between typical colic and prolonged crying.

OBJECTIVE:

To evaluate whether colic and excessive crying that persists beyond 3 months is associated with adverse cognitive development.

DESIGN:

Prospective cohort study. A sample of 561 women was enrolled in the second trimester of pregnancy. Colic and prolonged crying were based on crying behaviour assessed at 6 and 13 weeks. Children's intelligence, motor abilities, and behaviour were measured at 5 years ($n = 327$). Known risk factors for cognitive impairment were ascertained prenatally, after birth, at 6 and 13 weeks, at 6, 9, and 13 months, and at 5 years of age.

RESULTS:

Children with prolonged crying (but not those with colic only) had an adjusted mean IQ that was 9 points lower than the control group. Their performance and verbal IQ scores were 9.2 and 6.7 points lower than the control group, respectively. The prolonged crying group also had significantly poorer fine motor abilities compared with the control group. Colic had no effect on cognitive development.

CONCLUSIONS:

Excessive, uncontrolled crying that persists beyond 3 months of age in infants without other signs of neurological damage may be a marker for cognitive deficits during childhood. Such infants need to be examined and followed up more intensively.

Table 4.2: Abstract from Rao et al. 2004

While the journalist²⁰ used the word 'linked,' the scientific paper makes slightly different claim: that crying "may be a marker" for cognitive deficits during childhood. This word change—from 'marker' to 'link'—has implications that demand investigation.

The former claim—that 'dogged crying' is *linked* to lower IQ—suggests a causal claim: that if you could just stop the child from crying, the child's IQ would remain normal. The second—that crying *may be a marker*—suggests that crying is an early sign of an underlying problem that manifests as lower IQ at a later date. The first implies one-way a causal relationship, the second, that both are caused by an underlying problem.

THE PROCESS OF DRAWING UPON INFORMATION, whether acquired through simple observation or through experiment, to answer questions is the crux of the activity of scientific reasoning. The answers to these questions are what scientists refer to as *hypotheses*. In a scientific investigation, one tests and rejects various hypotheses.

²⁰ The journalist in question here is Shakar Vendantam, who went on to host the "Hidden Brain" podcast on NPR.

A 'hypothesis' is often defined as an 'educated guess'. This overly-simple definition is really only suitable as a starting point. A hypothesis is a conjecture about the way some phenomenon in the world is or behaves. It might be about the origin of the universe, or the mechanisms of memory, but in either case, the hypothesis claims that something is a certain way. If we discover that the thing is not the way the hypothesis claimed, we have disconfirmed the hypothesis.

Look back at the ‘Dogged crying’ abstract. You should note that this is study **not** an experiment. The authors of the study did **nothing** other than observe: they made no interventions to the babies or the mothers. They merely separated them into two groups, and measured those groups 5 years later.

The Paradigmatic experiments

THE ‘JUNIOR HIGH VERSION of the scientific method tells us that to be science, one must observe-hypothesis-experiment-repeat. This simply isn’t true. Science uses a number of different methods, and not everything takes the form of the classic *experimentum crucis* that we were taught in seventh grade.

Constructing good hypotheses and good questions to test hypothesis can be challenging, especially in psychology and psychiatry. In this section, we’ll introduce some basic terminology regarding scientific reasoning and discuss a few model studies—that we call ‘paradigms’—that have influenced how science has progressed.

The first paradigm: Newton’s experimentum crucis The concept of an ‘experiment’ in science is actually relatively new.

As you may remember from 2.2 on page 25, we attribute the birth of the scientific method to Francis Bacon. His study of heat in the *Novum Organon* established a model of scientific reasoning: first, draw axioms from experience; and second, deduce or derive new experiences from those axioms Bacon 2000, Bk. II, §X

1. Catalog all the instances of the thing (“Table of existence and presence”, §XI)
2. Catalog all the instances of things similar to the items listed in (1), but lacking heat (“Table of Absence”, §XI)
3. Catalog all the instances of things that do not have heat but could (“Table of degrees or comparative instances”, §XIII)
4. Finally, catalog all the instances of things that heat cannot be (“Table of exclusions”, §XVIII)

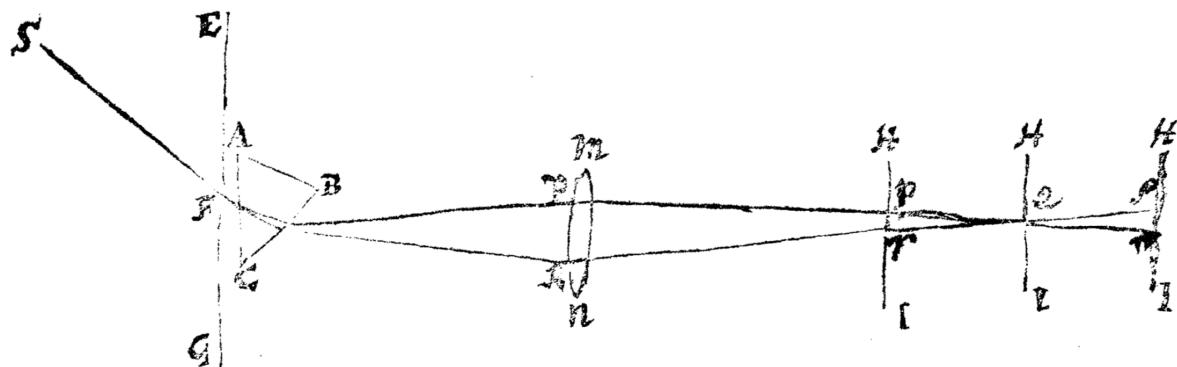
Only after these tables are made are we able to make a ‘First Harvest’, a first attempt to generalize across all these tables and interpret nature. Once this is complete, Bacon suggests we create tables of ‘privileged instances’—27 in total, that specify all instances that are solitary, revealing, concealed, etc. The 14th table is a table of ‘crucial’ or ‘critical’ instances.



Figure 4.2: Photo of poster in abandoned junior high school in Hampstead, Maryland. Photo by Kenny Ditto, former student, 2008. Used with permission.

We take the term from the *signposts* which are erected at forks in the road to indicate amen mark where the different roads go. We have also chosen to call them *decisive instances* and *instances of verdicts*, and in some cases *oracular* and *commanding instances*.

This is where the term *experimentum crucis* comes from, although for Bacon, it was a critical *instance* of observation, not a critical experiment. Robert Hooke, who we now remember for 'Hooke's Law' of springs, was the first to suggest that critical instances could be manufactured in a laboratory, and hence, become *experiments*.



Newton first started his experiments on light and prisms in the early 1670's, reporting his initial findings to the Royal Society in 1671. It is actually his *second* letter on this topic, published in 1672, that is most frequently cited as the primary source. Newton 1672a.

It is notable that Newton himself does not use the term *experimentum crucis* in his original presentations of his experiments to the Royal Society in two letters in 1671 and 1672. In 1672–1673, Hooke viciously attacked Newton's work. In 1673, Newton was a young man of 30, working primarily in Cambridge, not London. Hooke was 10 years his senior, an original member of the Royal society and well ensconced in the power structures of London.

But Hooke had a theory of light, was well known to be 'irascible', and did not appreciate new-comers. Newton responded in 1672 Newton 1672b, and again in 1673 Newton 1673. But even in these, he does not call his experiments 'crucial'. He only uses that term in his *Opticks*, written 30 years later and published a year *after* Hooke's death. Newton 2018

I mention this because, as most students familiar with Reacting will understand, the *actual* history is far more complicated than the digested version we get in most textbooks. The story Newton tells

Figure 4.3: Illustration of Newton's experiment contained in the 1st letter to the Royal Society, 1671

in the *Opticks* of conceiving of and performing a *crucial experiment* deduced by pure logic from the Bacon's tables of induction is nothing more than a post-hoc myth.

But like Franklin's kite, it is the myth, and not the actual history, that matters in understanding Newton's influence on the development of science. So what did Newton show, and why was it 'crucial'?

THE FACT THAT WHITE LIGHT that passes through a prism refracts and takes on the colors of the rainbow was well understood in 1670. What was not understood was whether the colors of the rainbow were existent in the light and 'revealed' by the prism, or whether they were in the prism and 'added' to the white light as it passed through. In short, is the prism breaking light up, or is it acting as a colored filter?

Roughly, Hooke held the second: that light itself does not contain color, but it took on colors as it was 'corrupted' by the prism. Newton, on the other hand, thought that the light's color and the angle of refraction were one and the same, and hence, the colors were contained in the white itself, and were only revealed by refraction through the prism.

A 'crucial' experiment must act like a signpost. It must distinguish absolutely between the two competing theories—like a fork in the road, at a critical experiment, the two theories diverge and cannot be recombined.

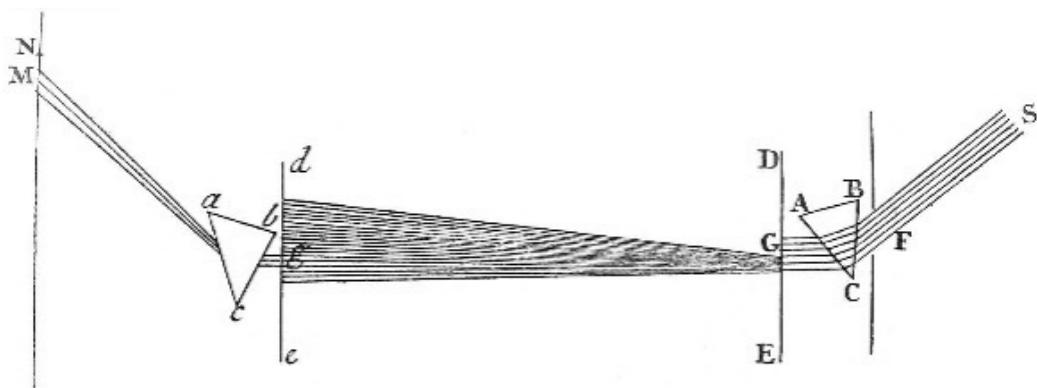


Fig. 18.

Newton and Hooke both predict that light passing through a prism will refract at a distinct angle, and will take on the colors of the rainbow. What Newton needs is a case in which Hooke predicts one thing, and he the opposite.

So he sets up the experiment as designed in 4.4. Newton darkens the room, and opens a small pinhole in a sheet (F) covering the window. The light starts at (S), enters the room through the (F) and passes

Figure 4.4: Illustration of Newton's experiment contained in the *Opticks*, 1704. Notice that the sun is on the right, and the rays move right to left, unlike the first from 1671.

through prism (ABC). It then falls on sheet (DE), which has a hole (G). The light coming through G is a single color. It then passes through another screen and prism. The resultant angle is measured. Newton observes, at least in 1672:

"And I saw by variation of those places that the light, tending to that end of the image toward which the refraction of the first prism was made, did in the second prism suffer a refraction considerably greater than the light tending to the other end. And so the true cause of the length of that image was detected to be no other than that light consists of rays differently refrangible, which, without any respect to a difference in their incidence were, according to their degrees of refrangibility, transmitted to divers parts of the wall."

When light passes through the second prism, it is further refracted, but not changed in color²¹. So how does this observation for a fork-in-the-road between his view and Hooke's? That's a subject of debate. But here's my best take at his reasoning:

1. Either the colors and their respective angles are in the light itself, and the prism uncovers this fact, or the prism adds the colors and the angles by corrupting white light.
2. If the former, then light passing through a second prism would (a) not change (for a color once revealed can't be revealed again) BUT it would (b) double the angle on the second pass.
3. If the latter, the light passing through a second prism would (a) change the color (the prism adds color to whatever light it touches) AND it would (b) double the angle on the second pass.
4. Passing light through 2 prisms produces the same color as passing light through 1 prism (as well as doubles the angle).
5. Therefore, the colors and their angles are in the light itself

Table 4.3: Newton's Experimentum Crucis

This experiment—and this reasoning—comes to be *the* standard for a good experimental design. It is the 'paradigmatic' experiment of its era, the 'paradigm' of good science.²²

The paradigm in experimental psychology: Hermann Ebbinghaus As you may recall from 2.2, in the 1860s and 1870s a handful of researchers in Germany started applying the experimental method to sensation

²¹ Newton himself describes the logic of his *Experimentum crucis* like this:

To determine by Experiments these and such like Queries which involve the propounded theory, seems the most proper and direct way to a conclusion. And therefore I could with all objects were suspended, taken from Hypotheses or any other heads other than these two; of showing the insufficiency of Experiments to determine these Queries or prove any other parts of my theory, but assigning the flaws ad defects in my conclusions drawn from them; or of producing other Experiments which directly contradict me, if any such may seem to occur. For if the Experiments, which I urge, be defective, it cannot be difficult to show the defects. But if value, then by proving the theory they must render all Objections invalid. *Newton 1672a*, p. 5005

²² In contemporary academic English, the word 'paradigm' is used to mean, roughly 'word-view'. That usage descends from this use of the term, as the modern use can be traced back to Thomas Kuhn's *Structure of Scientific Revolutions* (Kuhn 1996). In it, he describes scientific progress as changing eras in which scientists look to a particular experiment as the best model of scientific reasoning, and seek to replicate that experiment in their own work. That experiment is the 'paradigm' for that era of scientific inquiry. Over time, people started using the word 'paradigm' to refer to the era, and the people in it, rather than the experiment they valued.

and perception. Fechner's law was one of the first great successes of this era, as for the first time, it related a physical phenomenon to a psychological one with the precision of mathematics.

Today, Ebbinghaus is frequently characterized as the 'founder' of experimental psychology—as he site 'encyclopedia.com' does—and his experiments frequently taught in intro to research methods courses. This makes his work a 'paradigm' for contemporary psychology. In order to understand what counts as 'good science' in this environment, we must understand Ebbinghaus.

The first step in scientific endeavor into a new domain, according to Ebbinghaus, is to

The method of obtaining exact measurements i.e., numerically exact ones of the inner structure of causal relations is, by virtue of its nature, of general validity. This method, indeed, has been so exclusively used and so fully worked out by the natural sciences that, as a rule, it is defined as something peculiar to them, as the method of natural science.
Ebbinghaus 1885, p. 7

Following Fechner, the primary goal of scientific investigation—perhaps *the* defining feature of science itself—is the creation of mathematically precise descriptions of natural phenomena.

When Ebbinghaus first approached the question of memory, he needed to create an environment, like Newton's darkened room, where comparisons between different tasks could be compared.

The first step is to control "the mass of conditions which have proven themselves causally connected with a certain result", then, one of those is systematically varied, and the resulting effect measured.

EBBINGHAUS SET OUT TO SYSTEMATICALLY MEASURE MEMORY—so he created a protocol for testing his own memory. In order to control his own personal associations with words, which might make them more memorable, he created a list of 2,300 1-syllable nonsense words. These were drawn randomly for each experiment. He then memorized lists and he measured how many he could remember after a given time period—he didn't do this by introspection, but forced himself to actually write down all that he could recall, and check to see how accurate he was. He formalized the process of memorization, going so far as to use a clockwork mechanism to ensure that he spent the exact same amount of time memorizing each list.

There were things he could not control, of course. He recognized that his own accent and 'mother-tongue' might influence the test, the 'conditions of his daily life' might have an impact—he recognizes that his mind is typically fresher in the morning than the evening, for example. The experiments took months to complete, and there could be seasonal effects.

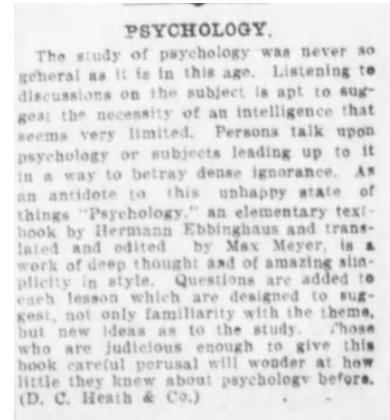


Figure 4.5: Notice of Ebbinghaus' book "Psychology", from the Brooklyn Daily Eagle, Dec 19, 1908

He then varied the length of the lists and compared it against the time it takes to memorize. And he did this repeatedly, recording 518 lists over two periods, 1789–1790 and 1883–1884.

Series of 16 syllables, for the most part read	Each syllable required the average time of	Number of series	Number of syllables
8 times	0.398 sec.	60	960
16 “	0.399 “	108	1728

Series of X syllables	Were in part read, in part recited on an average Y times	Each syllable re- quired an average time of Z secs.	Number of series	Number of syllables
X=	Y=	Z=		
12	18	0.416	63	756
16	31	0.427	252	4032
24	45	0.438	21	504
36	56	0.459	14	504

He also counted, using a string of beads, the number of repetitions it took to memorize a list. This produced, after many variations and trials, the chart to the right, not called ‘The learning curve’.

EBBINGHAUS THEN TURNED HIS ATTENTION TO RECALL AND RETENTION. Working from the commonsense notion that the longer you study, the longer it is retained, Ebbinghaus designed a protocol whereby he would measure the number of repetitions it would take to not re-learn a list after a given amount of time. Perfect recall would ‘cost’ no further repetitions or time. Total failure would (presumably) require the same amount of time as it took in the first place.

As before, this protocol is designed to create a numeric representation (number of repetitions) of a psychological idea (ability to recall). As one might expect, the higher the number of repetitions on learning, the fewer needed after 24 hours to recall the list perfectly.

Measuring in seconds, Ebbinghaus determined the amount of time ‘saved’ when re-learning by repeating the learning in the first place—and the average number of seconds saved by each additional

Figure 4.6: Ebbinghaus’ first table of results in his *Memory*, 1885

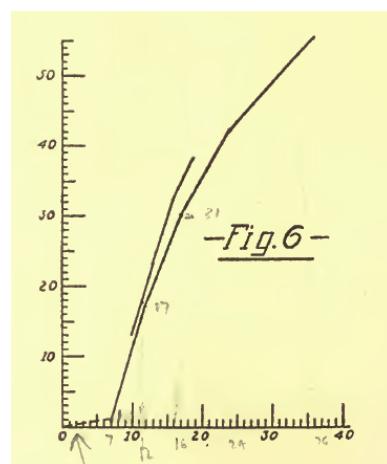


Figure 4.7: Screenshot of “Fig 6” from p. 48, Ebbinghaus 1885. Now called ‘the learning curve.’

repetition. His results are remarkable:

HIS LAST GREAT CONTRIBUTION TO PSYCHOLOGY IS THE 'FORGETTING CURVE'. Using the measurements developed in previous experiments, Ebbinghaus started measuring the number of repetitions needed to restore a list versus the amount of time since the list was memorized. He found that after just and hour, $1/2$ of the original work was required to refresh the list. But after 8 hours, it was only $2/3$ rds, not the whole amount. He also discovered that individual items in the list are retained differently according to their serial position. He summarized his findings as:

The strength of the connection, and therefore the amount of work which is eventually saved, is a decreasing function of the time or of the number of intervening members which separated the syllables in question from one another in the original series. It is a maximum for immediately successive members. The precise character of the function is unknown except that it decreases at first quickly and then gradually very slowly with the increasing distance of the terms. Ebbinghaus 1885, p. 107

While the list of psychological principles attributed to Ebbinghaus is long, it is absolutely true that he noted what is now called the "magic number 7"—that the longest list of random syllables one can remember without practice is 7.²³ Ebbinghaus 1885, p. 47

It's also true that all of these experiments were preformed on an experimental group of one individual: himself. There was no control group and no random sampling of a population. But it is also noteworthy that he recognized these limitations in his study:

The tests were all made upon myself and have primarily only individual significance. Naturally they will not reflect exclusively mere idiosyncrasies of my mental organisation; if the absolute values found are throughout only individual, yet many a relation of general validity will be found in the relation of these numbers to each other or in the relations of the relations. Ebbinghaus 1885, Author's preface, p. v

Ebbinghaus' paradigm is not having a control group, blinding reviewers, or randomizing across a population. Rather, I suspect, Ebbinghaus' paradigm comes down to two things:

1. Ebbinghaus' goal throughout these studies was to describe psychological phenomena in the precise language of mathematics. While *Memory* does contain a few formulae, the whole of the book is consumed with the validity of his measurements of the time it takes to memorize and the costs of forgetting.
2. Ebbinghaus set a standard for transparency of data and thoroughness in controlling potential confounding variables. He addresses

I b. <i>Über das Gedächtnis</i>		II		III		IV	
I. <i>Über das Gedächtnis</i>		After a preceding study of the series by X repetitions,		They were just memorized 24 hours later in Y seconds		The result therefore of the preceding study was a saving of T seconds,	
X =	Y =	P.E.m =	T =	P.E.m =	D =	m =	
0	1270	7	103	16	12.9		
8	1167	14	192	29	12.0		
16	1078	23	295	19	12.3		
24	975	17	407	17	12.7		
32	863	15	574	16	12.9		
40	817	14	685	11	12.9		
53	685	9	816	13	12.8		
64	454	11				12.7	
							m = 12.7

Figure 4.8: Screenshot recall table, p. 56 Ebbinghaus 1885.

²³ George Miller will be presenting his update to this famous result 'The Magic Number Seven plus or minus 2' at the first conference.

every potential confound as it arises and redesigns his protocol to control, or measure that confound. And those he cannot, he labels and presents to the reader. The passage quoted above demonstrates his laudable self-reflection, precisely specifying the weakness in his experiment that he could not control.

Indeed, in reading *Memory*, one cannot help but be impressed by Ebbinghaus' thoroughness and dedication to the transparency of his research. The book is only 117 pages of text, yet it covers 5 years of experimentation and thousands of trials. This, I suspect, is the true paradigm of Ebbinghaus: that psychological measurement must be carried out extraordinarily carefully, with all due attention to potential confounds.

Varieties of Scientific Inquiry

Most scientific studies seek to establish that two (or more) variables are correlated. To say that two variables are correlated is to say, at first pass, that you can predict the value of one given the value of the other. The degree to which your prediction is reliable is the correlation coefficient: a value of 1 means that you can precisely and accurately predict one of the values from the other.

A value of 0 means that any prediction you make would be random in nature. A positive correlation means that as one variable increases, so does the other, and a negative correlation means that as one variable increases, the other decreases.

There are two basic studies that seek to establish a correlation:

- Non-Intervention, i.e. 'Observational studies'
- Intervention, i.e. 'Experimentation'

Another important aspect of scientific inquiry is modeling, where a scientist seeks to *explain* a correlation by positing a mechanism that behaves in the same way in the same conditions. To understand the importance of—and the limitations to—modeling, we'll need to first understand the logic of scientific inquiry as well as the potential and limitations of both observational and experimental research.

Thesis 4.1 (Correlation) Two variables are correlated if you can predict the value of one given the value of the other.

The Logic of evidence

The hypothetico-deductive method Some have characterized the testing of hypotheses in science as a two-step process. The first step of the argument involves the deduction of a prediction from the hypothesis to be tested. Then, after we see whether the prediction turns out to be true, we can draw conclusions about the truth of the hypothesis. If

the prediction turns out to be true, the hypothesis has been confirmed. The argument might run roughly as follows:

If Hypothesis, then Prediction.
The Prediction is true.
Therefore the hypothesis is true.

Table 4.4: Affirming the consequent

If the prediction turns out to be false, the hypothesis has been falsified.

The argument might be put roughly as follows:

If Hypothesis, then Prediction.
The Prediction is not true.
Therefore, the Hypothesis is not true.

Table 4.5: Modus Tollens / Denying the consequent

Anyone who has taken Logic or Critical Thinking will notice an important difference between these two arguments.

The first argument is invalid and the second is valid.

In the first case, it is possible for the both of the premises²⁴ to be true and for the conclusion to nonetheless be false. For example, I could argue ‘If you are not over 21, you cannot drink beer. I am not drinking beer, therefore, I am not over 21.’ Both premises are true, but the conclusion is false. I am both over 21 and drinking coffee. The argument, therefore, does not guarantee the truth of the conclusion, and therefore is not valid.

Let us take an example from the history of science: the positions of the planets can very easily be predicted with Ptolemy’s 2nd Century geocentric model of the solar system, with Kepler’s heliocentric geometrical model, or with Newton’s gravitational theory. We now know that none of these are technically true descriptions of planetary motion (they all have well-known exceptions or make positively false claims); still each makes a number of true predictions. Each of them can make produce premises like ‘If my theory is true, then Venus will rise in the morning and in the evening’, and ‘Venus rises in the morning and in the evening’, but the joining these true premises into an argument can not ensure that the theory is true. In fact, none of them are.

The first argument is a fallacy²⁵ known as the “affirming the con-

²⁴ A ‘premise’ is a part of an argument that is asserted as reasoning for drawing the conclusion. In these two cases, there are two premises and one conclusion, which is separated by a single line. A *valid* argument is one where it is impossible for the premises to be true and the conclusion false. In other words, a valid argument is one where if you agree with the premises, you *must* agree with the conclusions.

²⁵ ‘Fallacy’ is a word philosophers use for commonly-used arguments that do not guarantee truth. There is a long history of cataloging fallacies, and many lists can be found online. Knowing the name of a fallacy is less important than understanding *why* they are fallacious: one could agree with all the premises, yet still disagree with the conclusion.

sequent''. The second premise (the prediction) is the second term, or consequent, of the first premise (If hypothesis, then prediction). The argument states the first premise (If hypothesis then prediction) and then affirms its consequent (prediction), in order to conclude that the hypothesis is correct.

Although arguments of this sort superficially resemble truth-preserving arguments like the second argument above, we have seen that it fails to ensure a true conclusion when the premises are true. We will call these arguments - arguments that superficially resemble deductive arguments but are not truth-preserving - fallacies.

Not so for the second argument. If the hypothesis deductively entails a prediction and that prediction turns out to be false, then something **must** be wrong with the hypothesis.

THE ARGUMENTS ABOVE EMBODY what is known as the "hypothetico-deductive" model of scientific reasoning. The hypothesis entails, deductively, a prediction and the prediction is then checked against the world. If the prediction turns out to be true, the hypothesis is confirmed (though not with certainty). If it turns out to be false, the hypothesis is falsified with certainty.

THIS FACT OF LOGIC, that if the conclusion of a valid argument is false, at least one of its premises *must* be, lead Philosopher Karl Popper to propose a definition of scientific methodology we call "falsificationism." According to Popper, as the hypothetical-deductive' model of science can never *prove* anything, it is science's responsibility to propose bold predictions that can be *falsified*. Scientists seek to disprove theories, not to prove them. And a theory is well-supported when it cannot be—or has not been yet—falsified. Popper's view is still widely held by scientists.

THERE IS ONE MORE COMPLEXITY to the simple hypothetico-deductive method that ought to be mentioned explicitly. Typically, the hypothesis and observed data require additional auxiliary hypotheses to entail the prediction. Suppose that we wanted to test the hypothesis about conservation of momentum. And suppose that we started balls of known momenta at known velocities and then measured their velocities after the collision. In order to know what to predict, we would have to trust our methods for moving the balls at the said velocity, and we would have to trust our techniques for measuring their velocities after the collisions. Our prediction might fail because our instruments aren't working rather than because the hypothesis is wrong. So we need to add explicitly some assumptions about the techniques used to measure a phenomenon.

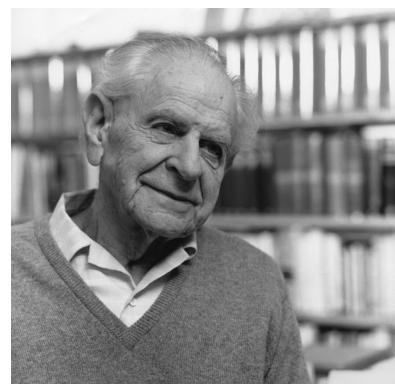


Figure 4.9: Karl Popper, 1990, By Lucinda Douglas-Menzies link [No restrictions], via Wikimedia Commons

Thesis 4.2 (Auxiliary Hypothesis)

An auxiliary hypothesis is a hypothesis about the methods, techniques, materials, or instruments used in an experiment that ensures the formulation of a prediction from a hypothesis.

These assumptions — for example, that our techniques for measuring velocity are accurate — comprise the *auxiliary hypotheses* that inform our prediction. There are always a number of auxiliary hypotheses informing every prediction. In some ways, a given prediction is just one part of a web of hypotheses that come into play in a given theory.

Observational research

We acquire knowledge of the world primarily through our senses. As humans, we rely most heavily, but clearly not exclusively, on vision. Seeing the world seems very straight-forward. We open our eyes and the world impresses itself upon our consciousness.

Take a look at the image to the right. Which head goes with which cheetah? Can you flip your interpretation to see it the ‘other way’? There are *tons* of created images like this, from the Necker cube to Salvador Dali paintings, the way you see the image can change dramatically, depending on the environmental conditions or what you had experienced just before seeing the image.

Our ability to see is, in part, learned. One aspect of ‘successful’ seeing is the ability to recognize things when one encounters them again. Recognition requires the ability to categorize. Seeing, in this robust sense, also implies the ability to organize the categories into a taxonomy or classification system.

Although much scientific research goes beyond mere observation to posit causal processes and mechanisms behind what is observed, observational research plays a vital role in the development of scientific knowledge— both in delineating the phenomenon of study and in validating hypothesis and predictions. When conducting observational research, the question of how we organize observations into categories, as well as how we organize categories into taxonomies, plays a central role. In addition, we must pay careful attention to the notion of a ‘variable’, and how we measure and estimate the values of variables.

Observational research is an important part of the scientific toolkit. Here we’ll present two paradigmatic observational studies that were hugely influential in the 1970s.

Margaret Mead

Margaret Mead was an extraordinarily talented student at Barnard college, completing here Bachelors in 1924. She earned her Masters’ under the supervision of the famous Anthropologist Franz Boas a year later in 1925. In 1926, at the age of 23, she set off for nine months on the Manu'an Islands of American Samoa.

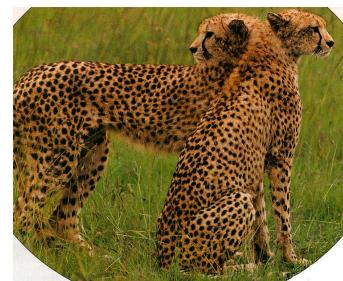


Figure 4.10: Ambiguous Cheetahs, from Pitts, Nerger, and Davis 2007

She was inspired in the trip by Boas, and his concern that problems in the mental life of adolescents, was the result of western culture—specifically our prohibitions on sex—not any individual dysfunction.

But how can one test such a hypothesis? One cannot, because of basic human ethics, separate a bunch of children at birth to raise them outside of western culture. Nor would it be helpful to find groups of children in western culture and follow them, because there are too many variables at play to isolate the influence of sexual repression on mental health. As she argues:

The only method is that of the anthropologist, to go to a different civilization and make a study of human beings under different cultural conditions in some other part of the world. For such studies the anthropologist chooses quite simple peoples, primitive peoples, whose society has never attained the complexity of our own.

This last point is important: the anthropologist has to become ‘embedded’ in the culture to understand it enough to communicate with its people on their terms. Western societies, even those sometimes found on the outskirts, are simply too complex to allow a quick study. Their language alone would take years to master, and their social structures too complex to understand quickly.²⁶ As “she could hope for great intimacy in working with girls rather than with boys”, Mead 1928, p. 9 she choose to study adolescent girls in Samoa.

As her professor Boas writes in the preface to *Coming of Age in Samoa*,

In our own civilization, the individual is beset with difficulties which we are likely to ascribe to fundamental human traits. When we speak about the difficulties of childhood and of adolescence, we are thinking of them as unavoidable periods of adjustment through which everyone has to pass. The whole psycho-analytic approach is largely based on this supposition. The anthropologist doubts the correctness of these views, but up to this time hardly any one has taken pains to identify himself sufficiently with a primitive population to obtain an insight into these problems. We fell, therefore, grateful to Miss Mead for having undertaken to identify herself so completely with Samoan youth that she gives us a lucid and clear picture of the joys and difficulties encountered by the young individual in a culture so entirely different from our own.

Mead 1928

Mead describes society which has very different sexual mores:

“Masturbation is an all but universal habit, beginning at the age of six or seven. There were only three little girls in my group who did not masturbate... Boys masturbate in groups but among little girls it is a more individualistic, secretive practice.” Mead 1928, p. 136

The girls, she writes “deter marriage through as many years of casual love-making as possible” Mead 1928, p. 195

²⁶ I hope the reader recognizes that I am speaking here as Mead did, and as one would in the 1970s'. I don't believe a word of this, as you might expect. To contemporary thinking, Mead's presumption of simplicity of the Samoan culture and language is the core failing of her study.

And as a result, there are few conflicts or troubles in the mental life of adolescent girls. Thus, adolescence is not a difficult time period for *all* girls. As it is a major problem in the west, it must then follow that the ‘storm and stress’ of girls’ adolescence is due to the culture they inhabit, not their biology or process of maturation.

Roger Brown

Roger Brown and his research team at Harvard University in the 1960s visited the homes of “Adam,” “Eve,” and “Sarah” every two weeks during the period they were first acquiring English. The team audiotaped and transcribed everything the children and their mothers said, resulting in three corpora of such high quality that they are still in use. (Although teenagers talk somewhat differently today than in the 1960s, 2-year-olds then and now talk about juice, dogs, hats, more, allgone, etc.)

Especially in the earliest stages, children omit a lot and parents sometimes fill in what is missing. Here is one of Brown’s examples:

Child- Throw Daddy
Mother- Throw it to Daddy

Table 4.6: Brown’s first example

The grammars that Brown’s group wrote to account for such simplified language were far more complex than you might imagine. Even more intriguing, though, were child utterances that had to be changed, not just expanded, to get an adult utterance. For example:

Child- What John will read?
Mother- What will John read?

Table 4.7: Brown’s second example

Brown 1968

Notice that there is *no* attempt by the researchers to intervene in these situations. Parents are not coached to speak to their children in a certain way, nor were they asked to fill in the sentences or avoid making corrections. There is no ‘control’ group, no independent variables, no dependent variables. Brown and his colleagues are simply observing speech of children as it occurs.

An understanding of how children acquire language begins with extensive observation and careful records, focused especially on ages 1–3 years. The key product is a child language corpus, which is a written transcription of all utterances by a particular child and, usually, at least one adult who is present and interacting with the child during one or more periods of observation. As technology has progressed, researchers have gained choices. In the earliest studies (and still occasionally by choice today) observations were recorded in handwritten diaries (motion picture film and soundtracks existed but were not practical in this context). By the 1960s, audio recordings were made at the time of observation — sometimes supplemented by handwritten notes — and then transcribed into written form.

So what are we observing here? At first pass, it may appear that the child just mixed up the word order a bit, and was corrected by a parent. Brown's group proposed a much deeper analysis in terms of what would become known as a "generative grammar."

THE EARLIEST VERSIONS OF GENERATIVE GRAMMAR emphasized the idea (adapted from Chomsky's mentor, Zellig Harris) that a sentence should be viewed as the product of a series of transformations. Consider the following sentences:

John will read what? BASE QUESTION (atypical word order for a question)
What John will read? PREPOSING TRANSFORMATION: moves wh-word (what) to the front.
What will John read? TRANSPOSING TRANSFORMATION: reverses the subject (<i>John</i>) and the auxiliary verb (<i>will</i>).

Table 4.8: Generative Grammar

The final form in the sequence is what an adult would typically say. The transformations and the intermediate form are not directly observed, but Chomsky claimed that they can be inferred and are part of the speaker's linguistic competence.

BROWN AND HIS COLLEAGUES SUGGESTED that the child was in the process of acquiring transformations, and at this point (about 3 years of age) had acquired preposing but not transposing. As a result, the "hypothetical intermediate" became an actual, observed form. Not only did this give a neat explanation of what the child said, but in the other direction it lent support to Chomsky's theory. Brown 1972
Chomsky 1965

What all observational research has in common

- Observational researchers always observe some type of phenomena. (obviously)
- Observational researchers make some sort of record and analyze data obtained from it.
- Observational researchers do not manipulate variables. Reasons to do observational research
- Description (atheoretical research): To obtain a general characterization of the behavior of a particular individual or group in a specified domain and setting.
- Exploratory research (pretheoretical research): To develop hypotheses and/or tentative theories. The researcher obtains a characterization of behavior, but with the goal not only of description but also of explanation.
- Confirmation or falsification (theoretical research): To test hypotheses — which may come directly from exploratory research or have a more complex history. For example, a tested hypothesis may be obtained by revising a hypothesis that was suggested by exploratory research but failed to be confirmed. (Note: If the hypothesis concerns a causal claim, observation alone will not provide strong test; if possible, an experiment should be done.) Two types of observational research
- Naturalistic observation: unobtrusive, passive observation in a natural environment. It is important to minimize any impact of observer bias. For examples, the observers may be research assistants who are blind to the goals of the study.
- Participant observation: the observer interacts with those being observed, typically within a natural environment or context. It is important to minimize reactivity — that is, the influence of the observer's presence on the behavior of those being observed. For example, a participant observer can seek to achieve some degree of unobtrusiveness and passivity by avoiding leadership roles and making written records when out of sight.

TWO OF THE MAJOR RISKS of observational research are *observer bias* and *reactivity*.

As we noted earlier, when an individual expects something to happen, he or she is more likely to notice it. This gives rise to what is known as *observer bias*. A classic example is provided by a study of college students observing flatworm behavior by Cordaro and Ison

2016. Student observers were to record how many head turns and body contractions were made by two groups of flatworms.

Although there were no differences between the two groups, the observers were led to believe group A would have higher rates of both turning over and contracting than group B. The observers ended up recording twice as many head turns and three times as many body contractions for group A. Since there was no reason to expect a large difference in the actual behaviors, the results appear to be due to the expectations of the observers. Such biasing is typically not deliberate — the observers may be trying to honestly report what they observe, but processes unknown to them are influencing their behavior.

Although observer bias cannot typically be eliminated, it can be moderated. One strategy is to use observers who have not been influenced by the expectation. Such observers are characterized as blind. Observers are said to be blind when they do not know why the observations are being performed or any hypotheses being entertained.

A second strategy is to employ multiple observers and evaluating the agreement between them. This is known as 'inter-observer reliability', and is measured by Cohen's Kappa. If observers are influenced by expectations to see more examples of particular behaviors in one group than in another, they are nonetheless likely to differ in which additional cases they detect or which they miss.

Testing causal claims experimentally

In the ideal experiment, the only plausible explanation the two variable changing together is that they are causally connected. All other possible explanations—those based on the effects of other untested variables—have been ruled out by 'controlling' them. The simplest form of an experiment has:

- an independent variable—the suspected cause—is manipulated.
- a dependent variable—the suspected effect—is carefully measured.
- extraneous variables are controlled

If the independent variable is *in fact* causally related to the dependent variable, then altering the value of the independent variable will produce changes in the value of the dependent variable. Moreover, these changes would not be found if the independent variable were not changed.

We will begin with the simplest case, one in which the causal relations are deterministic (that is, a change in the independent variable always produces the same change in the dependent variable). In such

Thesis 4.3 (Independent variable)

Independent variable (manipulated): a variable of interest that is suspected to have a causal impact on the dependent variable, and is manipulated in an experiment to put this to the test.

The 'independent variable' is sometimes called the suspected cause, the IV-manipulated or manipulated IV, or just 'IV', if context makes clear that this is a manipulated IV, not a measured IV.

Thesis 4.4 (Dependent variable)

Dependent variable: a variable of interest that is suspected to be affected by the independent variable, and is measured in experimental or correlational tests of this hypothesis.

The 'dependent variable' is also sometimes called the 'DV', the suspected effect.

cases we sidestep the additional concerns with statistical analysis. But in later parts of this module we will consider such statistical relations as other factors that affect to validity of experimental demonstrations of causation.

THE CORE IDEA OF AN EXPERIMENT is that the researcher *manipulates* the suspected cause and *measures* the suspected effect. By contrast, a study in which the researcher *measures* both the suspected cause and the suspected effect we call a “correlational study.”

If this manipulation produces an change in the value of the variable suspected of depending on the causal variable, we have the strongest evidence we can get that the suspected relation is genuinely causal. If it does not produce the expected changes, any correlation previously noted between the variables may be due to the fact that they are both caused by a third variable. To determine the real cause, we would then need to figure which other variable is the best candidate and manipulate it in a new experiment — perhaps repeating this cycle more than once until we hit the right variable. Recall that we already have some useful terminology to use when causal hypotheses get put to the test in a research study. The suspected effect is the *dependent variable*. The suspected cause is the *independent variable*, which can be further specified as manipulated (if the study is an experiment), or measured (if the study is correlational, in the broad sense of that term that can include comparing group means as well as computing correlation coefficients). Since we are focusing on experiments in this module, the following are definitions of independent variable (manipulated) and dependent variable given in the margin at the right.

Whenever you see the term independent variable used by itself, one must determine whether it is manipulated or measured. This will be important when you evaluate the outcome of the study and ask how well it supports the suspected causal connection.

The most basic experiments manipulate only one independent variable and are limited to two values of that variable. That is, the independent variable is treated as the simplest kind of categorical variable—a binary variable—even if it is based on a score variable. Dependent variables usually are score variables, but need not be; methods of analysis are available for DVs at any level of measurement, all the way down to binary.

MORE COMPLICATED EXPERIMENTS may investigate multiple factors at the same time as well as multiple levels of the same factor. For example, if we were designing an experiment to examine the effects of both *diet* and *exercise* on *weight-loss*. This would be a two-

factor study. And rather than just using two levels, we might use four levels of the exercise factor—none, light, moderate, and heavy—and three levels of the diet factor—high-protein, high-carbohydrate, and balanced. Exercise is a rank variable here and diet is categorical. Usually the statistical analysis will treat both as categorical, which is fine. However, even if the result were statistically significant, it would be hard to interpret results for exercise in which none and moderate led to weight loss and light and heavy did not.

In choosing the levels of a factor, sometimes experience or common sense are very helpful in avoiding results that are inadequate for your purpose or difficult to interpret. For example, if your hypothesis is that eating oatmeal affects cholesterol levels, manipulating diet such that one group gets one teaspoon per month more oatmeal than the other group is unlikely to produce an effect. At the other extreme, manipulating diet such that one group gets no oatmeal and the other must eat 50 cups a day would make the second group overweight and unhealthy. It would be more reasonable to contrast no oatmeal to an easily sustainable amount of oatmeal (perhaps two servings per week of $\frac{3}{4}$ -cup of oatmeal) to a larger, but not ridiculous, amount of oatmeal (perhaps one cup per day).

SOME PREDICTIONS CAN BE TESTED by manipulating an independent variable once. What is required is that the relation between the independent and dependent variable be *deterministic*. That is, each time the independent variable takes a particular value, its effect on the dependent variable should be the same. For example, replacing water with mercury in 100 vacuum tubes in a given place and time should have the same effect (a reduction in height from 34 feet for water to 2 $\frac{1}{2}$ feet for mercury). Research in the physical sciences is often of this type. A few replications may be included, but only as a precaution: the first case basically tells scientists whether or not a prediction is true.

When we study human minds, or any other complex systems, variability is unavoidable. Two individuals of the same species may respond differently to the same chemical, the same psychological stimulus, or the same social situation. So might the same individual at different times. In this situation, causal relations are nondeterministic and hence a single response by a single individual is just one bit of data. To test a hypothesis, many such bits of data must be obtained and, most often, will be averaged together to get an overall value of the dependent variable for each tested value of the independent variable.

Consider the hypothesis that oatmeal consumption is causally connected to the level of cholesterol in the blood, as indicated by the *black*

arrow in the causal diagram below. Specifically, we predict that if people eat oatmeal their cholesterol will be lower than if they do not eat oatmeal. The *question mark* over the black arrow indicates that the causal relationship is merely hypothesized and awaits confirmation (or disconfirmation). The labeled *red arrow* indicates that we will test the hypothesis by manipulating (not just measuring) whether oatmeal is eaten.

This causal graph shows a simple experiment with two variables:

Type of Variable	Variable	Values
Independent variable — manipulated	Eat oatmeal	no, yes
Dependent variable	Cholesterol level	0-500 mg/dl

Table 4.9: Variables in sample experimental design

Thus, researchers begin with a random (or representative) sample from the actual population, and divide that group into sub-samples. In one of the simplest experimental designs, the independent variable has one value that is thought to affect the dependent variable (often called the *treatment condition*) and a neutral value that is thought to have no effect (often called the *control condition*). The experimental manipulation involves delivering the value that is thought to affect the DV to one sample, known as the *experimental* or *treatment group*, and the neutral value to the other sample, known as the *control group*.

- The *experimental group* receives the experimental treatment. It functions as a sample of the hypothetical population in which everyone received the experimental treatment
- The *control group* acts as if it were a sample of the hypothetical population in which no one received the experimental treatment

To determine whether eating oatmeal affects cholesterol levels, we will focus on the difference between the means for the variable cholesterol level for both the experimental and control group and determine whether the difference is statistically significant. If it is, we conclude that eating oatmeal $\frac{3}{4}$ cup of oatmeal per day does cause lower cholesterol. If, on the other hand, there is no difference or the difference is too small to be statistically significant, we conclude that this study failed to provide evidence of a causal connection.

GENERALLY ONLY ONE OR A FEW VARIABLES are used to differentiate the experimental from the control group. But there are many other variables on which individuals may vary. For example, if you were

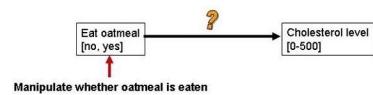


Figure 4.11: Hypothetical experimental design—hypothesis only.

a subject in the cholesterol study, other factors in your life may have changed during the period you were eating cholesterol every day.

Maybe you took up ultimate frisbee during this time, and the vigorous exercise was responsible. Or you were taking a very difficult course, and studying hard made the difference. Thus, from your results alone we cannot distinguish between 4.12 on page 161.

These additional variables are known as *extraneous variables*. In many instances we can be pretty confident that these additional variables will not affect the outcome of the study. For example, deciding to dye your hair or acquiring a cat is not likely to affect your cholesterol levels. But in some cases the variable just might be a causal factor for the dependent variable under investigation. If it does influence the outcome of the study, it is known as a *confounding variable*.

CONFOUNDING VARIABLES CAN ARISE at many different points in the experiment. There may be differences between the subjects comprising the experimental and control group. If some other variable is inequality distributed across the two experimental groups, it could be the cause of the difference observed in the DV.

If the difference is between subjects, the variables are known as *subject variables*.

If the difference is between the procedures followed for the two groups, the variables are known as *procedural variables*.

IT OFTEN TAKES REAL DETECTIVE WORK to identify confounds in an experiment. Take the case of Wilhelm von Osten, who in 1900 purchased an arab stallion from Russia named Hans. Convinced that animals were more intelligent than usually thought, von Osten set out to teach Hans simple arithmetic. Von Osten presented arithmetic problems to Hans on a chalkboard, and Hans responded by tapping his foot the appropriate number of times. Hans seemed to be able to solve even fairly complicated problems including the taking of square roots. Although many were skeptical, numerous mathematicians were brought in to test the horse, and some even concluded that his mathematical abilities equaled those of 14 year old school children.

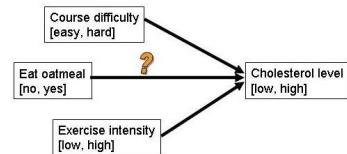


Figure 4.12: Hypothetical experimental design with auxiliary hypotheses.

Thesis 4.5 (Confounding Variables)

Confounding variable: an extraneous variable that co-varies in the experiment with the IV or DV; if it happens to be causally related to the IV or DV, the internal validity of the experiment (the ability of the experiment to test what it tries to test) is compromised.

««« HEAD A confounding variable is frequently simply called a 'confound.'



Figure 4.13: Clever Hans—By Karl Krall (Karl Krall, Denkende Tiere, Leipzig 1912, Tafel 2) Public domain, via

HORSE SENSE, THAT'S ALL.

Is it a fancy, theory or fact that man's ability to control the horse is due to the construction of the animal's eye, by which it magnifies objects and thus sees its master as a huge creature whom it cannot but regard with awe? If the notion had even the standing of a theory it might be strengthened by the feats of "Clever Hans," a horse who has attracted wide interest in Germany, where he has performed, and who has been the subject of much discussion in this country. The relentless method of the German scientist has robbed of its plausibility the claim that the horse possesses intelligence of the type of man's; but it has shown him to have remarkable powers of perception. "Der Kluge Hans" must continue to eat hay and oats, with an occasional dessert of bread and carrots; but he may be excused for arching his fine neck and swelling his sleek flanks, for, unlike some of his superiors, investigation has left him a prince among his fellows.

Clever Hans is a Russian stallion, whom his master has given, ostensibly, a course of instruction such as a child receives in the Prussian primary schools, and who answers questions, tells the time, distinguishes musical notes, etc., by stamping with his hoof. He has been even a greater wonder

Figure 4.14: Article reporting on Clever Hans from the Strong Democrat and Chronicle, Rochester NY published Aug 5, 1906.

To answer skeptics, von Osten brought together a group of two zoologists, a psychologist, a horse trainer, and a circus manager to study Hans over several weeks. Hans performed brilliantly until the psychologist, Oskar Pfungst, varied the experimental setup to conceal the problem from all the humans in the room. The person who wrote the problem on the board was required to leave before the horse entered.

Under these conditions, Hans dropped from scoring 9 out of 10 to 1 out of 10. This suggested that Hans was picking up a subtle, inadvertent cue from one of the humans and using that to decide when to stop tapping his foot.

Once it became clear that there was some other cue Hans was using, interest in him diminished. But if you were interested in discovering just what cue Hans was responding to, more experiments would be needed.

THERE ARE SEVERAL WAYS POSSIBLE confounding variables can be dealt with in a study. Consider the following example:

Research at the University of Pennsylvania and the Children's Hospital of Philadelphia indicates that children who sleep in a dimly lighted room until age two may be up to five times more likely to develop myopia (nearsightedness) when they grow up. The researchers asked the parents of children who had been patients at the researcher's eye clinic to recall the lighting conditions in the children's bedroom from birth through age two. Of a total of 172 children who slept in darkness, 10 percent were nearsighted. Of a total of 232 children who slept with a night light, 34 percent were nearsighted. Of a total of 75 who slept with a lamp on, 55 percent were nearsighted. The lead ophthalmologist, D. Graham E. Quinn, said that, "just as the body needs to rest, this suggests that the eyes need a period of darkness."

Table 4.10: Nightlights and myopia

Dr. Quinn is claiming that there is a relationship between the amount of darkness experienced by children and the rate of myopia in those children when they are older. In short, that lack of exposure to darkness may cause nearsightedness.

We have to be careful to consider the amount of light, and

4.15 on page 163



Figure 4.15: First representation of the experiment, with both variables defined

CONFOUNDING VARIABLES In the University of Pennsylvania study, the first variable is measured by memory—the researchers “asked the parents to recall the lighting conditions.” Individual memories are not the most reliable measurement.

This would only be a problem *if* there was reason to think that the group of parents would systematically skew their memories in some way. To put it another way: if the rate of mis-remembering was constant across all the parents surveyed, then the effect of mis-remembering would be equal in the IV groups. Any difference in the DV would be due to the *differences* between the IV groups, and hence, cannot be the result of the equalized mis-remembering. Therefore, there is no reason to think that inaccurate remembering would change the results of the study significantly.

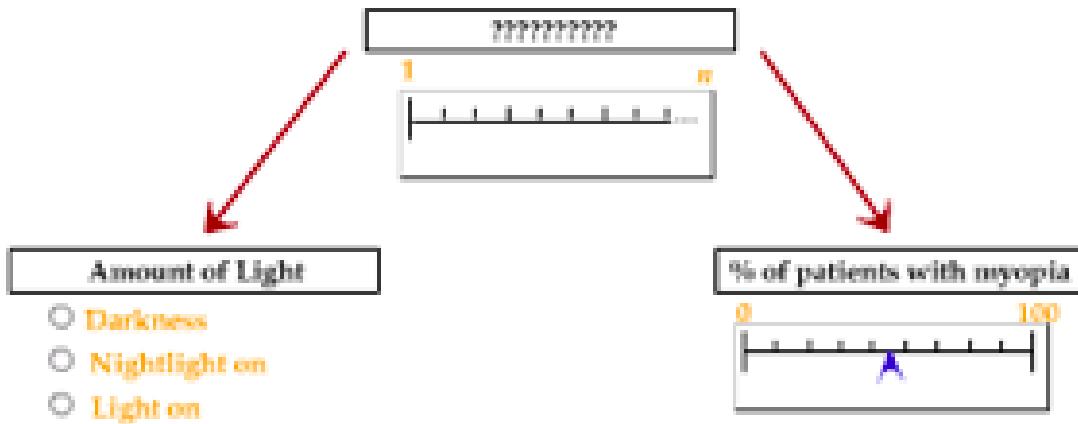
So what we have to ask, to assess whether or not this experiment is valid, is if there is a way in which the memories of the parents would be systematically skewed according to their grouping.

We need to figure out if, perhaps, we have a situation like in diagram 4.16 on page 164:

That there is some unknown third variable that increases the chances of *both* myopia in children and the use of nightlights.

What about ‘vision problems in the parents’? It would stand to reason that parents with vision problems are more likely to have children with vision problems. And it is certainly possible that parents with vision problems would be more likely to use nightlights, so they could enter the child’s room without tripping over anything left laying about.

‘Vision problems in the parents’ is a ‘confounding’ variable—and an corrected study would ‘control’ the confound by ensuring that families participating in the study did not have vision problems of their own, or that for every family with vision problems in the ‘light on’ group, there is a family with similar problems in each of the other



two groups.

THIS STUDY LACKS INTERNAL VALIDITY.. Internal validity looks inside the experiment to its design. The central question of internal validity is: Was the experiment designed so as to determine what was really happening?

Second, notice that the families in this study were recruited from patients of the eye clinic doing the study. Eye clinics, even in famous hospitals, serve the resident population. The University of Pennsylvania Hospital likely treats families who live in and around Philadelphia. That means that this population is systematically skewed towards an urban population.

I have no idea if that means that mis-remembering could be higher than normal. But I do know, having lived in Philadelphia for graduate school—near the University of Pennsylvania—that there is a great deal of light pollution. Thus, even if the study were internally valid, it would not be applicable to families living in a rural environment, where complete darkness is possible at night, unlike in an urban environment.

This lack of generalizability is called ‘external validity’. It is defined in the margin to the right. External validity, looks outside the experiment itself to what conclusions can be drawn from the resulting data.

Assessing Validity

Let's consider another example:

Figure 4.16: Second representation of the experiment, possible confound included

Thesis 4.6 (Internal validity) *The extent to which a study’s design ensures that its result will be in accordance with reality. That is, if the suspected cause really is a cause, the predicted effect on the DV is confirmed; if not, the predicted effect on the DV is not confirmed. To ensure this, other possible causes must be well-controlled.*

Thesis 4.7 (External validity) *the extent to which a study’s results can be generalized. (Relevant questions include: were the participants sampled from a broad population or narrow one? Were they selected in a way that assured they were representative of the population? How well can we describe the population they were sampled from?)*

It is also called ‘Generalizability’

New studies reported in the Journal of the American Medical Association indicate that vasectomy is safe. A group headed by Frank Massey of UCLA paired 10,500 vasectomized men with a like number of men who had not had the operation. The average follow-up time was 7.9 years, and 2,300 pairs were followed for more than a decade. The researchers reported that, aside from inflammation of the testes, the incidence of diseases for vasectomized men was similar to that in their paired controls. A second study done under federal sponsorship at the Battelle Human Affairs Research Centers in Seattle compared heart disease in 1,400 vasectomized men and 3,600 men who had not had the operation. Over an average follow-up time of fifteen years, the incidence of heart diseases was the same among men in both groups.

Table 4.11: Vasectomy Study

The study has well defined variables, and standard measurements. That's good. But why are they pairing men who had a vasectomy with men who did not? We've diagrammed the study's logic in figure 4.17 on page 165.

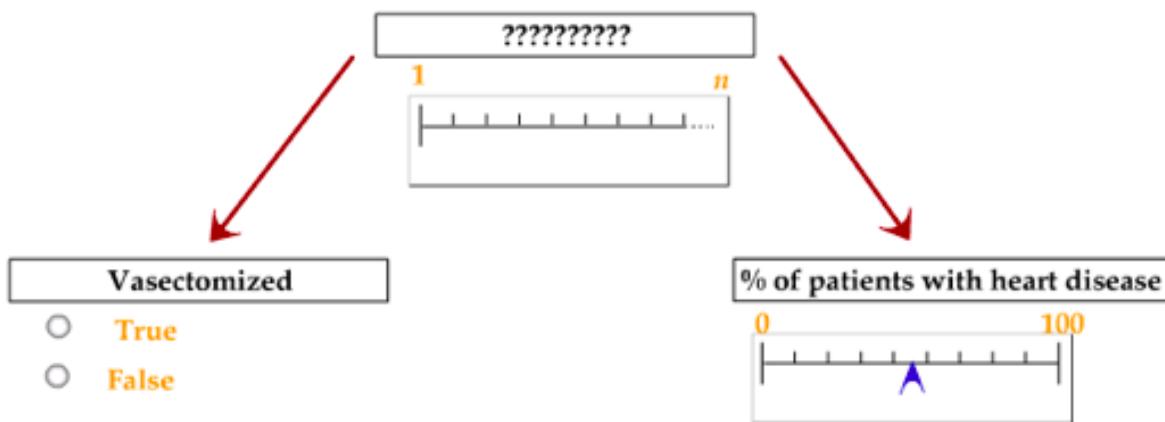


Figure 4.17: Diagram of Vasectomy study

There might be some third cause that affects whether or not men get vasectomies that *also* affects their rate of heart disease. This is not too hard to imagine: what kind of men get vasectomies? Well, heterosexual men in long-term, probably married, relationships. And it is likely that these men have healthier lifestyles and diets than their non-married counterparts.

It is very difficult, if not impossible to control for all the factors that make up 'lifestyle.' But with a large enough sample, that matched individuals with and without a vasectomy according to 'lifestyle', all

those differences would drop out of the statistics as irrelevant. This is diagrammed in 4.18 on page 166.

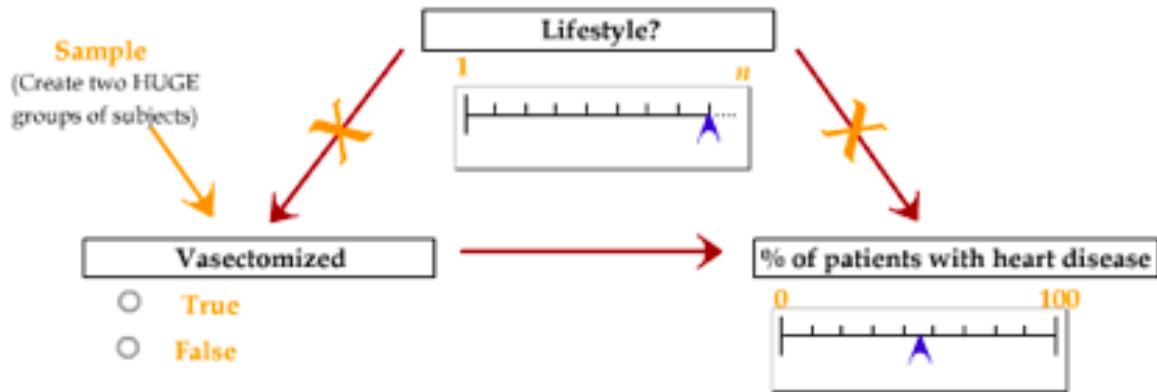


Figure 4.18: Diagram of vasectomy study with controls in place.

ANY FACTOR OTHER THAN THE INDEPENDENT VARIABLE that alters the dependent variable can affect the internal validity of an experiment.

Randomizing the assignment of subjects to the experimental and control conditions overcomes many of the potential dangers to internal validity. If randomization is effective, all other pre-existing subject variables that may affect the dependent variable appear in the two groups at equal rates, leaving only the independent variable as the source of difference between the groups. With small samples, however, even randomization can result in other factors being unequally distributed between the experimental and control groups.

Even if the randomization does equalize all pre-existing factors that might affect the dependent variable, other conditions might arise during the experiment that have an effect. For example, perhaps the experimental and control groups are sent to different rooms, and the rooms are of different temperatures. If you were measuring impatience or irritation, there could be large effects in your dependent variable based on the temperature of the room.

Another set of internal validity concerns arise from two sources of bias. Both experimenter bias and subject reactivity can compromise an experiment. Often, though not always, participants can be kept "blind" as to what condition they are in or what the experimenter expects. If the experimenter also is "blind" as to which participants are in which conditions, it is a "double-blind" experiment. The most familiar example is drug studies, in which neither the participants nor the experimenter know who is getting the investigational drug and who is getting a placebo.

FOR A STUDY TO HAVE EXTERNAL VALIDITY, its results must be generalizable to the intended target population. But often researchers only study a small part of the target population, or even another population altogether. For example, in both biological and biomedical research, studies are conducted on other species, but the conclusions are applied to humans. Before testing a new drug on humans, for example, it is first tested on mice or rats or other creatures. In psychological research, college undergraduates are often used as subjects, but inferences are made about humans in general. External validity is the extent to which results can be generalized to the population as a whole.

The very fact of an experiment can, with humans, produce results that would not happen otherwise. Imagine that you are walking across campus and a total stranger who looks like a fellow student walks up to you and asks you to turn around and walk backwards for 20 feet. Will you do it? Now imagine that the stranger prefaces her request with "I am conducting an experiment for my psychology class" and then proceeds with the same request. Are you more likely to comply? If so, then compliance in an experiment may be a product of the experiment and not indicative of behavior outside of that situation.

What all experimental design has in common

- Intervene in some way to change the value of the IV, measurement of the DV.
- Efforts are made to control extraneous variables.

Common threats to internal validity

- No Control Group
- Nonequivalent Control Groups
- No adequate measurement of DV or using an unverified measures
- Pre-Test Post-Test Pitfalls:
 - Maturation—if there is a great deal of time between the pre- and post-test, it is possible than any possible result comes from the maturation of the participants, not the intervention.
 - Testing fatigue—as with standardized testing in high school, participants may become annoyed or bored with the testing, and hence produce poor results.
 - Instrument Decay—if the instrument 'drifts' or changes over time, internal validity would suffer. This is particularly a problem when the measurement is based on coding or classification.

- Regression to the mean—with repeated measures, results tend towards the mean. An initially promising result may just be an outlier, which would prove to be insignificant with repeated measures.
- P-value hacking—Statistical significance is usually measured with $p < 0.05$. 0.05% is one in twenty, which is to say that if a ‘statistically significant’ result has a 1 in 20 chance of having been random noise, rather than an actual effect. Given powerful statistical software we have now, an unscrupulous researcher could just run his or her data 20 times, or until a statistically significant result appears.

Common experimental designs

TWO GROUPS, POST-TEST ONLY

- Subjects assigned to control or experimental group randomly. Dependent variable is tested after the independent variable is introduced.

TWO GROUPS, PRE-TEST AND POST-TEST

- Same as above, except that a pre-test is given to ensure the equivalence of the two groups.

SIMPLE RANDOM ASSIGNMENT

- Just what it sounds like: randomly assign each subject to one of the groups (a coin flip is sufficient for two groups).

MATCHED PAIRS ASSIGNMENT

- First match subjects into pairs based on some characteristic related to the IV. Then randomly assign the members of each pair to one of the two experimental groups.
- The same individuals participate in both experimental conditions, after which the dependent variable is measured.
- Advantages: Fewer individuals are required.
- If training (or acclimatizing) is required, this design can save valuable resources.
- As the individuals in the experimental conditions are identical, more confounds are controlled.

Models in Science

One way to explain why something happens is to demonstrate a cause for it. But causes typically do not operate in isolation. Encountering a virus may explain why you developed the flu, but the condition of having the flu only arises when a number of other things happen. In particular, a virus must invade a particular cell (flu viruses invade cells lining a person's respiratory or digestive track).

Except for the fact that some viruses break out of their generous hosts by breaking the host cell open and killing it, this all sounds harmless enough. But the consequences are what debilitate you:

- When the cells lining the respiratory track are killed, fluid can flow into your nasal passages; this is what you experience as a runny nose.
- This nasal fluid contains more viruses and as they drip down your throat they attack the cells lining it. You experience this as a sore throat.
- The virus particles that get into your bloodstream attack muscle cells, which you experience as muscle ache.
- Finally, your body is designed to resist this assault. One thing it does is produce pyrogens, chemicals that cause your body temperature to increase. The higher temperature reduces the capacity of cells to carry out their operations, including hosting the creation of new viruses.

Although it was the virus that caused the flu, a lot of other operations were going on. The virus had to rely on a complex bit of machinery to carry out its task of reproducing itself, and in the process laying you low with the flu.

The explanatory scenario just outlined, in which we invoke a mechanism to explain a causal effect, is extremely common in science.

- To explain the reproduction of cells, scientists describe the *mechanism* of cell reproduction.
- To explain how blood carries nutrients to tissues in the body, they describe the *mechanism* of circulation of the blood.
- To explain how people can remember events in their lives and new factual information, they describe the mechanisms of memory encoding, storage, and retrieval.

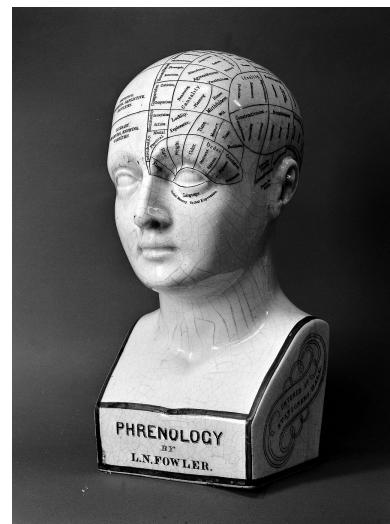


Figure 4.19: Mechanistic explanation is not new to science. In the 19th century, Franz Joseph Gall suggested phrenology, which sought to identify particular mechanisms of intelligence with particular bumps on the skull. The mechanism posited held that personality traits were localized in the brain, and the brain would be enlarged in specific areas for those traits. The enlargements could then be detected by the structure of the skull. We still accept the idea of localization, but unlike muscles, excess activity does not make the brain enlarge. Image from Wikimedia Commons

Thesis 4.8 (Mechanism definition)

Mechanism: entities and activities organized so that a phenomenon occurs or entities and activities organized in such a way as to realize a function.

Explaining the occurrence of a phenomenon by identifying the mechanism that produces it is perhaps the most common explanatory strategy in science. Accordingly, we need to consider in detail

- what a mechanism is
- how mechanisms are described
- how mechanisms are discovered
- how mechanisms are modeled
- how accounts of mechanism are tested.

When scientists use the word ‘mechanism’, they are talking about an explanation that decomposes into other entities, and explains behavior in terms of the interactions of those entities’ behaviors. They are discovered with three basic techniques²⁷:

RECORDING ACTIVITY. The simplest intervention on a mechanism is to record the activity of the underlying entities. Consider by analog a steam-engine. If one wanted to figure out how it worked, one would have to turn it on, and record the activity of its parts: the boiler does such and such, the pistons move... etc.

STIMULATING COMPONENTS. If components of a mechanism are distinct, they should be able to be stimulated directly. The Penfield Homunculus for example, was created by direct stimulation of a patient’s brain, and recording which parts of his body reacted.

INHIBITING COMPONENTS. Some times called ‘lesioning’, this strategy is simply to block the activity of a component of a mechanism, and see record the activity of the whole, or the activity of the other components in the absence of the component of interest. We know, for example, that the hippocampus plays a significant role in personal memory because we have observed a patient (HM), who has his hippocampus removed surgically. Scoville and Milner 1957

A posited mechanism must allow for at least these three methods of investigation to be considered scientific. Mechanistic explanations that do not allow for recording of the activity, stimulating, or inhibiting of components can’t be considered a scientific explanation.

What all mechanistic explanation has in common

- Posits entities and activities that are arranged in such a way that their interaction produces the phenomenon in question.
- Entities and activities must be, in principle:

²⁷ This section is based on the work of my collaborators, William Bechtel (“Discovering Complexity” 2010 and Bechtel 2006) and Carl Craver (Craver 2006).

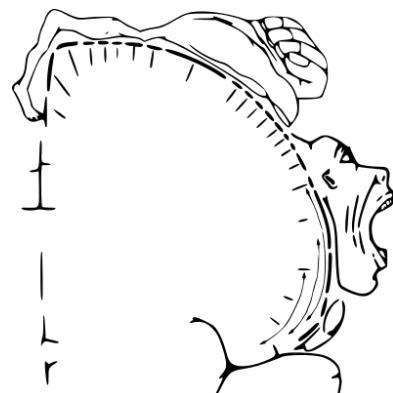


Figure 4.20: Penfield Homunculus, from wikiimages

- Measurable
- Stimulatable
- Inhibitible

Ethics of human research

Ethical codes of research have generally followed the discovery or publication of horrifically unethical experiments. The most famous of these is probably the Nuremberg Code, adopted by the international medical community after the discovery of the Nazi 'experiments' performed on Jews, Homosexuals and Gypsies during the Holocaust. The Nuremberg code is available online, and should be reviewed by anyone proposing an experiment or sitting on the Research Committee.

The Nuremberg Code

The Nuremberg code (The National Institutes of Heath 2009) lays out ten simple principles for design experiments on humans. They are:

1. The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.
The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs, or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.
2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods of means of study, and not random and unnecessary in nature.
3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.
4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.

5. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.
6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.
7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability or death.
8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required though all stages of the experiment of those who conduct or engage in the experiment.
9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.
10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability or death to the experimental subject.

Table 4.12: The Nuremberg Code

The Declaration of Helsinki

In 1964, the medical community through the World Medical Association adopted the 'Declaration of Helsinki', which replaced the Nuremberg code as the standard for ethical experimentation on humans by the medical community. (World Medical Association 1975) The World Medical Association still maintains the Declaration, adopting the most recent revisions in 2004. Current versions are available online.

Psychiatrists, as practicing medical doctors, are bound by the Declaration of Helsinki. While it is far more complete than the Nuremberg code, the same basic ideas appear:

I. Basic Principles

1. Biomedical research involving human subjects must conform to generally accepted scientific principles and should be based on adequately performed laboratory and animal experimentation and on a thorough knowledge of the scientific literature.

2. The design and performance of each experimental procedure involving human subjects should be clearly formulated in an experimental protocol which should be transmitted to a specially appointed independent committee for consideration, comment and guidance.
3. Biomedical research involving human subjects should be conducted only by scientifically qualified persons and under the supervision of a clinically competent medical person. The responsibility for the human subject must always rest with a medically qualified person and never rest on the subject of the research, even though the subject has given his or her consent.
4. Biomedical research involving human subjects cannot legitimately be carried out unless the importance of the objective is in proportion to the inherent risk to the subject.
5. Every biomedical research project involving human subjects should be preceded by careful assessment of predictable risks in comparison with foreseeable benefits to the subject or to others. Concern for the interests of the subject must always prevail over the interests of science and society.
6. The right of the research subject to safeguard his or her integrity must always be respected. Every precaution should be taken to respect the privacy of the subject and to minimize the impact of the study on the subject's physical and mental integrity and on the personality of the subject.
7. Physicians should abstain from engaging in research projects involving human subjects unless they are satisfied that the hazards involved are believed to be predictable. Physicians should cease any investigation if the hazards are found to outweigh the potential benefits.
8. In publication of the results of his or her research, the physician is obliged to preserve the accuracy of the results. Reports of experimentation not in accordance with the principles laid down in this Declaration should not be accepted for publication.
9. In any research on human beings, each potential subject must be adequately informed of the aims, methods, anticipated benefits and potential hazards of the study and the discomfort it may entail. He or she should be informed that he or she is at liberty to abstain from participation in the study and that he or she is free to withdraw his or her consent to participation at any time. The physician should then obtain the subject's freely given informed consent, preferably in writing.
10. When obtaining informed consent for the research project the physician should be particularly cautious if the subject is in dependent relationship to him or her or may consent under duress. In that case the informed consent should be obtained by a physician who isn't engaged in the investigation and who is completely independent of this official relationship.

11. In case of legal incompetence, informed consent should be obtained from the legal guardian in accordance with national legislation. Where physical or mental incapacity makes it impossible to obtain informed consent, or when the subject is a minor, permission from the responsible relative replaces that of the subject in accordance with national legislation. Whenever the minor child is in fact able to give a consent, the minor's consent must be obtained in addition to the consent of the minor's legal guardian.
12. The research protocol should always contain a statement of the ethical considerations involved and should indicate that the principles enunciated in the present declaration are complied with.

II. Medical Research Combined with Professional Care (Clinical Research)

1. In the treatment of the sick person, the physician must be free to use a new diagnostic and therapeutic measure, if in his or her judgement it offers hope of saving life, re-establishing health or alleviating suffering.
2. The potential benefits, hazards and discomfort of a new method should be weighed against the advantages of the best current diagnostic and therapeutic methods.
3. In any medical study, every patient- including those of a control group, if any- should be assured of the best proven diagnostic and therapeutic method.
4. The refusal of the patient to participate in a study must never interfere with the physician-patient relationship.
5. If the physician considers it essential not to obtain informed consent, the specific reasons for this proposal should be stated in the experimental protocol for transmission to the independent committee (1, 2).
6. The physician can combine medical research with professional care, the objective being the acquisition of new medical knowledge, only to the extent that medical research is justified by its potential diagnostic or therapeutic value for the patient.

III. Non-Therapeutic Biomedical Research Involving Human Subjects (Non-Clinical Biomedical Research)

1. In the purely scientific application of medical research carried out on a human being, it is the duty of the physician to remain the protector of the life and health of that person on whom biomedical research is being carried out.
2. The subjects should be volunteers- either healthy persons or patients for whom the experimental design is not related to the patient's illness.
3. The investigator or the investigating team should discontinue the research if in his/her or their judgment it may, if continued, be harmful to the individual.
4. In research on man, the interest of science and society should never take precedence over considerations related to the well-being of the subject.

Table 4.13: The Declaration of Helsinki

In the context of psychiatry, of course, the distinction made be-

tween therapeutic research and non-therapeutic research is crucially important. If a psychiatric patient were to be deemed incapable of making an informed decision, and there is an experiment therapy that the psychiatrist believes may help, there are few ethical checks and balances to constrain the psychiatrist from performing unwarranted experiments.

The APA Ethical Standards for Psychologists

The APA Standards were first published in 1953. (American Psychological Association 1953) They were revised in 1958 (American Psychological Association 1958), 1963 (American Psychological Association 1963) and 1968. (American Psychological Association 1968) The 1968 standards, which should guide the research committee in determining which research programs should be allowed to move forward, are attached in Appendix F on page 432.

Most of the APA standards outline the responsibilities of psychologists who practice counseling and patient care. While those are incredibly important, we're most concerned here with Principle 16: Research Precautions. In 1958, section 16 was titled 'Harmful Aftereffect.' It read:

PRINCIPLE 16. HARMFUL AFFECTS. Only when a problem is significant and can be investigated in no other way is the psychologist justified in giving misinformation to research subjects or exposing research subjects to physical or emotional stress.

- a. When the possibility of serious aftereffects exists, research is conducted only when the subjects or the responsible agents are fully informed of this possibility and volunteer nevertheless.
- b. The psychologist seriously considers the possibility harmful aftereffects and removes them as soon as permitted by the design of the experiment.
- c. A psychologist using animals in research adheres to the provisions of the Rules Regarding Animals, drawn up by the Committee on Precautions in Animal Experimentation and adopted by the American Psychological Association.

Table 4.14: APA Ethical Standards: 1959

Four years later, in 1963, (American Psychological Association 1963) the committee responsible for the Ethical guidelines:

a. Changed the title to 'Research Precautions,' moved the 'preamble' to point (a) and added a new preamble. It also changed the phrase

'is significant' to 'is of scientific significance'; 'can be investigated in no other way' became 'it is not practicable to investigate it in any other way'; 'giving misinformation to research subjects' was dropped; and the phrase 'whether children or adults' added to the new point (a).

- b. Added the qualification of 'reasonable' to 'possibility'; changed 'harmful' to 'injurious' and 'volunteer' became 'agree to participate'.
- c. Changed 'removes' to 'avoids or removes'; and
- d. Unchanged.

PRINCIPLE 16. RESEARCH PRECAUTIONS. The psychologist assumes obligations for the welfare of his research subjects, both animal and human.

- a. Only when a problem is of scientific significance and it is not practicable to investigate it in any other way is the psychologist justified in exposing research subjects research subjects, whether children or adults, to physical or emotional stress.
- b. When the possibility of injurious aftereffects exists, research is conducted only when the subjects or the responsible agents are fully informed of this possibility and agree to participate nevertheless.
- c. The psychologist seriously considers the possibility harmful aftereffects and avoids or removes them as soon as permitted by the design of the experiment.
- d. A psychologist using animals in research adheres to the provisions of the Rules Regarding Animals, drawn up by the Committee on Precautions in Animal Experimentation and adopted by the American Psychological Association.

Table 4.15: APA Ethical standards 1963

These changed little between 1963 and 1968 (American Psychological Association 1968), except for the addition of the qualifying phrase 'as part of the investigation' to (a) and adding provision (e) governing the use of psychoactive drugs:

PRINCIPLE 16. RESEARCH PRECAUTIONS. The psychologist assumes obligations for the welfare of his research subjects, both animal and human.

- a. Only when a problem is of scientific significance and it is not practicable to investigate it in any other way is the psychologist justified in exposing research subjects research subjects, whether children or adults, to physical or emotional stress as part of an investigation.

- b. When the possibility of injurious aftereffects exists, research is conducted only when the subjects or the responsible agents are fully informed of this possibility and agree to participate nevertheless.
- c. The psychologist seriously considers the possibility harmful aftereffects and avoids, or removes them as soon as permitted by the design of the experiment.
- d. A psychologist using animals in research adheres to the provisions of the Rules Regarding Animals, drawn up by the Committee on Precautions in Animal Experimentation and adopted by the American Psychological Association.
- e. Investigations of human subjects using experimental drugs (for example, hallucinogenic, psychotomimetic, psychedelic, or similar substances) should be conducted only in such settings as clinics, hospitals, or research facilities maintaining appropriate safeguards for the subjects.

Table 4.16: APA Ethical standards 1968

For a historical overview, see Fisher 2009 and Fisher 2003.

5 Core Texts

Freud, Sigmund *Introductory lectures on psychoanalysis*, WW Norton & Company

Supplementary texts that are covered extensively in the game book

- Bacon, F., Jardine, L., & Silverthorne, M. (1620). The new organon. Cambridge texts in the history of philosophy.
- Ebbinghaus, H. (1885). Memory. (H. A. Ruger & C. E. Bussenius, Trans.) (pp. 1–142).

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Appendices

A Pinel, Philippe. "A Treatise on Insanity", 1806

INSANITY FROM RELIGIOUS ENTHUSIASM EXTREMELY,
DIFFICULT TO CURE.

29. To say that the attempts, which have been made in England and France, to cure the insanity of devotees, have been generally ineffectual, is not precisely to assert its incurability. It certainly is not impossible, that, by a judicious combination of moral and physical means, a cure might, in many instances, be effected. My plan would have been, could the liberties of the Bicetre have admitted of it, to separate this class of maniacs from the others; to apportion for their use a large piece of ground so till or work upon, in the way that might or their own inclination might dispose them; to encourage em- ployments of this description, by the prospect of a moderate recompense, want or more exalted mo- tives; to remove from their sight every object ap- pertaining to religion, every painting or book cal- culated to rouse its recollections; to order certain hours of the day to be devoted to philosophical read- ing, and to seize every opportunity of drawing apt comparisons between the distinguished acts of hu- manity and patriotism of the ancients, and the pi- ous nullity and delirious extravagances of saints and anchorites; to divert their minds from the pe-

cular object of their hallucination, and to fix their interest upon pursuits of contrary influence and tendency.

**THE CONDUCT OF THE GOVERNOR OF BICETRE, UPON THE
REVOLUTIONARY ORDERS HE RECEIVED TO DESTROY
THE SYMBOLIC REPRESENTATIONS OF RELIGION.**

30. In the third year of the republic, the directors of the civil hospitals, in the excess of their revolutionary zeal, determined to remove from those places the external objects of worship, the only remaining consolation of the indigent and the unhappy. A visit for this purpose was paid to the hospital de Bicetre. The plunder, impious as it was and detestable, was begun in the dormitories of the old and the infirm, who were naturally struck at an instance of robbery so new and unexpected, some with astonishment, some with indignation, and others with terror. The first day of visitation being already far spent, it was determined to reserve the lunatic department of the establishment for another opportunity. I was present at the time, and seized the occasion to observe, that the unhappy residents of that part of the hospital required to be treated

B *Psychopathia sexualis*

Excerpt 1

HOMO-SEXUALITY.

that fur (ermine) is the symbol of royalty, and their fetich of the men described in the novels.

II. *Great Diminution or Complete Absence of Sexual Feeling for the Opposite Sex, with Substitution of Sexual Feeling and Instinct for the Same Sex. (Homo-sexuality, or Contrary Sexual Instinct).*

After the attainment of complete sexual development, among the most constant elements of self-consciousness in the individual, are the knowledge of representing a definite sexual personality and the consciousness of desire, during the period of physiological activity of the reproductive organs (production of semen and ova), to perform sexual acts corresponding with that sexual personality,—acts which, consciously or unconsciously, have a procreative purpose. *

The sexual instinct and desire, save for indistinct feelings and impulses, remain latent until the period of development of the sexual organs. The child is *generis neutrius*; and though, during this latent period,—when sexuality has not yet risen into clear consciousness, is but virtually present, and unconnected with powerful organic sensations,—too early excitation of the genitals may occur, either spontaneously or as a result of external influence, and find satisfaction in masturbation; yet, notwithstanding this, the *psychical* relation to persons of the opposite sex is still absolutely wanting, and the sexual acts during this period partake more or less of a reflex spinal nature. ✓

The fact of innocence, or of sexual neutrality, is the more remarkable, since very early, in education, employment, dress, etc., the child undergoes a differentiation from children of the opposite sex. These impressions, however, remain destitute of mental meaning, because they apparently are without sexual coloring; for the central organ (cortex) of sexual emotions and ideas is not yet capable of activity, owing to its undeveloped condition.

With the inception of anatomical and functional development of the generative organs, and the differentiation of form belonging to each sex, which goes hand in hand with it in the boy or girl, rudiments of a mental feeling corresponding with

the sex are developed; and in this, of course, education and external influences in general have a powerful effect upon the individual, who is now all attention.

If the sexual development is normal and undisturbed, a definite character, corresponding with the sex, is developed. Certain definite inclinations and reactions in intercourse with persons of the opposite sex arise; and it is psychologically worthy of note with what relative rapidity the definite mental type corresponding with the sex is evolved.

While modesty, for example, during childhood, is essentially but an uncomprehended and incomprehensible exaction of education and imitation, and in the innocence and *naïveté* of the child but imperfectly expressed; in the youth and maiden it becomes an imperative requirement of self-respect; and, if in any way it is offended, intense vasomotor reaction (blushing) and psychical emotion are induced.

If the original constitution is favorable and normal, and factors injurious to the psycho-sexual development exercise no influence, then a psycho-sexual personality is developed that is so unchangeable, and corresponds so completely and harmoniously with the sex the individual represents, that subsequent loss of the generative organs (as by castration), or the climacteric or senility, cannot essentially alter it. But this, of course, is not to declare that the castrated man or woman, the youth and the aged man, the maiden and matron, the impotent and the potent man, do not differ essentially from one another mentally.

An interesting and important question for what follows is, whether the peripheral influences of the generative glands (testes and ovaries), or central cerebral conditions, are the determining factors in psycho-sexual development. The fact that congenital deficiency of the generative glands, or removal of them before puberty, has a great influence on physical and psycho-sexual development, so that the latter is distorted and assumes a type more closely resembling the opposite sex (eunuchs, certain viragoes, etc.), betokens their great importance in this respect.

But that the physical processes taking place in the genital

organs are only co-operative, and not the exclusive factors in the process of development of the psycho-sexual character, is shown by the fact that, notwithstanding a normal anatomical and physiological state of these organs, a sexual instinct may be developed which is the exact opposite of that characteristic of the sex to which the individual belongs.

In this case, the cause is to be sought only in an anomaly of central conditions,—in an abnormal psycho-sexual constitution. This constitution, as far as its anatomical and functional foundation is concerned, is absolutely unknown. Since, in almost all such cases, the individual subject to the perverse sexual instinct displays a neuropathic predisposition in several directions, and the latter may be brought into relation with hereditary degenerate conditions, this anomaly of psycho-sexual feeling may be called, clinically, a functional sign of degeneration. This perverse sexuality appears spontaneously, without external cause, with the development of sexual life, as an individual manifestation of an abnormal form of the *vita sexualis*, and then has the force of a *congenital* phenomenon; or it develops upon a sexuality the beginning of which was normal, as a result of very definite injurious influences, and thus appears as an *acquired* anomaly. Upon what this enigmatical phenomenon of acquired homo-sexual instinct depends is still inexplicable, and only a matter for hypothesis. Careful examination of the so-called acquired cases makes it probable that the predisposition also present here consists of a latent homo-sexuality, or, at least, bi-sexuality, which, for its manifestation, requires the influence of accidental exciting causes to rouse it from its slumber.

In so-called contrary sexual instinct there are degrees of the phenomenon which quite correspond with the degrees of predisposition of the individuals. Thus, in the milder cases, there is simple hermaphroditism; in more pronounced cases, only homo-sexual feeling and instinct, but limited to the *vita sexualis*; in still more complete cases, the whole psychical personality, and even the bodily sensations, are transformed to correspond with the sexual perversion; and, in the complete cases, the physical form is correspondingly altered.

The following division of the various phenomena of this psycho-sexual anomaly is made, therefore, in accordance with these clinical facts:—

A. *Homo-sexual Feeling as an Acquired Manifestation.*—
The determining condition here is the demonstration of perverse feeling for the same sex; not the proof of sexual acts with the same sex. These two phenomena must not be confounded with each other; perversity must not be taken for perversion.

Perverse sexual acts, not dependent upon perversion, often come under observation. This is especially true with reference to sexual acts between persons of the same sex, particularly pederasty. Here paræsthesia sexualis is not necessarily at work; but hyperæsthesia, with physical or mental impossibility of natural sexual satisfaction. Thus we find homo-sexual intercourse in impotent masturbators or debauchees, or *faute de mieux* in sensual men and women in imprisonment, on ship-board, in garrisons, bagnios, boarding-schools, etc.

There is an immediate return to normal sexual intercourse as soon as obstacles to it are removed. Very frequently the cause of such temporary aberration is masturbation and its results in youthful individuals.

Nothing is so prone to contaminate—under certain circumstances, even to exhaust—the source of all noble and ideal sentiments, which arise of themselves from a normally developing sexual instinct, as the practice of masturbation in early years. It despoils the unfolding bud of perfume and beauty, and leaves behind only the coarse, animal desire for sexual satisfaction. If an individual, spoiled in this manner, reaches an age of maturity, there is wanting in him that æsthetic, ideal, pure, and free impulse which draws one toward the opposite sex. Thus the glow of sensual sensibility wanes, and the inclination toward the opposite sex becomes weakened. This defect influences the morals, character, fancy, feeling, and instinct of the youthful masturbator, male or female, in an unfavorable way, and, under certain circumstances, allows the desire for the opposite sex to sink to *nil*; so that masturbation is preferred to the natural mode of satisfaction.

Sometimes the development of higher sexual feelings toward the opposite sex suffers, on account of hypochondriacal fear of infection in sexual intercourse; or on account of an actual infection; or they suffer as a result of a faulty education which points out such dangers and exaggerates them. Again (especially in females), fear of the result of coitus (pregnancy), or abhorrence of men, by reason of mental or moral weakness, may direct into perverse channels an instinct that makes itself felt with abnormal intensity. But too early and perverse sexual satisfaction injures not merely the mind, but also the body; inasmuch as it induces neuroses of the sexual apparatus (irritable weakness of the centres governing erection and ejaculation; defective pleasurable feeling in coitus), while, at the same time, it maintains the imagination and libido in continuous excitement.

Almost every masturbator at last reaches a point where, frightened on learning the results of the vice, or on experiencing them (neurasthenia), or led by example or seduction to the opposite sex, he wishes to free himself of the vice and re-instate his vita sexualis. The moral and mental conditions are the most unfavorable possible. The pure glow of sexual feeling is destroyed; the fire of sexual instinct is wanting, and self-confidence, no less; for every masturbator is more or less timid and cowardly. If the youthful sinner at last comes to make an attempt at coitus, he is either disappointed because enjoyment is wanting, on account of defective sensual feeling, or he is lacking in the mental strength necessary to accomplish the act. The fiasco has a fatal effect, and leads to absolute psychical impotence. A bad conscience and the memory of past failures prevent success in any further attempts. The constant libido sexualis, however, demands satisfaction; but this moral and mental perversion separates him further and further from women. For various reasons, however (neurasthenic complaints, hypochondriacal fear of the results, etc.), the individual is kept from masturbation. Occasionally, under such circumstances, there may be bestiality. Intercourse with the same sex is then near at hand,—as a result of occasional seduction or of the feelings of

Sexual vice, a lighter side

friendship which, on the level of pathological sexuality, easily associate themselves with sexual feelings. Passive and mutual onanism then becomes the equivalent of the avoided act. If there is a seducer,—which, unfortunately, is so frequent,—then the cultivated pederast is produced,—i.e., a man who performs *quasi* acts of onanism with persons of his own sex, and, at the same time, feels and prefers himself in an active rôle corresponding with his real sex; who is mentally indifferent not only to persons of the opposite sex, but also to those of his own sex.

Sexual aberration in the *normally* constituted, *untainted*, mentally healthy individual, reaches this degree. No case has been demonstrated in which perversity has been transformed into perversion,—into a reversal of the sexual instinct.¹

With tainted individuals, the matter is quite different. The latent perverse sexuality is developed under the influence of neurasthenia induced by masturbation, abstinence, or otherwise.

Gradually, in contact with persons of the same sex, sexual excitation by them is induced. Related ideas are colored with

¹ Garnier (*Anomalies Sexuelles*, Paris, pp. 508, 509) reports two cases (Cases 222 and 223) that are apparently opposed to this assumption, particularly the first, in which despair about the unfaithfulness of a lover led the individual to submit to the seductions of men. But the case itself clearly shows that this individual never found pleasure in homo-sexual acts. In Case 223, the individual was effeminated *ab origine*, or was at least a psychical hermaphrodite.

Those who hold to the opinion that the origin of homo-sexual feelings and instinct is found to be exclusively in defective education and other psychological influences are entirely in error.

An untainted male may be raised never so much like a female, and a female like a male, but they will not become homo-sexual. The natural disposition is the determining condition; not education and other accidental circumstances, like seduction. There can be no thought of contrary sexual instinct save when the person of the same sex exerts a psycho-sexual influence on the individual, and thus brings about libido and orgasm,—i.e., has a psychical attraction. Those cases are quite different in which, *faute de mieux*, with great sensuality and a defective aesthetic sense, the body of a person of the same sex is used for an onanistic act (not for coitus in a psychical sense).

In his excellent monograph, Moll shows very clearly and convincingly the importance of original predisposition in contrast with exciting causes (comp. *op. cit.*, pp. 156-175). He knows "many cases where early sexual intercourse with men was not capable of inducing perversion." Moll significantly says, further: "I know of such an epidemic (of mutual onanism) in a Berlin school, where a person who is now an actor shamelessly introduced mutual onanism. Though I now know the names of very many urningen in Berlin, yet I could not ascertain, even with anything like probability, that among all the scholars of that school at that time there was one that had become an urning; but, on the other hand, I have quite certain knowledge that many of those scholars are now normal sexually, in feeling and intercourse."

lustful feelings, and awaken corresponding desires. This decidedly degenerate reaction is the beginning of a process of physical and mental transformation, a description of which is attempted in what follows, and which is one of the most interesting psychological phenomena that has been observed. This metamorphosis presents different stages, or degrees.

I. Degree: Simple Reversal of Sexual Feeling.—This degree is attained when persons of the same sex have an aphrodisiac effect, and the individual has a sexual feeling for them. Character and feeling, however, still correspond with the sex of the individual presenting the reversal of sexual feeling. He feels himself in the active rôle ; he recognizes his impulse toward his own sex as an aberration, and finally seeks aid. With episodical improvement of the neurosis, at first even normal sexual feelings may re-appear and assert themselves. The following case seems well suited to exemplify this stage of the psycho-sexual degeneration :—

Case 94. Acquired Contrary Sexual Instinct.—“I am an official, and, as far as I know, come of an untainted family. My father died of an acute disease ; my mother is living and is *quite nervous*. A sister has been very intensely religious for some years.

“I myself am tall, and, in speech, gait, and manner, give a perfectly masculine impression. Measles is the only disease I have had ; but since my thirteenth year I have suffered with so-called nervous headache. My sexual life began in my thirteenth year, when I became acquainted with a boy somewhat older than myself, with whom I took pleasure in mutual fondling of the genitals. I had the first ejaculation in my fourteenth year. Seduced to onanism by two older school-mates, I practiced it partly with others and partly alone ; in the latter case, however, always with the thought of persons of the female sex. My libido sexualis was very great, as it is to-day. Later, I tried to win a pretty, stout servant-girl who had very large mammae ; id solum assecutus sum, ut me praesente superiorem corporis sui partem enudaret mihiique concederet os mammaque osculari, dum ipsa penem meum valde erectum in manum suam recepit eumque trivit.

“Notwithstanding my urgent demand for coitus, she would not allow it ; but she finally permitted me to touch her genitals.

“After going to the University, I visited a brothel and succeeded without especial effort.

“There an event occurred which brought a change in me. One

evening I accompanied a friend home, and in a mild state of intoxication I grasped him ad genitalia. He made but slight opposition. I then went up to his room with him, and we practiced mutual masturbation. From that time we indulged in it quite frequently; in fact, it came to immissio penis in os, with resultant ejaculations. But it is strange that I was not at all in love with this person, but passionately in love with another friend, near whom I never felt the slightest sexual excitement, and whom I never connected with sexual matters, even in thought. My visits to brothels, where I was gladly received, became more infrequent; in my friend I found a substitute, and did not desire sexual intercourse with women.

“ We never practiced pederasty, and that word was not even known between us. From the beginning of this relation with my friend, I again masturbated more frequently, and naturally the thought of females receded more and more into the background, and I thought more and more about young, handsome, strong men with the largest genitals. I preferred young fellows, from sixteen to twenty-five years old, without beards, but they had to be handsome and clean. Young laborers dressed in trousers of Manchester cloth or English leather, particularly masons, especially excited me.

“ Persons in my own position had hardly any effect on me; but, at the sight of one of those strapping fellows of the lower class, I experienced marked sexual excitement. It seems to me that the touch of such trousers, the opening of them, and the grasping of the penis, as well as kissing the fellow, would be the greatest delight. My sensibility to female charms is somewhat dulled; yet in sexual intercourse with a woman, particularly when she has well-developed mammae, I am always potent without the help of imagination. I have never attempted to make use of a young laborer, or the like, for the satisfaction of my evil desires, and never shall; but I often feel the longing to do it. I often impress on myself the mental image of such a man, and then masturbate at home.

“ I am absolutely devoid of taste for female work. I rather like to move in female society, but dancing is repugnant to me. I have a lively interest in the fine arts. That my sexual sense is partly reversed is, I believe, in part due to greater convenience, which keeps me from entering into a relation with a girl; as the latter is a matter of too much trouble. To be constantly visiting houses of prostitution is, for æsthetic reasons, repugnant to me; and thus I am always returning to solitary onanism, which is very difficult for me to avoid.

“ Hundreds of times I have said to myself that, in order to have a normal sexual sense, it would be necessary for me, first of all, to overcome my irresistible passion for onanism,—a practice so repugnant to my æsthetic feeling. Again and again I have resolved with all my might to fight this passion; but I am still unsuccessful. When I felt the sexual impulse gaining strength, instead of seeking satisfaction in the natural

manner, I preferred to masturbate, because I felt that I would thus have more enjoyment.

" And yet experience has taught me that I am always potent with girls, and that, too, without trouble and without the help of imagining masculine genitals. In one case, however, I did not attain ejaculation because the woman—it was in a brothel—was devoid of every charm. I cannot avoid the thought and severe self-accusation that, to a certain extent, my contrary sexuality is the result of excessive onanism ; and this especially depresses me, because I am compelled to acknowledge that I scarcely feel strong enough to overcome this vice by the force of my own will.

" As a result of my relations with my fellow-student and schoolmate for years, mentioned in this communication,—which, however, began while we were at the University, and after we had been friends for seven years,—the impulse to unnatural satisfaction of libido has grown much stronger. I trust you will permit the description of an incident which occupied me for months :—

" In the summer of 1882, I made the acquaintance of a companion six years younger than myself, who, with several others, had been introduced to me and my acquaintances. I very soon felt a deep interest in this handsome man, who was unusually well proportioned, slim, and full of health. After a few weeks of association, this feeling became friendship, and at last passionate love, with feelings of the most intense jealousy. I very soon noticed that, in this, sexual excitation was also very marked ; and, notwithstanding my determination, aside from all others, to keep myself in check in relation to this man, whom I respected so highly for his superior character, one night, after free indulgence in beer, as we were enjoying a bottle of champagne in my room and drinking to good, true, and lasting friendship, I yielded to the irresistible impulse to embrace him, etc.

" When I saw him, next day, I was so ashamed that I could not look him in the face. I felt the deepest regret for my action, and accused myself bitterly for having thus sullied this friendship, which was to be and remain so pure and precious. In order to prove to him that I had lost control of myself only momentarily, at the end of the semester I urged him to make an excursion with me ; and after some reluctance, the reason of which was only too clear to me, he consented. Several nights we slept in the same room without any attempt on my part to repeat my action. I wished to talk with him about the event of that night, but I could not bring myself to it ; even when, during the next semester, we were separated, I could not induce myself to write to him on the subject ; and when I visited him, in March, at X., it was the same. And yet I felt a great desire to clear up this dark point by an open statement. In October of the same year, I was again in X., and this time found courage to speak without reserve ; indeed, I asked him why he had not resisted me. He answered that, in part, it was because he wished to please

me, and, in part, owing to the fact that he was somewhat apathetic as a result of being a little intoxicated. I explained to him my condition, and also gave him "Psychopathia Sexualis" to read, expressing the hope that by the force of my own will I should become fully and lastingly master of my unnatural impulse. Since this confession, the relation between this friend and me has been the most delightful and happy possible; there are the most friendly feelings on both sides, which are heart-felt and true; and it is to be hoped that they will endure.

"If I should not improve my abnormal condition, I am determined to put myself under your treatment; the more because, after a careful study of your work, I cannot count myself as belonging to the category of so-called urning; and, too, because I have the firm conviction, or hope, at least, that a strong will, assisted and combined with skillful treatment, could transform me into a man of normal feeling."

Case 95. Ilma S.¹, aged 29; single; merchant's daughter. She comes of a family having bad nervous taint. Father was a drinker and died by suicide, as also did the patient's brother and sister. A sister suffers with convulsive hysteria. Mother's father shot himself while insane. Mother was sickly, and died paralyzed after apoplexy. The patient never had any severe illness. She is bright, enthusiastic, and dreamy. Menses at the age of eighteen without difficulty; but thereafter they were very irregular. At fourteen, chlorosis and catalepsy from fright. Later, hysteria gravis and an attack of hysterical insanity. At eighteen, relations with a young man which were not platonic. This man's love was passionately returned. From statements of the patient, it seems that she was very sensual, and after separation from her lover practiced masturbation. After this she led a romantic life. In order to earn a living, she put on male clothing, and became a tutor; but she gave up her place because her mistress, not knowing her sex, fell in love with her and courted her. Then she became a railway-employé. In the company of her companions, in order to conceal her sex, she was compelled to visit brothels with them, and hear the most vulgar stories. This became so distasteful to her that she gave up her place, resumed the garments of a female, and again sought to earn her living. She was arrested for a theft, and on account of severe hystero-epilepsy was sent to the hospital. There, inclination and impulse toward the same sex were discovered. The patient became troublesome on account of passionate love for female nurses and patients.

Her sexual perversion was considered congenital. With regard to this the patient made some interesting statements:—

"I am judged incorrectly, if it is thought that I feel myself a man toward the female sex. In my whole thought and feeling I am much more a woman. I loved my cousin as only a woman can love a man."

¹ Comp. author's Experimental Study in the Domain of Hypnotism, 1889. G. P. Putnam's Sons, New York.

"The change of my feeling originated in this, that, in Pesth, dressed as a man, I had an opportunity to observe my cousin. I saw that I had wholly deceived myself in him. That gave me terrible heart-pangs. I knew that I could never love another man; that I belonged to those who love but once. Of similar effect was the fact that, in the society of my companions at the railway, I was compelled to hear the most offensive language and visit the most disreputable houses. As a result of the insight into men's motives, gained in this way, I took an unconquerable dislike to them. However, since I am of a very passionate nature and need to have some loving person on whom to depend, and to whom I can wholly surrender myself, I felt myself more and more powerfully drawn toward intelligent women and girls who were in sympathy with me."

The contrary sexual instinct of this patient, which was clearly acquired, expressed itself in a stormy and decidedly sensual way, and was further augmented by masturbation; because constant oversight in hospitals made sexual satisfaction with the same sex impossible. Character and occupation remained feminine. There were no manifestations of virginity. According to information lately received by the author, this patient, after two years of treatment in an asylum, was entirely freed from her neurosis and sexual perversion, and discharged cured.

Case 96. X., aged 19; mother nervous; two sisters of mother's father were insane. Patient of nervous temperament; well endowed mentally; well developed; normally formed. When he was twelve years old, he was seduced into mutual onanism by an elder brother.

After this, the patient continued the vice alone. In the last three years, during the act of masturbation, he had had peculiar fancies in the sense of "contrary sexual instinct."

He fancies himself a female; as, for example, a ballet-dancer in the act of coitus with an officer or circus rider. These perverse fancies have accompanied the act of masturbation since the patient became neurasthenic. He understands the harm of masturbation, fights desperately against it, but always gives up to the impulse.

If he is able to withstand the impulse for a few days, a normal desire for sexual intercourse with females is awakened; but a certain fear of infection holds these desires in check, and always drives him again to masturbation.

It is worthy of remark that this unfortunate's lascivious dreams concerned only females.

In the course of the last few months, the patient had become very neurasthenic and hypochondriacal. He feared tabes.

I advised treatment of the neurasthenia, suppression of masturbation, and marital cohabitation, if possible, after improvement of the neurasthenia.

Case 97. Mr. X, aged 35, single, official; mother insane, brother hypochondriacal.

Patient was healthy, strong, of lively sensual temperament. He had manifested powerful sexual instinct abnormally early, and masturbated while yet a small boy. He had coitus the first time at the age of fourteen, he says, with enjoyment and complete power. When fifteen years old, a man sought to seduce him, and performed manustupration on him. X. experienced a feeling of repulsion, and freed himself from the disgusting situation. At maturity he committed excesses in libido, with coitus; in 1880 he became neurasthenic, being afflicted with weakness of erection and ejaculatio præcox. He thus became less and less potent, and no longer experienced pleasure in the sexual act. At this time of sexual decadence, for a long time, he still had what was previously foreign to him, and is still incomprehensible to him,—an inclination for sexual intercourse with immature girls of the age of twelve or thirteen. His libido increased as virility diminished.

Gradually he developed inclination for boys of thirteen or fourteen. He was impelled to approach them.

Quodsi ei occasio data est ut tangere posset pueros qui ei placuere, penis vehementer se erexit tum maxime quum crura puerorum tangere potuisset. Abhinc feminas non cupivit. Nonnunquam feminas ad coitum coëgit sed erectio debilis, ejaculatio præmatura erat sine ulla voluptate.

Now only youths interested him. He dreamed about them and had pollutions. After 1882 he now and then had opportunity concubere cum juvenibus. This led to powerful sexual excitement, which he satisfied by masturbation. It was only exceptional for him to venture to touch his bed-fellow and indulge in mutual masturbation. He shunned pederasty. For the most part, he was compelled to satisfy his sexual needs by means of solitary masturbation. In the act he called up the vision of pleasing boys. After sexual intercourse with such boys, he always felt strengthened and refreshed, but morally depressed; because there was consciousness of having performed a perverse, indecent, and punishable act. He found it painful that his disgusting impulse was more powerful than his will.

X. thinks that his love for his own sex has resulted from great excess in natural sexual intercourse, and bemoans his situation. On the occasion of a consultation, in December, 1889, he asked whether there were any means to bring him back to a normal sexual condition, since he had no real horror feminæ, and would very gladly marry.

This intelligent patient, free from degenerative signs, presented no abnormal symptoms except those of sexual and spinal neurasthenia of moderate degree.

II. Degree: Eviration and Defemination.—If, in cases of contrary sexual instinct thus developed, no restoration occurs, then deep and lasting transformations of the psychical personality may occur. The process completing itself in this way may be briefly designated eviration. The patient undergoes a deep change of character, particularly in his feelings and inclinations, which become those of a female. After this, he also feels himself to be a woman during the sexual act, has desire only for passive sexual indulgence, and, under certain circumstances, sinks to the level of a prostitute. In this condition of deep and more lasting psycho-sexual transformation, the individual is like the (congenital) urning of high grade. The possibility of a restoration of the previous mental and sexual personality seems, in such a case, excluded.

The following case is a classical example of this variety of lasting acquired contrary sexual instinct:—

Case 98. Sch., aged 30, physician, one day told me the story of his life and malady, asking explanation, and advice concerning certain anomalies of his vita sexualis. The following description gives, for the most part verbatim, the details of the autobiography; only in some portions is it shortened:—

"My parents were healthy. As a child I was sickly; but with good care I thrived, and got on well in school. When eleven years old, I was taught to masturbate by my playmates, and gave myself up to it passionately. Until I was fifteen, I learned easily. On account of frequent pollutions, I became less capable, did not get on easily in school, and was uncertain and embarrassed when called on by the teacher. Frightened by my loss of capability, and recognizing that the loss of semen was responsible for it, I gave up masturbation; but the pollutions became even more frequent, so that I often had two or three in a night. In despair, I now consulted one physician after another. None were able to help me.

"Since I grew weaker and weaker, by reason of the loss of semen, with the impulse to sexual satisfaction growing more and more powerful, I sought houses of prostitution. But I was there unable to find satisfaction; for, even though the sight of a naked female pleased me, neither orgasm nor erection occurred; and even manustupration by the puella was not capable of inducing erection. Scarcely would I leave the house, when the impulse would seize me again, and I would have violent erections. I grew ashamed before the girls, and ceased to visit such houses. Thus a couple of years passed. My sexual life consisted of

Sex Change
Ancient Form

pollutions. My inclination toward the opposite sex grew less and less. At nineteen I went to the University. The theatre had more attractions for me. I wished to become an actor. My parents were not willing. At the Capital I was compelled now and then to visit girls with my comrades. I feared such a situation; because I knew that coitus was impossible for me, and because my friends might discover my impotence. Therefore, I avoided, as far as possible, the danger of becoming the butt of jokes and ridicule.

"One evening, in the opera-house, an old gentleman sat near me. He courted me. I laughed heartily at the foolish old man, and entered into his joke. Exinapinato genitalia mea prehendit, quo facto statim penis meus se erexit. Frightened, I demanded of him what he meant. He said that he was in love with me. Having heard of hermaphrodites in the clinics, I thought I had one before me, and became curious to see his genitals. The old man was very willing, and went with me to the water-closet. Sicuti penem maximum ejus erectum adspexi, perterritus effugi.

"This man followed me, and made strange proposals which I did not understand, and repelled. He did not give me any rest. I learned the secrets of male love for males, and felt that my sexuality was excited by it. But I resisted the shameful passion (as I then regarded it), and, for the next three years, I remained free from it. During this time I repeatedly attempted coitus with girls in vain. My attempts to free myself of my impotence by means of medical treatment were also vain. Once, when my libido sexualis was troubling me again, I recalled what the old man had told me: that male-loving men were accustomed to meet on the E. Promenade.

"After a hard struggle, and with beating heart, I went there, made the acquaintance of a blonde man, and allowed myself to be seduced. The first step was taken. This kind of sexual love was satisfactory to me. I always preferred to be in the arms of a strong man. The satisfaction consisted of mutual manustupration; occasionally in osculum ad penem alterius. I was then twenty-three years old. Sitting, together with my comrades, on the beds of patients in the clinic during the lectures, excited me so intensely that I could scarcely listen to the lectures. In the same year I entered into a formal love-relation with a merchant of thirty-four. We lived as man and wife. X. played the man, and fell more and more in love. I gave up to him, but now and then I had to play the man. After a time I grew tired of him, became unfaithful, and he became jealous. There were terrible scenes, which led to temporary separation, and finally to actual rupture. (The merchant afterward became insane, and died by suicide.)

"I made many acquaintances, and loved the most ordinary people. I preferred those having a full beard, and who were tall and of middle age, and able to play the active *rôle* well. I developed a proctitis. The pro-

fessor thought it was the result of sitting too much while preparing for examinations. I developed a fistula, and had to undergo an operation; but this did not cure me of my desire to allow myself to be used passively. I became a physician, and went to a provincial city, where I had to live like a nun. I developed a desire to move in ladies' society, and was gladly welcomed there; because it was found that I was not so one-sided as most men, and was interested in *toilettes* and such feminine things. However, I felt very unhappy and lonesome. Fortunately, in this town, I made the acquaintance of a man, a 'sister,' who felt like me. For some time I was taken care of by him. When he had to leave, I had an attack of despair, with depression, which was accompanied by thoughts of suicide.

"When it became impossible for me to longer endure the town, I became a military surgeon in the Capital. There I began to live again, and often made two or three acquaintances in one day. I had never loved boys or young people; only fully-developed men. The thought of falling into the hands of the police was frightful. Thus I have escaped the clutches of the blackmailer. At the same time, I could not keep myself from the satisfaction of my impulse. After some months I fell in love with an official of forty. I remained true to him for a year, and we lived like a pair of lovers. I was the wife, and was formally courted by the lover. One day I was transferred to a small town. We were in despair. The last night was spent in continually kissing and caressing one another.

"In T. I was unspeakably unhappy, in spite of some 'sisters' whom I found. I could not forget my lover. In order to satisfy my sexual desire, which cried for satisfaction, I chose soldiers. Money obtained men; but they remained cold, and I had no enjoyment with them. I was successful in being re-transferred to the Capital. There, there was a new love-relation, but much jealousy; because my lover liked to go into the society of 'sisters,' and was proud and coquettish. There was a rupture. I was very unhappy and very glad to be transferred from the Capital. I now stayed in C., alone and in despair. Two infantry privates were brought into service, but with the same unsatisfactory result. When shall I ever find true love again?

"I am over medium height, well developed, and look somewhat aged; and, therefore, when I wish to make conquests I use the arts of the toilet. My manner, movements, and face are masculine. Physically I feel as youthful as a boy of twenty. I love the theatre, and especially art. My interest in the stage is in the actresses, whose every movement and gesture I notice and criticise.

"In the society of gentlemen I am silent and embarrassed, while in the society of those like myself I am free, witty, and as fawning as a cat, if a man is sympathetic. If I am without love, I become deeply melancholic; but the favors of the first handsome man dispel my depre-

sion. In other ways I am frivolous; anything but ambitious. My profession is nothing to me. Masculine pursuits do not interest me. I prefer novels and going to the theatre. I am effeminate, sensitive, easily moved, easily injured, and nervous. A sudden noise makes my whole body tremble, and I have to collect myself in order to keep from crying out."

Remarks: The foregoing case is certainly one of acquired contrary sexual instinct, since the sexual instinct and impulse were originally directed toward the female sex. Sch. became neurasthenic through masturbation.

As an accompanying manifestation of the neurasthenic neurosis, lessened impressionability of the erection-centre and consequent relative impotence came on. As a result of this, sexual sensibility toward the opposite sex was lessened, with simultaneous persistence of libido sexualis. The acquired contrary sexual instinct must be abnormal, since the first touch by a person of the same sex is an adequate stimulus for the erection-centre. The perverse sexual feeling became complete. At first Sch. felt like a man in the sexual act; but more and more, as the change progressed, the feeling and desire of satisfaction changed to the form which, as a rule, characterizes the (congenital) urning.

This eviration induces a desire for the passive *rôle*, and, further, for (passive) pederasty. It makes a deeper impress on the character. The character becomes feminine, inasmuch as Sch. now prefers to move in the society of actual females, has an increasing desire for feminine occupations, and, indeed, makes use of the arts of the toilet in order to improve his fading charms and make "conquests."

The foregoing facts, concerning acquired contrary sexual instinct and effemimation, find an interesting confirmation in the following ethnological data:—

Even Herodotus describes a peculiar disease which frequently affected the Scythians. The disease consisted in this: that men became effeminate in character, put on female garments, did the work of women, and even became effeminate in appearance. As an explanation of this insanity of the Scythians,¹ Herodotus relates the myth that the goddess Venus, angered by the plundering of the temple at Ascalon by the Scythians, had made women of these plunderers and their posterity.

¹ Comp. Sprengel, "Apologie des Hippokrates," Leipzig, 1792, p. 611; Friedreich, "Literärgeschichte der psych. Krankheiten," 1830, p. 31; Lallemand, "Des pertes séminales," Paris, 1836, i, p. 581; Nysten, "Dictionn. de médecine," xi édit., Paris, 1858, Art. "éviration et Maladie des Scythes"; Marandon, "De la maladie des Scythes"; "Annal. médico-psychol.," 1877, Mars, p. 161; Hammond, American Journal of Neurology and Psychiatry, August, 1882.

Hippocrates, not believing in supernatural diseases, recognized that impotence was here a causative factor, and explained it, though incorrectly, as due to the custom of the Scythians, by attributing it to disease of the jugular veins induced by excessive riding. He thought that these veins were of great importance in the preservation of the sexual powers, and that when they were severed, impotence was induced. Since the Scythians considered their impotence due to divine punishment, and incurable, they put on the clothing of females, and lived as women among women.

It is worthy of note that, according to Klaproth ("Reise in den Kaukasus," Berlin, 1812, v, p. 285) and Chotomski, even at the present time impotence is very frequent among the Tartars, as a result of riding unsaddled horses. The same is observed among the Apaches and Navajos of the Western Continent, who ride excessively, scarcely ever going on foot, and are remarkable for small genitals and mild libido and virility. Sprengel, Lallemand, and Nysten recognized the fact that excessive riding may be injurious to the sexual organs.

Hammond reports analogous observations of great interest concerning the Pueblo Indians of New Mexico. These descendants of the Aztecs cultivate so-called "mujerados," of which every Pueblo tribe requires one in the religious ceremonies (actual orgies in the spring), in which pederasty plays an important part. In order to cultivate a "mujerado," a very powerful man is chosen, and he is made to masturbate excessively and ride constantly. Gradually such irritable weakness of the genital organs is engendered that, in riding, great loss of semen is induced. This condition of irritability passes into paralytic impotence. Then the testicles and penis atrophy, the hair of the beard falls out, the voice loses its depth and compass, and physical strength and energy decrease. Inclinations and disposition become feminine. The "mujerado" loses his position in society as a man. He takes on feminine manners and customs, and associates with women. Yet, for religious reasons, he is held in honor. It is probable that, at other times than during the festivals, he is used by the chiefs for pederasty. Hammond had an opportunity to examine two "mujerados." One had become such seven years before, and was thirty-five years old at the time. Seven years before, he was entirely masculine and potent. He had noticed gradual atrophy of the testicles and penis. At the same time he lost libido and the power of erection. He differed in nowise, in dress and manner, from the women among whom Hammond found him. The genital hair was wanting, the penis was shrunken, the scrotum lax and pendulous, and the testicles were very much atrophied and no longer sensitive to pressure. The "mujerado" had large mammae like a pregnant woman, and asserted that he had nursed several children whose mothers had died. A second "mujerado," aged thirty-six, after he had been ten years in the condition, presented the same peculiarities, though with less de-

velopment of mammae. Like the first, the voice was high and thin. The body was plump.¹

*III. Degree: Stage of Transition to Metamorphosis
Sexualis Paranoica.*

A further degree of development is represented by those cases in which bodily sensation is also transformed in the sense of a *transmutatio sexus*. In this respect the following case is unique:—

¹ The following description of the "bote" is taken from Dr. J. G. Kiernan's article on "Responsibility in Sexual Perversion," read before the Chicago Medical Society, March 7, 1892: "In accordance with the well-known physiological law, that too frequent excitation of a nerve exhausts the reaction of that nerve to that excitant, sexual excess exhausts the normal reaction, whence it occurs that abnormal stimulus is required and the vice type of sexual perversion results. Such vice types crop up among savages. Dr. A. B. Holder (N. Y. Med. Jour., 1889) describes a sexual pervert called the 'bote' by the Montana and the 'burdach' by the Washington Indians. Such a pervert is found among all the tribes of the Northwest. Like all other sexual perverts, these 'botes' can recognize each other. Dr. Holder has found that the 'bote' wears the squaw dress, parts his hair like a squaw, and assumes feminine speech and manners. Their features are often masculine. In childhood feminine dress and manners are assumed, but not until puberty do 'bote' practices result. These consist in taking the male organ of the active party in the lips of the 'bote,' who experiences the sexual orgasm at the same time. A 'bote' examined by Dr. Holder was a splendidly formed fellow, of prepossessing face, in perfect health, active in movement, and happy in disposition. By offering payment, he induced him to submit himself, though with considerable reluctance, to a thorough examination. He was five feet eight inches high, weighed one hundred and fifty-eight pounds, and had a frank, intelligent face,—being an Indian, of course beardless. He was thirty-three years of age, and had worn woman's dress for twenty-eight years. His dress was the usual dress of the Indian female, consisting of four articles,—a single dress or gown of half a dozen yards of cloth, made loose with wide sleeves, and skirt reaching to the ankles, the skirt and body of one piece, very much like the 'Mother Hubbard' *negligée* worn by ladies; a beaded belt loosely confining this at the waist; stockings from government annuity goods, and buckskin moccasins extending above the ankles. The hair, twenty-four or twenty-six inches long, was parted in the centre and allowed to hang loose in two masses behind the shoulders. Since among the Sioux and some other tribes it is usual for men to wear their hair in this way, it is well to observe that in this tribe (Absaroke) the men usually wear the hair in long braids, and always part it on the side and 'roach' the front. His skin was smooth and free from hair, there being absolutely none on the legs, arms, or breast, or in the arm-pits. This is of no special significance, as male and female Indians are both free from hair on these parts of the body. The mammae were as rudimentary as those of the male. When he removed his dress he threw his thighs together so as to completely conceal the organs, whether male or female; such a movement is made by timid women under examination,—a movement usually successful in the female, owing to the non-projecting character of the genitals and to the rotundity of the thighs; but not usually easy, for the reverse reasons, in the male. In this the 'bote'—either from the conformation of the thighs, which had the feminine rotundity, or from skill acquired by habit—succeeded completely. When he separated his thighs, male organs came into view, in size perhaps not quite so large as the physique of the man would indicate, but in position and shape altogether normal. The penis was flaccid. The 'bote' in habits very closely resembles a class described by Hippocrates among the Scythians of Caucasus, called by the Greeks *anandreis*, a word strikingly similar in meaning to 'bote.'”—TRANS.

Case 99. *Autobiography.* "Born in Hungary in 1844, for many years I was the only child of my parents; for the other children died for the most part of general weakness. A brother came late, who is still living.

"I come of a family in which nervous and mental diseases have been numerous. It is said that I was very pretty as a little child, with blonde locks and transparent skin; very obedient, quiet, and modest, so that I was taken everywhere in the society of ladies without any offense on my part.

*Childhood
Carries*

"With a very active imagination—my enemy through life—my talents developed rapidly. I could read and write at the age of four; my memory reaches back to my third year. I played with everything that fell into my hands,—with leaden soldiers, or stones, or ribbons from a children's store; but a machine for working in wood, that was given to me as a present, I did not like. I liked best to be at home with my mother, who was everything to me. I had two or three friends, with whom I got on good-naturedly; but I liked to play with their sisters quite as well, who always treated me like a girl, which at first did not embarrass me. I must have already been on the road to become just like a girl; at least, I can still well remember how it was always said: 'He is not intended for a boy.' At this I tried to play the boy,—imitated my companions in everything, and tried to surpass them in wildness. In this I succeeded. There was no tree or building too high for me to reach its top. I took great delight in soldiers. I avoided girls more, because I did not wish to play with their play-things; and it always annoyed me that they treated me so much like one of themselves.

"In the society of mature people, however, I was always modest, and, also, always regarded with favor. Fantastic dreams about wild animals—which once drove me out of bed without waking me—frequently troubled me. I was always very simply, but very elegantly, dressed, and thus developed a taste for beautiful clothing. It seems peculiar to me that, from the time of my school-days, I had a partiality for ladies' gloves, which I put on secretly as often as I could. Thus, when once my mother was about to give away a pair of gloves, I made great opposition to it, and told her, when she asked why I acted so, that I wanted them myself. I was laughed at; and from that time I took good care not to display my preference for female things. Yet my delight in them was very great. I took especial pleasure in masquerade costumes,—i.e., only in female attire. If I saw them, I envied their owners. What seemed to me the prettiest sight was: two young men, beautifully dressed as white ladies, with masks on; and yet I would not have shown myself to others as a girl for anything; I was so afraid of being ridiculed. At school I worked very hard, and was always among the first. From childhood my parents taught me that duty came first; and they always set me an example. It was also a pleasure for me to

attend school; for the teachers were kind, and the elder scholars did not plague the younger ones. We left my first home; for my father was compelled, on account of his business,—which was dear to him,—to separate from his family for a year. We moved to Germany. Here there was a stricter, rougher manner, partly in teachers and partly in scholars; and I was again ridiculed on account of my girlishness. My schoolmates went so far as to give a girl, who had exactly my features, my name, and me hers; so that I hated the girl. But I later came to be on terms of friendship with her after her marriage. My mother tried to dress me elegantly; but this was repugnant to me, because it made me the object of joke. So, finally, I was delighted when I had correct trousers and coats. But with these came a new annoyance. They irritated my genitals, particularly when the cloth was rough; and the touch of tailors while measuring me, on account of their tickling, which almost convulsed me, was unendurable, particularly about the genitals. Then I had to practice gymnastics; and I simply could do nothing at all, or only indifferently the things that girls cannot do easily. While bathing I was troubled by feeling ashamed to undress; but I liked to bathe. Until my twelfth year I had a great weakness in my back. I learned to swim late, but ultimately so well that I took long swims. At thirteen I had pubic hair, and was about six feet tall; but my face was feminine until my eighteenth year, when my beard came in abundance and gave me rest from resemblance to woman. An inguinal hernia that was acquired in my twelfth year, and cured when I was twenty, gave me much trouble, particularly in gymnastics. Besides, from my twelfth year on, I had, after sitting long, and particularly while working at night, an itching, burning, and twitching, extending from the penis to my back, which the acts of sitting and standing increased, and which was made worse by catching cold. But I had no suspicion whatever that this could be connected with the genitals. Since none of my friends suffered in this way, it seemed strange to me; and it required the greatest patience to endure it; the more owing to the fact that my abdomen troubled me.

"In *sexualibus* I was still perfectly innocent; but now, as at the age of twelve or thirteen, I had a definite feeling of preferring to be a young lady. A young lady's form was more pleasing to me; her quiet manner, her deportment, but particularly her attire, attracted me. But I was careful not to allow this to be noticed; and yet, I am sure that I should not have shrunk from the castration-knife, could I have thus attained my desire. If I had been asked to say why I preferred female attire, I could have said nothing more than that it attracted me powerfully; perhaps, too, I seemed to myself, on account of my uncommonly white skin, more like a girl. The skin of my face and hands, particularly, was very sensitive. Girls liked my society; and, though I should have preferred to have been with them constantly, I avoided them when I could; for I had to exaggerate in order not to appear feminine. In

my heart I always envied them. I was particularly envious when one of my young girl friends got long dresses and wore gloves and veils. When, at the age of fifteen, I was on a journey, a young lady, with whom I was boarding, proposed that I mask as a lady and go out with her; but, owing to the fact that she was not alone, I did not acquiesce, much as I should have liked it. Others stood on very little ceremony with me. While on this journey, I was pleased at seeing boys in one city wearing blouses with short sleeves, and the arms bare. A lady elaborately dressed was like a goddess to me; and if even her hand touched me coldly I was happy and envious, and only too gladly would have put myself in her place in the beautiful garments and lovely form. Nevertheless, I studied assiduously, and passed through the Realschule and the Gymnasium in nine years, passing a good final examination. I remember, when fifteen, to have first expressed to a friend the wish to be a girl. In answer to his question, I could not give the reason why. At seventeen I got into fast society; I drank beer, smoked, and tried to joke with waiter-girls. The latter liked my society, but they always treated me as if I wore petticoats. I could not take dancing lessons, they repelled me so; but if I could have gone as a mask, it would have been different. My friends loved me dearly; I hated only one, who seduced me into onanism. Shame on those days, which injured me for life! I practiced it quite frequently, but in it seemed to myself like a double man. I cannot describe the feeling; I think it was masculine, but mixed with feminine elements. I could not approach girls; I feared them, but they were not strange to me. They impressed me as being more like myself; I envied them. I would have denied myself all pleasures if, after my classes, at home I could have been a girl and thus have gone out. Crinoline and a smoothly-fitting glove were my ideals. With every lady's gown I saw I fancied how I should feel in it,—*i.e.*, as a lady. I had no inclination toward men. But I remember that I was somewhat lovingly attached to a very handsome friend with a girl's face and dark hair, though I think I had no other wish than that we both might be girls.

"At the high-school I finally once had coitus; *hoc modo sensi, me libentius sub puella concubuisse et penem meum cum cunno mutatum maluisse*. To my astonishment, too, the girl had to treat me as a girl, and did it willingly; but she treated me as if I were she (she was still quite inexperienced, and, therefore, did not laugh at me).

"When a student, at times I was wild, but I always felt that I assumed this wildness as a mask. I drank and duelled, but I could not take lessons in dancing, because I was afraid of betraying myself. My friendships were close, but without other thoughts. It pleased me most to have a friend masked as a lady, or to study the ladies' costumes at a ball. I understood such things perfectly. Gradually I began to feel like a girl.

" On account of unhappy circumstances, I twice attempted suicide. Without any cause I once slept fourteen days, had many hallucinations (visual and auditory at the same time), and was with both the living and the dead. The latter habit of thought remains. I also had a friend (a lady) who knew my hobby and put on my gloves for me; but she always looked upon me as a girl. Thus I understood women better than other men did, and in what they differed from men; so I was always treated *more feminarum*,—as if they had found in me a female friend. On the whole, I could not endure obscenity, and indulged in it myself only out of braggadocio when it was necessary. I soon overcame my aversion to foul odors and blood, and even liked them. I was wanting in only one respect: I could not understand my own condition. I knew that I had feminine inclinations, but believed that I was a man. Yet I doubt whether, with the exception of the attempts at coitus, which never gave me pleasure (which I ascribe to onanism), I ever admired a woman without wishing I were she; or without asking myself whether I should not like to be the woman, or be in her attire. Obstetrics I learned with difficulty (I was ashamed for the exposed girls, and had a feeling of pity for them); and even now I have to overcome a feeling of fright in obstetrical cases; indeed, it has happened that I thought I felt the traction myself. After filling several positions successfully as a physician, I went through a military campaign as a volunteer surgeon. Riding, which, while a student, was painful to me, because in it the genitals had more of a feminine feeling, was difficult for me (it would have been easier in the female style).

" Still, I always thought I was a man with obscure masculine feeling; and whenever I associated with ladies, I was still soon treated as an inexperienced lady. When I wore a uniform for the first time, I should have much preferred to have slipped into a lady's costume, with a veil; I was disturbed when the stately uniform attracted attention. In private practice I was successful in the three principal branches. Then I made another military campaign; and during this I came to understand my nature; for I think that, since the first ass, no beast of burden has ever had to endure with so much patience as I have. Decorations were not wanting, but I was indifferent to them.

" Thus I went through life, such as it was, never satisfied with myself, full of dissatisfaction with the world, and vacillating between sentimentality and a wildness that was for the most part affected.

" My experience as a candidate for matrimony was very peculiar. I should have preferred not to marry, but family circumstances and practice forced me to it. I married an energetic, amiable lady, of a family in which female government was rampant. I was in love with her as much as one of us can be in love,—*i.e.*, what we love we love with our whole hearts, and live in it, even though we do not show it as much as a genuine man does. We love our brides with all the love of a woman, almost

as a woman might love her bridegroom. But I cannot say this for myself; for I still believed that I was but a depressed man, who would come to himself, and find himself out by marriage. But, even on my marriage-night, I felt that I was only a woman in man's form; sub femina locum meum esse mihi visum est. On the whole, we lived contented and happy, and for two years were childless. After a difficult pregnancy, during which I was in mortal fear of death, the first boy was born in a difficult labor,—a boy on whom a melancholy nature still hangs; who is still of melancholy disposition. Then came a second, who is very quiet; a third, full of peculiarities; a fourth, a fifth; and all have predisposition to neurasthenia. Since I always felt out of my own place, I went much in gay society; but I always worked as much as human strength would allow. I studied and operated; and I experimented with many drugs and methods of cure, always on myself. I left the regulation of the house to my wife, as she understood house-keeping very well. My marital duties I performed as well as I could, but without personal satisfaction. Since the first coitus, the masculine position in it has been repugnant, and, too, difficult for me. I should have much preferred to have the other rôle. When I had to deliver my wife, it almost broke my heart; for I knew how to appreciate her pain. Thus we lived long together, until severe gout drove me to various baths, and made me neurasthenic. At the same time, I became so anaemic that every few months I had to take iron for some time; otherwise I would be almost chlorotic or hysterical, or both. Stenocardia often troubled me; then came unilateral cramps of chin, nose, neck, and larynx; hemicrania and cramps of the diaphragm and chest-muscles. For about three years I had a feeling as if the prostate were enlarged,—a bearing-down feeling, as if giving birth to something; and, also, pain in the hips, constant pain in the back, and the like. Yet, with the strength of despair, I fought against these complaints, which impressed me as being female or effeminate, until three years ago, when a severe attack of arthritis completely broke me down.

“But before this terrible attack of gout occurred, in despair, to lessen the pain of gout, I had taken hot baths, as near the temperature of the body as possible. On one of these occasions it happened that I suddenly changed, and seemed to be near death. I sprang with all my remaining strength out of the bath: I had felt exactly like a woman with libido. Too, at the time when the extract of Indian hemp came into vogue, and was highly prized, in a state of fear of a threatened attack of gout (feeling perfectly indifferent about life), I took three or four times the usual dose of it, and almost died of haschisch poisoning. Convulsive laughter, a feeling of unheard of strength and swiftness, a peculiar feeling in brain and eyes, millions of sparks streaming from the brain through the skin,—all these feelings occurred. But I could not force myself to speak. All at once I saw myself a woman from my toes

to my breast; I felt, as before while in the bath, that the genitals had shrunken, the pelvis broadened, the breasts swollen out; a feeling of unspeakable delight came over me. I closed my eyes, so that at least I did not see the face changed. My physician looked as if he had a gigantic potatoe instead of a head; my wife had the full moon on her nates. And yet I was strong enough to briefly record my will in my note-book when both left the room for a short time.

"But who could describe my fright, when, on the next morning, I awoke and found myself feeling as if completely changed into a woman; and when, on standing and walking, I felt vulva and mammæ! When at last I raised myself out of bed, I felt that a complete transformation had taken place in me. During my sickness a visitor said: 'He is too patient for a man.' And the visitor gave me a plant in bloom, which seemed strange, but pleased me. From that time I was patient, and would do nothing in a hurry; but I became tenacious, like a cat, though, at the same time, mild, forgiving, and no longer bearing enmity,—in short, I had a woman's disposition. During the last sickness I had many visual and auditory hallucinations,—spoke with the dead, etc.; saw and heard familiar spirits; felt like a double person; but, while lying ill, I did not notice that the man in me had been extinguished. The change in my disposition was a piece of good fortune which came over me like lightning, and which, had it come with me feeling as I formerly did, would have killed me; but now I gave myself up to it, and no longer recognized myself. Owing to the fact that I still often confounded neurasthenic symptoms with the gout, I took many baths, until an itching of the skin with the feeling of scabies, instead of being diminished, was so increased that I gave up all external treatment (I was made more and more anaemic by the baths), and hardened myself as best I could. But the imperative female feeling remained, and became so strong that I wear only the mask of a man, and in everything else feel like a woman; and gradually I have lost memory of the former individuality. What was left of me from the gout, the influenza ruined entirely.

"*Present Condition:* I am tall, slightly bald, and the beard is growing gray. I begin to stoop. Since having the influenza, I have lost about a quarter of my strength. Owing to a valvular lesion, my face looks somewhat red; full beard; chronic conjunctivitis; more muscular than fat. The left foot seems to be developing varicose veins, and it often goes to sleep; but it is not really thickened, though it seems to be.

"The mammary region, though small, swells out perceptibly. The abdomen is feminine in form; the feet are placed like a woman's, and the calves, etc., are feminine; and it is the same with arms and hands. I can wear ladies' hose, and gloves, $7\frac{1}{2}$ to $7\frac{3}{4}$ in size. I also wear a corset without annoyance. My weight varies between 168 and 184 pounds. Urine without albumen or sugar, but it contains an excess of uric acid. But if there is not too much uric acid in it, it is clear, and almost as

clear as water after any excitement. Bowels usually regular; but should they not be, then come all the symptoms of female obstipation. Sleep is poor,—for weeks at a time only two or three hours long. Appetite quite good; but, on the whole, my stomach will not bear more than that of a strong woman, and reacts to irritating food with cutaneous eruption and burning in the urethra. The skin is white, and, for the most part, feels quite smooth; there has been unbearable cutaneous itching for the last two years; but during the last few weeks it has diminished, and is now present only in the popliteal spaces and on the scrotum.

“Tendency to perspire. Perspiration was previously as good as wanting, but now there are all the odious peculiarities of the female perspiration, particularly about the lower part of the body; so that I have to keep myself cleaner than a woman. (I perfume my handkerchief, and use perfumed soap and *eau-de-Cologne*.)

“*General Feeling*: I feel like a woman in a man’s form; and even though I often am sensible of the man’s form, yet it is always in a feminine sense. Thus, for example, I feel the penis as clitoris; the urethra as urethra and vaginal orifice, which always feels a little wet, even when it is actually dry; the scrotum as labia majora; in short, I always feel the vulva. And all that that means one alone can know who feels or has felt so. But the skin all over my body feels feminine; it receives all impressions, whether of touch, of warmth, or whether unfriendly, as feminine, and I have the sensations of a woman. I cannot go with bare hands, as both heat and cold trouble me. When the time is past when we men are permitted to carry sun-umbrellas, I have to endure great sensitiveness of the skin of my face, until sun-umbrellas can again be used. On awaking in the morning, I am confused for a few moments, as if I were seeking for myself; then the imperative feeling of being a woman awakens. I feel the sense of the vulva (that one is there), and always greet the day with a soft or loud sigh; for I have fear again of the play that must be carried on throughout the day. I had to learn everything anew; the knife—apparatus, everything—has felt different for the last three years; and with the change of muscular sense I had to learn everything over again. I have been successful, and only the use of the saw and bone-chisel are difficult; it is almost as if my strength were not quite sufficient. On the other hand, I have a keener sense of touch in working with the curette in the soft parts. It is unpleasant that, in examining ladies, I often feel their sensations; but this, indeed, does not repel them. The most unpleasant thing I experience is foetal movement. For a long time—several months—I was troubled by reading the thoughts of both sexes, and I still have to fight against it. I can endure it better with women; with men it is repugnant. Three years ago I had not yet consciously seen the world with a woman’s eyes; this change in the relation of the eyes to the brain came almost suddenly, with violent headache. I was with a lady whose sexual feeling

was reversed, when suddenly I saw her changed in the sense I now feel myself,—viz., she as man,—and I felt myself a woman in contrast with her; so that I left her with ill-concealed vexation. At that time she had not yet come to understand her own condition perfectly.

“ Since then, all my sensory impressions are as if they were feminine in form and relation. The cerebral system almost immediately adjusted itself to the vegetative; so that all my ailments were manifested in a feminine way. The sensitiveness of all nerves, particularly that of the auditory and olfactory and trigeminal, increased to a condition of nervousness. If only a window slammed, I was frightened inwardly; for a man dare not tremble at such things. If food is not absolutely fresh, I perceive a cadaverous odor. I could never depend on the trigeminus; for the pain would jump whimsically from one branch of it to another; from a tooth to an eye. But, since my transformation, I bear toothache and migraine more easily, and have less feeling of fear with stenocardia. It seems to me a strange fact that I feel myself to be a fearful, weak being, and yet, when danger threatens, I am much rather cool and collected; and this is true in dangerous operations. The stomach rebels against the slightest indiscretion (in female diet) that is committed without thought of the female nature, either by ructus or other symptoms; but particularly against abuse of alcoholics. The indisposition after intoxication that a man who feels like a woman experiences is much worse than any a student could get up. It seems to me almost as if one feeling like a woman were entirely controlled by the vegetative system.

“ Small as my nipples are, they demand room, and I feel them as mammae; just as during the beginning of puberty, the nipples swelled and pained. On this account, the white shirt, the waistcoat, and the coat trouble me. I feel as though the pelvis were female; and it is the same with the anus and nates. At first the sense of a female abdomen was troublesome to me; for it cannot bear trousers, and it always possesses or induces the feminine feeling. I also have the imperative feeling of a waist. It is as if I were robbed of my own skin, and put in a woman’s skin that fitted me perfectly, but which felt everything as if it covered a woman; and whose sensations passed through the man’s body, and exterminated the masculine element. The testes, even though not atrophied or degenerated, are still no longer testes, and often cause me pain, with the feeling that they belong in the abdomen, and should be fastened there; and their mobility often bothers me.

“ Every four weeks, at the time of the full moon, I have the mollemen of a woman for five days, physically and mentally, only I do not bleed; but I have the feeling of a loss of fluid; a feeling that the genitals and abdomen are (internally) swollen. A very pleasant period comes when, afterward and later in the interval for a day or two, the physiological desire for procreation comes, which with all power permeates the

woman. My whole body is then filled with this sensation, as an immersed piece of sugar is filled with water, or as full as a soaked sponge. It is like this: first, a woman longing for love, and then, for a man; and, in fact, the desire, as it seems to me, is more a longing to be possessed than a wish for coitus. The intense natural instinct or the feminine concupiscence overcomes the feeling of modesty, so that indirectly coitus is desired. I have never felt coitus in a masculine way more than three times in my life; and even if it were so in general, I was always indifferent about it. But, during the last three years, I have experienced it passively, like a woman; in fact, oftentimes with the feeling of feminine ejaculation; and I always feel that I am impregnated. I am always fatigued as a woman is after it, and often feel ill, as a man never does. Sometimes it caused me so great pleasure that there is nothing with which I can compare it; it is the most blissful and powerful feeling in the world; at that moment the woman is simply a vulva that has devoured the whole person.

"During the last three years I have never lost for an instant the feeling of being a woman, and now, owing to habit, this is no longer annoying to me, though during this period I have felt debased; for a man could endure to feel like a woman without a desire for enjoyment; but when desires come! The happiness ceases; then come the burning, the heat, the feeling of turgor of the genitals (when the penis is not in a state of erection the genitals do not play any part). In case of intense desire, the feeling of sucking in the vagina and vulva is really terrible—a hellish pain of lust hardly to be endured. If I then have opportunity to perform coitus, it is better; but, owing to defective sense of being possessed by the other, it does not afford complete satisfaction; the feeling of sterility comes with its weight of shame, added to the feeling of passive copulation and injured modesty. I seem almost like a prostitute. Reason does not give any help; the imperative feeling of femininity dominates and rules everything. The difficulty in carrying on one's occupation, under such circumstances, is easily appreciated; but it is possible to force one's self to it. Of course, it is almost impossible to sit, walk, or lie down; at least, any one of these cannot be endured long; and with the constant touch of the trousers, etc., it is unendurable.

"Marriage then, except during coitus, where the man has to feel himself a woman, is like two women living together, one of whom regards herself as in the mask of a man. If the periodical molimen fail to occur, then come the feelings of pregnancy or of sexual satiety, which a man never experiences, but which take possession of the whole being, just as the feeling of femininity does, and are repugnant in themselves; and, therefore, I gladly welcome the regular molimen again. When erotic dreams or ideas occur, I see myself in the form I have as a woman, and see erected organs presenting. Since the anus feels feminine, it would not be hard to become a passive pederast; only positive religious command

prevents it, as all other deterrent ideas would be overcome. Since such conditions are repugnant, as they would be to any one, I have a desire to be sexless, or to make myself sexless. If I had been single, I should long ago have taken leave of testes, scrotum, and penis.

"Of what use is female pleasure, when one does not conceive? What good comes from excitation of female love, when one has only a wife for gratification, even though copulation is felt as though it were with a man? What a terrible feeling of shame is caused by the feminine perspiration! How the feeling for dress and ornament lowers a man! Even in his changed form, even when he can no longer recall the masculine sexual feeling, he would not wish to be forced to feel like a woman. He still knows very well that, before, he did not constantly feel sexually; that he was merely a human being uninfluenced by sex. Now, suddenly, he has to regard his former individuality as a mask, and constantly feel like a woman, only having a change when, every four weeks, he has his periodical sickness, and in the intervals his insatiable female desire. If he could but awake without immediately being forced to feel like a woman! At last he longs for a moment in which he might raise his mask; but that moment does not come. He can only find amelioration of his misery when he can put on some bit of female attire or finery, an under-garment, etc.; for he dare not go about as a woman. To be compelled to fulfill all the duties of a calling with the feeling of being a woman costumed as a man, and to see no end of it, is no trifle. Religion alone saves from a great lapse; but it does not prevent the pain when temptation affects the man who feels as a woman; and so it must be felt and endured! When a respectable man who enjoys an unusual degree of public confidence, and possesses authority, must go about with his vulva—imaginary though it be; when one, leaving his arduous daily task, is compelled to examine the *toilette* of the first lady he meets, and criticise her with feminine eyes, and read her thoughts in her face; when a journal of fashions possesses an interest equal to that of a scientific work (I felt this as a child); when one must conceal his condition from his wife, whose thoughts, the moment he feels like a woman, he can read in her face, while it becomes perfectly clear to her that he has changed in body and soul,—what must all this be? The misery caused by the feminine gentleness that must be overcome! Oftentimes, of course, when I am away alone, it is possible to live for a time more like a woman; for example, to wear female attire, especially at night, to keep gloves on, or to wear a veil or a mask in my room, so that thus there is rest from excessive libido. But when the feminine feeling has once gained an entrance, it imperatively demands recognition. It is often satisfied with a moderate concession, such as the wearing of a bracelet above the cuff; but it imperatively demands some concession. My only happiness is to see myself dressed as a woman without a feeling of shame; indeed, when my face is veiled or masked, I prefer it so, and thus think of myself. Like

every one of Fashion's fools, I have a taste for the prevailing mode; so greatly am I transformed. To become accustomed to the thought of feeling only like a woman, and only to remember the previous manner of thought to a certain extent in contrast with it; and, at the same time, to express one's self as a man,—it requires a long time and an infinite amount of persistence.

"Nevertheless, in spite of everything, it will happen that I betray myself by some expression of feminine feeling, either in *sexualibus*, when I say that I feel so and so, expressing what a man without the female feeling cannot know; or when I accidentally betray that female attire is my talent. Before women, of course, this does not amount to anything; for a woman is greatly flattered when a man understands something of her matters; but this must not be displayed to my own wife. How frightened I once was when my wife said to a friend that I had great taste in ladies' dress! How a haughty, stylish lady was astonished when, as she was about to make a great error in the education of her little daughter, I described to her in writing and verbally all the feminine feelings! To be sure, I lied to her, saying that my knowledge had been gleaned from letters. But her confidence in me is as great as ever; and the child, who was on the road to insanity, is rational and happy. She had confessed all the feminine inclinations as sins; now she knows what, as a girl, she must bear and control by will and religion; and she feels that she is human. Both ladies would laugh heartily, if they knew that I had only drawn on my own sad experience. I must also add that I now have a finer sense of temperature and, besides, a sense of the elasticity of the skin and tension of the intestines, etc., in patients, that was unknown to me before; that in operations and autopsies, poisonous fluids more readily penetrate my (uninjured) skin. Every autopsy causes me pain; examination of a prostitute, or a woman having a discharge, a cancerous odor, or the like, is actually repugnant to me. In all respects I am now under the influence of antipathy and sympathy, from the sense of color to my judgment of a person. Women usually see in each other the periodical sexual disposition; and, therefore, a lady wears a veil, if she is not always accustomed to wear one, and usually she perfumes herself, even though it be only with handkerchief or gloves; for her olfactory sense in relation to her own sex is intense. Odors have an incredible effect on the female organism; thus, for example, the odors of violets and roses quiet me, while others disgust me; and with *ihlang-ihlang* I cannot contain myself for sexual excitement. Contact with a woman seems homogeneous to me; coitus with my wife seems possible to me because she is somewhat masculine, and has a firm skin; and yet it is more an *amor lesbicus*.

"Besides, I always feel passive. Often at night, when I cannot sleep for excitement, it is finally accomplished, *si femora mea distensa habeo, sicut mulier cum viro concumbens*, or if I lie on my side; but an

arm or the bed-clothing must not touch the mammae, or there is no sleep; and there must be no pressure on the abdomen. I sleep best in a chemise and night-robe, and with gloves on; for my hands easily get cold. I am also comfortable in female drawers and petticoats, because they do not touch the genitals. I liked female dresses best when crinoline was worn. Female dresses do not annoy the feminine-feeling man; for he, like every woman, feels them as belonging to his person, and not as something foreign.

" My dearest associate is a lady suffering with neurasthenia, who, since her last confinement, feels like a man, but who, since I explained these feelings to her, coitus abstinent as much as possible, a thing I, as a husband, dare not do. She, by her example, helps me to endure my condition. She has a more perfect memory of the female feelings, and has often given me good advice. Were she a man and I a young girl, I should seek to win her; for her I should be glad to endure the fate of a woman. But her present appearance is quite different from what it formerly was. She is a very elegantly dressed gentleman, notwithstandinging bosom and hair; she also speaks quickly and concisely, and no longer takes pleasure in the things that please me. She has a kind of melancholy dissatisfaction with the world, but she bears her fate worthily and with resignation, finding her comfort only in religion and the fulfillment of duty. At the time of the menses, she almost dies. She no longer likes female society and conversation, and has no liking for delicacies.

" A youthful friend felt like a girl from the very first, but he had inclinations toward the male sex. His sister had the opposite condition; and when the uterus demanded its right, and she saw herself as a loving woman, in spite of her masculinity, she cut the matter short, and committed suicide by drowning.

" Since complete effemimation, the principal changes I have observed in myself are:—

- " 1. The constant feeling of being a woman from top to toe.
- " 2. The constant feeling of having female genitals.
- " 3. The periodicity of the monthly molimen.
- " 4. The regular occurrence of female desire, though not directed to any particular man.
- " 5. The passive female feeling in coitus.
- " 6. After that, the feeling of impregnation.
- " 7. The female feeling in thought of coitus.
- " 8. At the sight of women, the feeling of being of their kind, and the feminine interest in them.
- " 9. At the sight of men, the feminine interest in them.
- " 10. At the sight of children, the same feeling.
- " 11. The changed disposition and much greater patience.
- " 12. The final resignation to my fate, for which I have nothing to thank but positive religion; without it I should have long ago committed suicide.

"To be a man and to be compelled to feel that chaque femme est futée ou elle désire d'être, is hardly to be endured."

The foregoing autobiography, scientifically so important, was accompanied by the following no less interesting letter:—

"SIR: I must next beg your indulgence for troubling you with my communication. I lost all control, and thought of myself only as a monster before which I myself shuddered. Then your work gave me courage again; and I determined to go to the bottom of the matter, and examine my past life, let the result be what it might. It seemed a duty of gratitude to you to tell you the result of my recollection and observation, since I had not seen any description by you of an analogous case; and, finally, I also thought it might perhaps interest you to learn, from the pen of a physician, how such a worthless human, or masculine, being thinks and feels under the weight of the imperative idea of being a woman.

"It is not perfect; but I no longer have the strength to reflect more upon it, and have no desire to go into the matter more deeply. Much is repeated; but I beg you to remember that any mask may be allowed to fall off, particularly when it is not voluntarily worn, but enforced.

"After reading your work, I hope that, if I fulfill my duties as physician, citizen, father, and husband, I may still count myself among human beings who do not deserve merely to be despised.

"Finally, I wished to lay the result of my recollection and reflection before you, in order to show that one thinking and feeling like a woman can still be a physician. I consider it a great injustice to debar woman from Medicine. A woman, through her feeling, gets on the track of many ailments which, in spite of all skill in diagnosis, remain obscure to a man; at least, in the diseases of women and children. If I could have my way, I should have every physician live the life of a woman for three months; then he would have a better understanding and more consideration in matters affecting the half of humanity from which he comes; then he would learn to value the greatness of women, and appreciate the difficulty of their lot."

Remarks: The badly-tainted patient is originally psycho-sexually abnormal, in that, in character and in the sexual act, he feels as a female. This abnormal feeling remained purely a psychical anomaly until three years ago, when, owing to severe neurasthenia, it received overmastering support in imperative bodily sensations of a *transmutatio sexus*, which now dominate consciousness. Then, to the patient's horror, he felt bodily like a woman; and, under the impulse of his imperative feminine sensations, he experienced a complete transformation of his former masculine feeling, thought, and will; in fact, of his whole *vita sexualis*, in the sense of eviration. At the same time, his ego is able to control these abnormal psycho-physical manifestations, and prevent descent to paranoia,—a

remarkable example of imperative feelings and ideas on the basis of neurotic taint, which is of great value for a comprehension of the way in which the psycho-sexual transformation may be accomplished.

IV. Degree: Metamorphosis Sexualis Paranoica.—A final possible stage in this disease-process is the delusion of a transformation of sex. It arises on the basis of sexual neurasthenia that has developed into neurasthenia universalis, resulting in a mental disease,—paranoia.

The following cases show the development of the interesting neuro-psychological process to its height:—

Case 100. K., aged 36, single, servant, received at the clinic on February 26, 1889, is a typical case of paranoia persecutoria, resulting from neurasthenia sexualis, with olfactory hallucinations, sensations, etc. He comes of a predisposed family. Several brothers and sisters were psychopathic. Patient has an hydrocephalic skull, depressed in the region of the right fontanelle; eyes neuropathic. He has always been very sensual; began to masturbate at nineteen; had coitus at twenty-three; begat three illegitimate children. He gave up further sexual intercourse, on account of fear of begetting more children, and of being unable to provide for them. Abstinence proved very painful to him. He also gave up masturbation, and was then troubled with pollutions. A year and a half ago he became sexually neurasthenic, had diurnal pollutions, became thereafter ill and miserable, and, after a time, generally neurasthenic, finally developing paranoia. A year ago he began to have paræsthetic sensations,—as if there were a great coil in the place of his genitals; and then he felt that his scrotum and penis were gone, and that his genitals were changed into those of a female. He felt the growth of his breasts; that his hair was that of a woman; and that feminine garments were on his body. He thought himself a woman. The people in the street gave utterance to corresponding remarks: "Look at the woman! The old blowhard!" In a half dreamy state, he had the feeling as if he played the part of a woman in coitus with a man. During it he had the most lively feelings of pleasure. During his stay at the clinic, a remission of the paranoia occurred, and, at the same time, a marked improvement of the neurasthenia. Then the feelings and ideas due to a developing metamorphosis sexualis disappeared.

A more advanced case of eviration, on the way to a transformatio sexus paranoica, is the following:—

Case 101. Franz St., aged 33; school-teacher; single; probably of tainted family; always neuropathic; emotional, timid, intolerant of alco-

hol; began to masturbate at eighteen. At thirty there were manifestations of neurasthenia sexualis (pollutions with consequent fatigue, which at last began to occur during the day; pain in the region of the sacral plexus, etc.). Gradually, spinal irritation, pressure in the head, and cerebral neurasthenia were added. Since the beginning of 1885 the patient had given up coitus, in which he no longer experienced pleasurable feeling. He masturbated frequently.

In 1888 he began to have delusions of suspicion. He noticed that he was avoided, and that he had unpleasant odors about him (olfactory hallucinations). In this way he explained the altered attitude of people, and their sneezing, coughing, etc. He smelled corpses and foul urine. He recognized the cause of his bad smells in inward pollutions. He recognized these in a feeling he had as if a fluid flowed up from the symphysis toward the breast. Patient soon left the clinic.

In 1889 he was again received in an advanced stage of paranoia masturbatoria persecutoria (delusions of physical persecution).

In the beginning of May, 1889, the patient attracted notice, in that he was cross when he was addressed as "mister." He protested against it, because he was a woman. Voices told him this. He noticed that his breasts were growing. Some weeks before, others had touched him in a sensual manner. He heard it said that he was a whore. Of late, dreams of pregnancy. He dreamed that, as a woman, he indulged in coitus. He felt the immissio penis, and, during the hallucinatory act, also a feeling of ejaculation.

Head straight; facial form long and narrow; parietal eminences prominent; genitals normally developed.

The following case, observed in the asylum at Illenau, is a pertinent example of lasting delusional alteration of sexual consciousness:—

Case 102. *Metamorphosis Sexualis Paranoica.*—N., aged 23, single, pianist, was received in the asylum at Illenau in the last part of October, 1865. He came of a family in which there was said to be no hereditary taint; but it was tuberculous (father and brother died of pulmonary tuberculosis). Patient, as a child, was weakly and dull, though especially talented in music. He was always of abnormal character; silent, retiring, unsocial, and sullen. He practiced masturbation after fifteen. After a few years neurasthenic symptoms (palpitation of the heart, lassitude, occasional pressure in the head, etc.), and also hypochondriacal symptoms, were manifested. During the last year he had worked with great difficulty. For about six months neurasthenia had increased. He complained of palpitation of the heart, pressure in the head, and sleeplessness; was very irritable, and seemed to be sexually excited. He declared that he must marry for his health. He fell in love with an

artist, but almost at the same time (September, 1865) he fell ill with paranoia persecutoria (ideas of enemies, derision in the street, poison in food; obstacles were placed on the bridges to keep him from going to his *inamorata*). On account of increasing excitement and conflicts with those about him that he considered inimical to him, he was taken to the asylum. At first he presented the picture of a typical paranoia persecutoria with symptoms of sexual, and later general, neurasthenia, though the delusions of persecution did not rest upon this neurotic foundation. It was only occasionally that the patient heard such sentences as this: "Now the semen will be drawn out of him. Now the bladder will be cut out."

In the course of the years 1866-68, the delusions of persecution became less and less apparent, and were for the most part replaced by erotic ideas. The somatic and mental basis was a lasting and powerful excitation of the sexual sphere. The patient fell in love with every woman he saw, heard voices which told him to approach her, and begged to be allowed to marry, declaring that, if he was not given a wife, he would waste away. With continuance of masturbation, in 1869, signs of future effemimation made themselves manifest. "He would, if he should get a wife, love her only platonically." The patient grows more and more peculiar, lives in a circle of erotic ideas, sees prostitution practiced in the asylum, and now and then hears voices which impute immoral conduct with women to him. For this reason he avoids the society of women, and only associates with them for the sake of music when two witnesses are with him.

In the course of the year 1872, the neurasthenic condition became markedly increased. Now paranoia persecutoria again comes into the foreground, and takes on a clinical coloring from the neurotic basis. Olfactory hallucinations occur. Magnetic influences are at work on him (false interpretation of sensations due to spinal asthenia). With continued and intense sexual excitement and excess in masturbation, the process of effemimation constantly progresses. Only episodically is he a man and inclined toward a woman, complaining that the shameless prostitution of the men in the house makes it impossible for a lady to come to him. He is dying of magnetically poisoned air and unsatisfied love. Without love he cannot live. He is poisoned by lewd poison that affects his sexual desire. The lady that he loves is sunk in the lowest vice. The prostitutes in the house have fortune-chains; that is, chains in which, without moving, a man can indulge in lustful pleasure. He is ready now to satisfy himself with prostitutes. He is possessed of a wonderful ray of thought that emanates from his eyes, which is worth twenty millions. His compositions are worth 500,000 francs. With these indications of delusions of grandeur, there are also those of persecution—the food is poisoned by venereal excrement; he tastes and smells poison, hears infamous accusations, and asks for instruments to close his ears. From

August, 1872, however, the signs of effemimation become more and more frequent. He acts somewhat affected, declaring that he can no longer live among men that drink and smoke. He thinks and feels like a woman. He must thenceforth be treated like a woman and transferred to a female ward. He asks for confections and delicate desserts. Occasionally, on account of tenesmus and cystospasm, he asks to be transferred to a lying-in hospital and treated as a woman very ill in pregnancy. The abnormal magnetism of masculine attendants has an unfavorable effect on him. At times he still feels himself to be a man, but in a way which indicates his abnormally altered sexual feeling. He pleads only for satisfaction by means of masturbation, or for marriage without coitus. Marriage is a sensual institution. The girl that he would take for a wife must be a masturbator. About the end of December, 1872, his personality became completely feminine. From that time he remained a woman. He had always been a woman, but in his babyhood a French Quaker, an artist, had put masculine genitals on him, and by rubbing and distorting his thorax had prevented the development of his breasts. After this he demanded to be transferred to the female department, protection from men that wished to violate him, and asked for female clothing. Eventually he also desired to be given employment in a toy-shop, with crocheting and embroidery work to do, or a place in a dress-making establishment with female work. From the time of the transformatio sexus, the patient begins a new reckoning of time. He conceives his previous personality in memory as that of a cousin.

He always speaks of himself in the third person, and calls himself the Countess V., the dearest friend of the Empress Eugenie; asks for perfumes, corsets, etc. He takes the other men of the ward for girls, tries to raise a head of hair, and demands "Oriental Hair-Remover," in order that no one may doubt his gender. He takes delight in praising onanism, for "she had been an onanist from fifteen, and had never desired any other kind of sexual satisfaction." Occasionally neurasthenic symptoms, olfactory hallucinations, and persecutory delusions are observed. All the events up to the time of December, 1872, belong to the personality of the cousin.

The patient's delusion that he is the Countess V. can no longer be corrected. She proves her identity by the fact that the nurse has examined her, and finds her to be a lady. The countess will not marry, because she hates men. Since he is not provided with female clothing and shoes, he spends the greatest part of the day in bed, acts like an invalid lady of position, affectedly and modestly, and asks for bon-bons and the like. His hair is done up in a knot as well as it allows, and the beard is pulled out. Breasts are made out of biscuits.

In 1874 caries began in the left knee-joint, to which pulmonary tuberculosis was soon added. Death on December 2, 1874. Skull normal. Frontal lobes atrophic. Brain anaemic. Microscopical (Dr.

Schüle): In the superior layer of the frontal lobe, ganglion cells somewhat shrunken; in the adventitia of the vessels, numerous fat-corpuscles; glia unchanged; isolated pigment particles and colloid bodies. The lower layers of the cortex normal. Genitals very large; testicles small, lax, and show no change macroscopically on section.

The delusion of sexual transformation, displayed, in its conditions and phases of development, in the foregoing case, is a manifestation remarkably infrequent in the pathology of the human mind. Besides the foregoing cases, personally observed, I have seen such a case, as an episodical phenomenon, in a lady having contrary sexuality (Case 92 of the sixth edition of this work), one in a girl affected with original paranoia, and another in a lady suffering with original paranoia.

Save for a case briefly reported by Arndt, in his text-book (p. 172), and one quite superficially described by Sérieux ("Recherches Clinique," p. 33), and the two cases known to Esquirol, I cannot recall any cases of delusion of sexual transformation in literature. Arndt's case may be briefly given here, though, like Esquirol's cases, it gives nothing concerning the genesis of the delusion:—

Case 103. A middle-aged woman in the asylum at Greifswald thought she was a man, and acted out her belief. She cut her hair short, and parted it on one side in the military fashion. A sharply-cut profile, a nose somewhat large, and a certain heaviness of all the features gave the face something characteristic, and, in combination with the short hair combed smoothly over the ears, gave the whole head a decidedly masculine appearance. She was tall and lean; her voice low and rough; the larynx angularly prominent; her attitude erect; her gait, like all her movements, heavy, but not awkward. She looked like a man in female dress. Asked how she had come to think she was a man, she would almost always cry excitedly: "Just look at me! Don't I look like a man? I feel like a man, too. I have always felt so, but I only gradually came to understand it clearly. The man who should be my husband is not a real man. I raised my children myself. I always felt somewhat like this, but I came to understand later. Did I not always work like a man? The man who passed for my husband only helped. He did what I planned. From my youth I have been more masculine than feminine. I have always had more liking for the garden and farm than for work in the house and kitchen. But I never understood the reason. Now I know I am a man, and I shall bear myself like one. It is a shame to make me always wear women's clothes."

Case 104. X., aged 26, tall, and of handsome appearance. Since his earliest youth he has loved to wear female attire. As he grew up, he managed it so that, when he was a participant in theatricals, he always had a female part. After an attack of mental excitement, he imagined that he was actually a woman, and tried to convince others of it.

He liked to undress himself, and dress his hair and put on female clothing. In this state he wished to go out on the street. In other respects he was perfectly reasonable. He would spend the whole day arranging his hair and looking at himself in the glass, costuming himself in a night-dress as much like a woman as possible. In walking he imitated women. One day, when Esquirol acted as if about to lift up his dress, he flew into a passion and upbraided him for his want of modesty (Esquirol).

Case 105. Mrs. X., widow. Owing to the death of her husband and loss of fortune, she had been greatly troubled in mind. She became disturbed mentally, and was admitted to the Salpêtrière after attempting suicide.

Mrs. X., lean, thin; constantly maniacal; she believes herself a man, and flies angry if she is addressed as "madam." Once, when male clothing was placed at her disposal, she was beside herself with joy. She died, in 1802, of a consumptive malady; and she expressed her delusion of being a man until shortly before her death (Esquirol).

I have already mentioned the interesting relations existing between the facts of delusional transformation of sex and the so-called insanity of the Scythians.

Marandon ("Annales médico-psychologiques," 1877, p. 161), like others, has erroneously presumed that with the ancient Scythians there was an actual delusion, and that the condition was not merely that of eviration. According to the law of empirical actuality, the delusion, so infrequent to-day, must also have been very infrequent in ancient times. Since it can only be conceived as arising on the basis of a paranoia, there can be no thought of its endemic occurrence; it can only be regarded as a superstitious manifestation of eviration (the result of anger of the goddess), as is also evident from the statements of Hippocrates.

The facts of the so-called Scythian insanity, as well as the facts lately learned about the Pueblo Indians, are also noteworthy anthropologically, in that atrophy of the testes and genitals in general, and approximation to the female type, physically

and mentally, were observed. This is the more remarkable, since, in men who have lost their procreative organs, such a reversal of instinct is quite as unusual as in women, *mutatis mutandis*, after the natural or artificial climacteric.

B. *Homo-Sexual Feeling as an Abnormal Congenital Manifestation.*¹—The essential feature of this strange manifestation of the sexual life is the want of sexual sensibility for the opposite sex, even to the extent of horror, while sexual inclination and impulse toward the same sex are present. At the same time, the genitals are normally developed, the sexual glands perform their functions properly, and the sexual type is completely differentiated.

Feeling, thought, will, and the whole character, in cases of the complete development of the anomaly, correspond with the peculiar sexual instinct, but not with the sex which the individual represents anatomically and physiologically. This abnormal mode of feeling may not infrequently be recognized in the manner, dress, and calling of the individuals, who may go so far as to yield to an impulse to don the distinctive clothing corresponding with the sexual *rôle* in which they feel themselves to be.

Anthropologically and clinically, this abnormal manifestation presents various degrees of development:—

1. Traces of hetero-sexual, with predominating homo-sexual, instinct (psycho-sexual hermaphroditism).
2. There exists inclination only toward the same sex (homo-sexuality).

¹ Bibliography (besides works mentioned hereafter): Tardieu, Des attentats aux moeurs, 7 édit.; 1878, p. 210.—Hofmann, Lehrb. d. ger. Med., 3 Aufl., pp. 172, 850.—Gley, Revue philosophique, 1884, Nr. 1.—Magnan, Annal. med.-psychol., 1885, p. 458.—Shaw and Ferris, Journal of Nervous and Mental Disease, 1883, April.—Bernhardi, Der Uranismus, Berlin (Volksbuchhandlung), 1882.—Chevalier, De l'inversion de l'instinct sexual, Paris, 1885.—Ritti, Gaz. hebdom. de médecine et de chirurg., 1878, 4. Januar.—Tamassia, Rivista sperim., 1878, pp. 97-117.—Lombroso, Archiv. di Psichiatr., 1881.—Charcot et Magnan, Archiv. de neurologie, 1882, Nr. 7, 12.—Moll, Die conträre Sexualempfindung, Berlin, 1891 (numerous bibliographic references).—Chevalier, Archives de l'anthropologie criminelle, vol. v, No 27; vol. vi, No. 31.—Reuss, "Aberrations du sens générique," Annales d'hygiène publique, 1886.—Saury, Étude clinique sur la folie héréditaire, 1886.—Brouardel, Gaz. des hôpitaux, 1886 and 1887.—Tilier, L'instinct sexuel chez l'homme et chez les animaux, 1889.—Carlier, Les deux prostitutions, 1887.—Lacassagne, art. "Pédérastie," in the Diction. encyclopédique.—Vibert, art. "Pédérastie," in the Diction. méd. et de chirurgie.

3. The entire mental existence is altered to correspond with the abnormal sexual instinct (effemimation and viraginity).

4. The form of the body approaches that which corresponds to the abnormal sexual instinct. However, actual transitions to hermaphrodites never occur, but, on the contrary, completely differentiated genitals; so that, just as in all pathological perversions of the sexual life, the cause must be sought in the brain (androgyny and gynandry).

The first definite communications¹ concerning this enigmatical phenomenon of Nature are made by Caspar ("Ueber Nothzucht und Päderastie," Caspar's *Vierteljahrsschrift*, 1852, i), who, it is true, classes it with pederasty, but makes the pertinent remark that this anomaly is, in most cases, congenital, and, at the same time, to be regarded as a mental hermaphroditism. There exists here an actual disgust of sexual contact with women, while the imagination is filled with beautiful young men, and with statues and pictures of them. It did not escape Casper that in such cases emissio penis in anum (pederasty) is not the rule, but that, by means of other sexual acts (mutual onanism), sexual satisfaction is sought and obtained.

In his "Clinical Novels" (1863, p. 33) Casper gives the interesting confession of a man showing this perversion of the sexual instinct, and does not hesitate to assert that, aside from vicious imagination and vice, as a result of over-indulgence in normal sexual intercourse, there are numerous cases in which pederasty has its origin in a remarkable, obscure impulse, which is congenital and inexplicable. About the middle of the "sixties," a certain assessor, Ulrichs, himself subject to this perverse instinct, came out and declared, in numerous articles,² that the sexual

¹ Dr. Moll, of Berlin, called my attention to the fact that in Moritz's Magazin f. Erfahrungseelenkunde, vol. viii, Berlin, 1791, there are references to contrary sexual instinct in man. In fact, there two biographies of men are reported who manifested an enthusiastic love for persons of their own sex. In the second case, which is particularly noteworthy, the patient himself explains his aberration by the fact that, as a child, he was caressed only by grown persons, and, as a boy of ten or twelve years, only by his school-fellows. "This, and the want of association with persons of the opposite sex, in me, caused the natural inclination toward the female sex to be entirely diverted to the male sex. I am still quite indifferent to women."

It cannot be determined whether such a case is one of congenital (psycho-sexual hermaphroditism?) or acquired contrary sexual instinct. The oldest case of contrary sexual instinct, that has thus far been proved in Germany, is that of a woman who was married to another, and gratified herself sexually with a leathern priapus. A case of viraginity, historically and legally interesting, derived from the legal proceedings, which took place early in the eighteenth century, is reported by Dr. Müller (Alexandersbad), in Friedrich's Blätter f. ger. Medicin, 1891, part iv.

² "Vindex, Inclusa, Vindicta, Formatrix, Ara spei, Gladius furens, kritische Pfeile," Leipzig (Otto u. Kadler), 1864-1880.

mental life was not connected with the bodily sex ; that there were male individuals that felt like women toward men ("anima muliebris in corpore virili inclusa"). He called these people "*urnings*," and demanded nothing less than the legal and social recognition of this sexual love of the urnings as congenital and, therefore, as right ; and the permission of marriage among them. Ulrichs failed, however, to prove that this certainly congenital and paradoxical sexual feeling was physiological, and not pathological.

Griesinger (*Archiv f. Psychiatrie*, i, p. 651) threw the first ray of light on these facts, anthropologically and clinically, by pointing out the marked hereditary taint of the individual, in a case which came under his own observation.

We have Westphal (*Archiv f. Psychiatrie*, ii, p. 73) to thank for the first systematic consideration of the manifestation in question, which he defined as "congenital reversal of the sexual feeling, with consciousness of the abnormality of the manifestation," and designated with the name, since generally accepted, of *contrary sexual instinct*. At the same time, he began a series of cases,¹ which, up to this time, has reached ninety-three, those reported in this monograph not being included.

Westphal leaves it undecided as to whether contrary sexual feeling is a symptom of a neuropathic or of a psychopathic condition, or whether

¹ In male individuals : (1) Casper, Klin. Novellen, p. 36 (Lehrb. d. ger. Med., 7 Aufl., p. 176); (2) Westphal, Archiv f. Psych., II. p. 73; (3) Schminke, *id.*, III, p. 225; (4) Scholz, Vierteljahrsschr. f. ger. Med., xix; (5) Gock, Arch. f. Psych., v., p. 564; (6) Servaes, *id.*, vi, p. 484; (7) Westphal, *id.*, vi, 620; (8, 9, 10) Stark, Zeitsch. f. Psychiatrie, Bd. 31; (11) Liman (Casper's Lehrb. der ger. Med., 6 Aufl., p. 509), p. 291; (12) Legrand du Saulle, Annal. méd.-psychol., 1876, May; (13) Sterz, Jahrb. f. Psychiatrie, III, Heft 3; (14) Krueg, Brau, 1884, Oct.; (15) Charcot et Magnan, Arch. de neurolog., 1882, Nr. 9; (16, 17, 18) Kirn, Zeitschr. f. Psych., Bd. 39, p. 216; (19) Rabow, Erlenmeyer's Centralbl., 1883, Nr. 8; (20) Blumer, Americ. Journ. of Insanity, 1882, July; (21) Savage, Journal of Mental Science, 1884, October; (22) Scholz, Vierteljahrsschr. f. ger. Med., N. F. Bd. 43, Heft. 7; (23) Magnan, Ann. méd. psychol., 1885, p. 461; (24) Chevalier, De l'inversion de l'instinct sexuel, Paris, 1885, p. 129; (25) Morselli, La Riforma medica, iv, March; (26) Leonpacher, Friedrich's Blätter, 1888, H. 4; (27) Holländer, Allg. Wiener Med. Zeitg., 1882; (28) Kreise, Erlenmeyer's Centralblatt, 1888, Nr. 19; (29, 30, 31, 32) v. Krafft, Psychopathia sexualis, 3 Aufl., Beob. 32, 36, 42, 43; (33) Golenko, Russ. Archiv f. Psychiatrie, Bd. ix, H. 3 (v. Rothe, Zeitschr. f. Psychiatrie); (34) v. Krafft, Internationales Centralblatt f. d. Physiol. u. Pathologie der Harn-u. Sexualorgane, Bd. 1, H. 1; (35) Cantarano, La Psichiatria, 1887, v., p. 195; (36) Sérieux, Recherches cliniques sur les anomalies de l'instinct sexuel, Paris, 1888, obs. 13; (37-42) Kiernan, The Medical Standard, 1888, 7 cases; (43-46) Rabow, Zeitschr. f. klin. Medicin, Bd. xvii, Suppl.; (47-51) v. Krafft, Neue Forschungen, Beob. 1, 3, 4, 5, 8; (52-61) v. Krafft, Psychopath. Sexualis, 5 Aufl., Beob. 53, 61, 64, 66, 73, 75, 78, 84, 85, 87; (62-65) v. Krafft, Neue Forschungen, 2 Aufl., Beob. 3, 4, 5, 6; (66, 67) Hammond, Sexual Impotence; (68-71) Garnier, Anomalies sexuelles, 1889, Obs. 227, 228, 229, 230; (72) Müller, Friedrich's Blätter, 1891; (73-87) v. Krafft, Psychopathia Sexualis, 6 Aufl., Beob. 78, 81, 82, 84, 85, 86, 87, 89, 93, 94, 96, 97, 98, 101, 102.

In female individuals : (1) Westphal, Arch. f. Psych., II. p. 73; Gock, *op. cit.*, Nr. 1; (3) Wise, The Alienist and Neurologist, 1883, January; (4) Cantarano, La Psichiatria, 1883, p. 201; (5) Sérieux, *op. cit.*, obs. 14; (6) Kiernan, *op. cit.*

it may occur as an isolated manifestation. He holds fast to the opinion that the condition is congenital.

From the cases published up to 1877, I have designated this peculiar sexual feeling as a functional sign of degeneration, and as a partial manifestation of a neuro-psychopathic state, in most cases hereditary,—a supposition which has found renewed confirmation in a consideration of additional cases. The following peculiarities may be given as the signs of this neuro-psychopathic taint:—

1. The sexual life of individuals thus organized manifests itself, as a rule, abnormally early, and thereafter with abnormal power. Not infrequently still other perverse manifestations are presented besides the abnormal method of sexual satisfaction, which in itself is conditioned by the peculiar sexual feeling.

2. The psychical love manifest in these men is, for the most part, exaggerated and exalted in the same way as their sexual instinct is manifested in consciousness, with a strange and even compelling force.

3. By the side of the functional signs of degeneration attending contrary sexual feeling are found other functional, and in many cases anatomical, evidences of degeneration.

4. Neuroses (hysteria, neurasthenia, epileptoid states, etc.) co-exist. Almost always the existence of temporary or lasting neurasthenia may be proved. As a rule, this is constitutional, having its root in congenital conditions. It is awakened and maintained by masturbation or enforced abstinence.

In male individuals, owing to these practices or to congenital disposition, there is finally neurasthenia sexualis, which manifests itself essentially in irritable weakness of the ejaculation centre. Thus it is explained that, in most of the cases, simply embracing and kissing, or even only the sight of the loved person, induce the act of ejaculation. Frequently this is accompanied by an abnormally powerful feeling of lustful pleasure, which may be so intense as to suggest a feeling of magnetic currents passing through the body.

5. In the majority of cases, psychical anomalies (brilliant endowment in art, especially music, poetry, etc., by the side of

bad intellectual powers or original eccentricity) are present, which may even go so far as pronounced conditions of mental degeneration (dementia, moral insanity).

In many urning, either temporarily or permanently, insanity of a degenerative character (pathological emotional states, periodical insanity, paranoia, etc.) makes its appearance.

6. In almost all cases where an examination of the physical (and mental peculiarities of the ancestors and blood-relations has been possible, neuroses, psychoses, degenerative signs, etc., have been found in the families.¹

Gley
The depth of congenital contrary feeling is shown by the fact that the lustful dream of the male-loving urning has for its content only male individuals; that of the female-loving woman, only female individuals, with corresponding situations.

The observation of Westphal, that the consciousness of one congenitally defective in sexual desires toward the opposite sex is painfully affected by the impulse toward the same sex, is true in only a number of cases. Indeed, in many instances, the consciousness of the abnormality of the condition is wanting. The majority of urning are happy in their perverse sexual feeling and impulse, and unhappy only in so far as social and legal barriers stand in the way of the satisfaction of their instinct toward their own sex.

The study of contrary sexual feeling points directly to anomalies of the cerebral organization of the affected individuals. Gley (*Revue philosoph.*, January, 1884) believes that he is able to solve the riddle by the theory that the individuals have a female brain and male sexual glands; and, further, that pathological brain conditions determine the sexual life, while normally the sexual organs determine the sexual functions of the brain.

One of my patients offered me an interesting theory in

¹ Tarnowsky (*op. cit.*, p. 34) records a case which shows that contrary sexual feeling, as a concomitant manifestation with neurotic degeneration, may also affect the descendants of parents having no neurotic taint. In this instance, lues of the parents played a part, as in a similar case of Scholz (*Vierteljahrsschr. f. ger. Med.*), in which the perversion of the sexual desires stood in causal relation with an arrest of psychical development, caused by traumatism.

explanation of original contrary sexual instinct. He started with the actual bi-sexuality shown by the foetus anatomically up to a certain age. While normally the organs which attain complete development exclusively condition and determine the sexual type, and the influence of the opposite organs, which remain rudimentary, is *nil*, it is conceivable that, under the influence of a factor inimical to the normal development of the brain (hereditary taint, etc.), these rudimentary organs likewise exercise an influence which, under certain circumstances, may be even greater than that of the fully developed organs which determine the external sexual type.

In a similar manner, Kiernan (*Medical Standard*, 1888) and G. Frank Lydston (*Phila. Med. and Surg. Reporter*, 1888) attempt to explain a part of the cases of congenital sexual paranoia. Magnan, too (*Ann. méd. psychol.*, 1885, p. 458), writes, in all earnestness, of the brain of a woman in the body of a man, and *vice versa*.¹

The attempted explanations of congenital urnings are not less superficial; for instance, that of Ulrichs, who, in his "Memnon," 1868, speaks of an "anima muliebris virili corpore inclusa (virili corpori innata)," and thus tries to explain the congenital origin and the female character of his abnormal sexual instinct. The idea of the patient, the subject of Case 124, is original. He supposes that when his father begat him he thought to beget a girl, but, instead of a girl, a boy resulted. One of the strangest explanations of congenital contrary sexual feeling is made by Mantegazza (*op. cit.*, p. 106, 1886).

According to this author, in such individuals there exist anatomical anomalies which, by an error of Nature, consist in a distribution to the rectum of the nerves intended for the genitals; so that only in this situation the lustful sensation is aroused which otherwise results from stimulation of the genitals. But how does this author, in other ways so acute, explain the great majority of cases, where pederasty is abhorred by those affected with contrary sexual feeling? Besides, Nature

¹ This supposition is overthrown by the result of the post-mortem of my case (118), where the brain-weight was 1150 grammes, and of Case 130, where it was 1175 grammes.

never makes such leaps. Mantegazza rests his hypothesis upon the statements of an acquaintance, a celebrated writer, who assured him that he was not sure that he took a greater pleasure in coitus than in defecation! Allowing the correctness of his experience, still it would only prove that the man was sexually abnormal, and that his pleasure in coitus was reduced to a minimum.

An explanation of congenital contrary sexual feeling may perhaps be found in the fact that it represents a peculiarity bred in descendants, but arising in ancestry. The hereditary factor might be an *acquired* abnormal inclination for the same sex in the ancestors (*v. infra*), found fixed as a congenital abnormal manifestation in the descendants. Since, according to experience, acquired physical and mental peculiarities, not simply improvements, but essentially defects, are transmitted, this hypothesis becomes tenable. Since individuals affected with contrary sexual feeling not infrequently beget children,—at least, they are not absolutely impotent (women never are),—a transmission to descendants is possible.

This supposition is decidedly favored by Case 124, in which the eight-year-old daughter of an individual affected with contrary sexual feeling, practiced mutual masturbation—a sexual act—at an age which permits the presumption of contrary sexual feeling. No less significant is the communication made to me by a young man of twenty-six, who belongs to the third group of contrary sexuality. He knew with certainty that his father, who had died some years before, was also subject to contrary sexuality. An informant assured me, at least, that he knew many other men with whom his father had sustained “relations.” Whether, in the case of the father, it was an acquired or a congenital contrary sexual instinct, and to what group he belonged, could not be ascertained.

The foregoing hypothesis seems the more plausible, when it is considered that the first three degrees of congenital contrary sexual instinct correspond exactly with the developmental stages which are discoverable in the development of the acquired anomaly. One, therefore, feels inclined to designate

the various degrees of congenital contrary sexual instinct as various degrees of an hereditarily-induced sexual anomaly, acquired from the progenitors or otherwise developed. Here, too, the law of progressive heredity must be taken into consideration.

The sexual acts, by means of which male urnings seek and find satisfaction, are multifarious. There are individuals, of fine feeling and strength of will, who sometimes satisfy themselves with platonic love, with the risk, however, of becoming nervous (neurasthenic) and insane, as a result of this enforced abstinence. In other instances, for the same reasons which may lead normal individuals to avoid coitus, onanism, *faut de mieux*, is indulged in.

In urnings with nervous systems congenitally irritable, or injured by onanism (irritable weakness of the ejaculation centre), simple embraces or caresses, with or without contact of the genitals, are sufficient to induce ejaculation and consequent satisfaction. In less irritable individuals, the sexual act consists of manustupration by the loved person, or mutual onanism, or imitation of coitus between the thighs. In urnings morally perverse and potent, quoad erectionem, the sexual desire is satisfied by pederasty,—an act, however, which is repugnant to perverted individuals that are not defective morally much in the same way as it is to normal men. The statement of urnings is remarkable, that the sexual act with persons of the same sex, which is adequate for them, gives them a feeling of great satisfaction and accession of strength, while satisfaction by solitary onanism, or by enforced coitus with a woman, affects them in an unfavorable way, making them miserable and increasing their neurasthenic symptoms. The manner of satisfaction of the female urning is little known. In one of my cases, the girl masturbated, and during the act felt herself to be a man; and her fancy created a beloved female person. In another case, the act consisted of practicing onanism on the person loved, and fondling her genitals.

Amor lesbicus is presumably not infrequent here, for which an enlarged clitoris or an artificial priapus may be used.

As to the frequency¹ of the occurrence of the anomaly, it is difficult to reach a just conclusion, since those affected with it break from their reserve only very infrequently; and in criminal cases the urning with perversion of sexual instinct is usually classed with the person given to pederasty for simply vicious reasons. According to Casper's and Tardieu's, as well as my own, experience, this anomaly is much more frequent than reported cases would lead us to presume.

Viciss. ✓

Ulrichs ("Kritische Pfeile," p. 2, 1880) declares that, on an average, there is one person affected with contrary sexual instinct to every two hundred mature men, or to every eight hundred of the population; and that the percentage among the Magyars and South Slavs is still greater,—statements which may be regarded as untrustworthy. The subject of one of my cases knows personally, at his home (13,000 inhabitants), fourteen urnings. He further declares that he is acquainted with at least eighty in a city of 60,000 inhabitants. It is to be presumed that this man, otherwise worthy of belief, makes no distinction between the congenital and the acquired anomaly.

1. *Psychical Hermaphroditism.*²—The characteristic mark of this degree of inversion of the sexual instinct is that, by the side of the pronounced sexual instinct and desire for the same sex, a desire toward the opposite sex is present; but the latter is much weaker and is manifested episodically only, while the homo-sexuality is primary, and, in time and intensity, forms the most striking feature of the *vita sexualis*.

¹ That inversion of the sexual instinct is not infrequent is proved, among other things, by the circumstance that it is frequently a subject in novels. Chevalier (*op. cit.*) points out in French literature, besides the novels of Balzac, like "La Passion au Desert" (treating of bestiality) and "Sarrazine" (treating of the love of a woman for a eunuch), Diderot's "La Religieuse" (a story of one given to *amor leamicus*); Balzac's "La Fille aux Yeux d'Or" (*amor leamicus*); Th. Gautier's "Mademoiselle de Maupin"; Feydeau's "La Comtesse de Chalis"; Flaubert's "Salammbô," etc. Belot's "Mademoiselle Giraud, Ma Femme" may also be mentioned (now translated into English). It is interesting that the heroines of these (Lesbian) novels appear in the character and rôle of the husband of a lover of the same sex, and that their love is extremely passionate. Moreover, the neuropathic foundation of this sexual perversion does not escape the writers. This theme is treated, in German literature, in "Fridolin's heimliche Ehe," by Wilbrand; in "Brick und Brack oder Licht in Schatten," by Emerich Graf Stadion. The oldest urning's romance is probably that published by Petronius at Rome, under the Empire, under the title *Satyricon*.

² Comp. author's work, "Ueber psychosexuales Zwitterthum," in the *internationalen Centralblatt f. d. Physiologie u. Pathologie der Harn und Sexualorgane*, Bd. 1, Heft 2.

The hetero-sexual instinct may be but rudimentary, manifesting itself simply in unconscious (dream) life; or (episodically, at least) it may be powerfully exhibited.

The sexual instinct toward the opposite sex may be strengthened by the exercise of will and self-control; by moral treatment, and possibly by hypnotic suggestion; by improvement of the constitution and the removal of neuroses (neurasthenia); but especially by abstinence from masturbation. However, there is always the danger that homo-sexual feelings, in that they are the most powerful, may become permanent, and lead to enduring and exclusive contrary sexual instinct. This is especially to be feared as a result of the influences of masturbation (just as in acquired inversion of the sexual instinct) and its neurasthenia and consequent exacerbations; and, further, it is to be found as a consequence of unfavorable experiences in sexual intercourse with persons of the opposite sex (defective feeling of pleasure in coitus, failure in coitus on account of weakness of erection and premature ejaculation, infection). On the other hand, it is possible that æsthetic and ethical sympathy with persons of the opposite sex may favor the development of hetero-sexual desires. Thus it happens that the individual, according to the predominance of favorable or unfavorable influences, experiences now hetero-sexual, now homo-sexual, feeling.

how to
cure it

It seems to me probable that such hermaphrodites from constitutional taint are not infrequent.¹ Since they attract very little attention socially, and since such secrets of married life are only exceptionally brought to the knowledge of the physician, it is at once apparent why this interesting and practically important transitional group to the group of absolute contrary sexuality, has thus far escaped scientific investigation. Many cases of frigiditas uxorius and mariti may possibly depend upon this anomaly. Sexual intercourse with the opposite sex is, in itself, possible. At any rate, in cases of this degree, no horror sexus alterius exists. Here is a fertile field for the application

¹ This idea is supported by the statements of an unmarried young which Dr. Moll, of Berlin, kindly communicated to me. He could report a number of cases of his acquaintance, in which married men at the same time had "relations" with men.

of medical and moral therapeutics (*v. infra*). The differential diagnosis from acquired contrary sexual instinct may present difficulties; for in such cases, as long as the vestiges of a normal sexual instinct are not absolutely lost, the actual symptoms are the same (*v. infra*). In the first degree, the sexual satisfaction of homo-sexual impulses consists in passive and mutual onanism and coitus inter femora.

Case 106. *Psychical Hermaphroditism in a Lady.*—Mrs. M., aged 44, exemplifies the fact that an inverted and a normal sexual instinct may be united in one person, be it in man or woman. The father of this lady was very musical, and very talented as an artist. He took life easily; and to his extraordinary beauty was added a great admiration for the opposite sex. After several apoplectic attacks, he died demented in an asylum. Father's brother was neuro-psychopathic, and when a child was a somnambulist; and all his life he was afflicted with hyperæsthesia sexualis. Thus, although married and the father of married sons, he tried to seduce his niece, Mrs. M., with whom he was wildly in love, when she was eighteen years old. Father's father was very eccentric and a distinguished actor. He first studied theology, but, as a result of partiality for the dramatic muse, he became an actor and singer. He committed excesses in baccho et venere; was a spendthrift and luxurious. He died at forty-nine, of apoplexia cerebri. Mother's father and mother died of tuberculosis of the lungs.

Mrs. M. was one of eleven children, of whom six are still living. Two brothers, who resembled the mother physically, died, at sixteen and twenty, of tuberculosis. A brother suffers with laryngeal phthisis. Four living sisters and Mrs. M. resemble the father physically, and the eldest is unmarried, very nervous, and shy of people. Two younger sisters are married, healthy, and have healthy children. The other is unmarried, and suffers with nervous complaints. Mrs. M. has four children, several of whom are delicate and neuropathic.

The patient can tell nothing of importance concerning her childhood. She learned easily, and was aesthetically and poetically inclined. She was considered a little high-strung, and too much given to novel-reading and sentimentality. Her constitution was neuropathic, and she was extremely sensitive to changes of temperature, sometimes having annoying cutis auserina as a result of slight draughts. It is remarkable that one day, when she was about ten years old, she thought that her mother no longer loved her; and she put matches in her coffee to make herself really sick, that she might thus excite her mother's love for her.

Puberty began, without difficulty, at the age of eleven. Thereafter the menses were regular. Before the time of puberty sexuality mani-

fested itself, and, according to the opinion of the patient, its promptings have been abnormally intense all her life. The first feelings and impulses were decidedly inverted. She conceived a passionate but platonic love for a young lady. She wrote verses and sonnets to her, and was perfectly happy if she could admire "the entrancing charms" of her goddess in the bath, or steal a glimpse of her neck, shoulders, and breast while she was dressing. The wild impulse to touch these physical charms was always overcome. While a young girl, she had actually been in love with Madonnas of Raphael and Guido Reni. In all kinds of weather she would run after pretty girls and ladies for hours at a time, admiring their beauty, losing no opportunity to please them, offering them bouquets, etc. The patient asserted that, until the age of nineteen, she was absolutely without a suspicion of a difference of sex; because she had been educated as in a cloister by a very prudish aunt, who was an old maid. As a result of this great ignorance, the patient became the victim of a man who was passionately in love with her, and who had coitus with her by means of stratagem. She became the wife of this man, bore one child, and lived an "eccentric" sexual life with him. She felt perfectly satisfied with married intercourse. After a few years she became a widow. Since then, women have again been the object of her love, primarily, as the patient thinks, from fear of the results of sexual intercourse with a man.

At twenty-seven, second marriage, without love, to a phthisical husband. Patient was three times confined, and fulfilled her maternal duties. Her physical health failed, and in the later years of this married life she had an increasing aversion for her husband, partly due to a sense of his disease, though, at the same time, there was constantly present an intense desire for sexual indulgence.

Three years after the death of her second husband, the patient discovered the fact that her nine-year-old daughter, by her first husband, was given to masturbation, and that she was failing in physical health. The patient read of this vice, and could not overcome the impulse to indulge in the practice, becoming, in consequence, an onanist. She is unable to bring herself to give the details of this period of her life. She says that she was frightfully excited sexually, and had to send her daughters from home to save them from terrible consequences; but the two boys she was able to keep at home.

Patient became neurasthenic ex masturbatione (spinal irritation, feeling of pressure in head, weariness, lack of mental control), and, at times, had dysthymia and painful tedium vitæ. Her sexual feeling would be directed at one time to women, at another to men. She was able to restrain herself, and suffered much from abstinence, especially because, on account of her neurasthenic troubles, she sought to obtain relief in masturbation, though only in case of great necessity. At the present time, though forty-four years old, and menstruating regularly,

she suffers intensely with a passion for a young man whose presence she cannot avoid on account of the exigencies of occupation.

Patient presents nothing remarkable in external appearance. She is gracefully formed, but the muscular system is not strongly developed. Pelvis is, in all respects, that of a female, but the arms and legs are decidedly large and of masculine form. Ladies' shoes do not fit her, but, being opposed to exciting attention, she forces her feet into female shoes, and they are, therefore, much deformed. Genitals normally developed, and present no other abnormality than descent of the uterus, with hypertrophy of the vaginal portion. On thorough examination it is seen that the patient is essentially homo-sexual, and that the desire for the opposite sex is but episodical and sensual. Thus, at present, she suffers intensely with sexual desires for every man with whom she comes in contact, but it is a more refined and higher pleasure for her to imprint a kiss on the soft, round cheek of a maiden. This pleasure is one she often enjoys, because she is much beloved as the "dear aunt" by all the "sweet creatures"; for she voluntarily does them the most various chivalrous favors, always feeling herself at such times as a man.

Case 107. Contrary Sexual Instinct with Sexual Satisfaction in Hetero-Sexual Intercourse.—Mr. Z., aged 36, Hollander, consulted me, in 1888, on account of an anomaly of his sexual feelings, which had become a matter of anxiety to him in connection with an intended marriage. Patient's father was neuropathic, and suffered with nightmare and night-terrors. Grandfather was mentally unsound; father's brother an idiot. Patient's mother and her family were healthy and normal mentally. The patient had four sisters and one brother, the latter being subject to moral insanity. Three sisters are healthy, and living happy married lives.

As a child, the patient was weak, nervous, and subject to night-terrors, like his father; but he never had any severe sickness except coxitis, as a result of which he limps slightly. Sexual impulses were manifested early. At eight, without any teaching, he began to masturbate. From his fourteenth year, ejaculation. He was mentally well endowed, and his principal interest was in art and literature. He was always weak muscularly, and had no inclination for boyish sports and later for manly occupations. He had a certain interest for female *toilettes*, ornaments, and occupations. From the time of puberty the patient noticed in himself an inexplicable inclination toward male persons. Youths of the lowest classes were especially attractive to him. Cavalrymen especially excited his interest. He experienced a lustful desire to press himself against such individuals from behind. Occasionally, in crowds, it was possible for him to do this; and in such an event an intense feeling of pleasure passed over him. After his twenty-second year, on such occasions, he now and then had an ejaculation. From that time ejaculation occurred when a sympathetic man laid his hand on the patient's thigh. He was now in great anxiety lest he might sometime assault a man sexually.

People of the lower classes, wearing tight, brown trousers, were especially dangerous for him. His greatest pleasure would be: to embrace such a man and press himself on him; but, unfortunately, the morality of his country did not allow such a thing. Pederasty seemed disgusting to him.

It gave him great pleasure to gain a sight of the genitals of males. He was always compelled to look at the genitals of every man he met. In circuses, theatres, etc., only male performers interested him. Patient has never noticed any inclination for women. He does not avoid them, even dances with them on occasion, but he never feels the slightest sensual excitation under such circumstances.

At the age of twenty-eight the patient was neurasthenic as a result of his excessive masturbation.

Then frequent pollutions in sleep occurred, which weakened him very much. It was only occasionally that he dreamed of men when he had pollutions; and never of women. A lascivious dream-picture (pederasty) had occurred but once. He dreamed of dying-scenes, of being attacked by dogs, etc. After these, as before, he suffered with great libido sexualis. Often there came up before him such lascivious thoughts as gloating over the death of animals in the slaughter-house, or allowing himself to be whipped by boys; but he always overcame such desires, and also the impulse to dress in a military uniform.

In order to cure himself of masturbation, and to thoroughly satisfy his libido, he determined to frequent brothels. He first attempted sexual intercourse with a woman when twenty-one, after over-indulgence in wine. The beauty of the female form, and female nudity in general, made no impression on him. However, he was able to enjoy the act of coitus, and thereafter he visited brothels regularly for "purposes of health."

From this time he took great pleasure in hearing men tell stories of their sexual relations with the opposite sex.

Ideas of flagellation would also come to him while in a brothel, but the retention of such fancies was not essential for the performance of coitus. He considered sexual intercourse with prostitutes only a remedy against the desire for masturbation and men,—a kind of safety-valve to prevent compromising himself with some man.]

The patient now wishes to marry, but fears not only that he could have no love for a decent woman, but also that he might be impotent for intercourse with one. Hence his thought and need of medical advice.

The patient is very intelligent, and is, in all respects, of masculine appearance. In dress and manner he presents nothing that would attract attention. Gait, voice, and skeleton,—the pelvis especially,—masculine in character. Genitals of normal development. The normal growth of hair for a male is abundant. The patient's relatives and friends have not the slightest suspicion of his sexual anomalies. In his inverted sexual fancies, he has never felt himself in the rôle of a woman toward a man. For some years he has been entirely free from neurasthenic troubles.

The question as to whether he considered himself a subject of congenital inversion of sexual instinct he could not answer. It seems probable that there was a congenital weak inclination for the opposite sex, with a greater one for the same sex, which, as a result of early masturbation in consequence of the homo-sexual instinct, was still more weakened, but not reduced to *nil*. With the cessation of masturbation, the feeling for women became in a measure more natural, but only in a coarsely sensual way.

Since the patient explained that, for reasons of family and business, it was necessary for him to marry, it was impossible to avoid this delicate question.

Fortunately, the patient limited his inquiries to the question as to his virility as a husband; and it was necessary to reply that he was virile, and that he would probably be so in conjugal intercourse with the wife of his choice,—at least, if she were to be in mental sympathy with him; besides, that he could at all times improve his power by exercising his imagination in the right direction.

The main thing was to strengthen the sexual inclination for the opposite sex, which was defective, but not absolutely wanting. This could be done by avoiding and opposing all homo-sexual feelings and impulses, possibly with the help of the artificial inhibitory influences of hypnotic suggestion (removal of homo-sexual desires by suggestion); by the excitation and exercise of normal sexual desires and impulses; by complete abstinence from masturbation, and eradication of the remnants of the neurasthenic condition of the nervous system by means of hydrotherapy, and possibly general faradization.

I am indebted to a physician, aged thirty, for the following autobiography, which in another respect is noteworthy:—

Case 108. Mental Hermaphroditism; Abortive Contrary Sexual Instinct.—"In my ancestry I am somewhat predisposed hereditarily. My grandfather on my father's side was a high-liver and a speculator. My father was a man of character, but for more than thirty years he has suffered with folie circulaire, without, however, being much hindered by it in business. My mother, like her father before her, suffers with stenocardiac attacks. My mother's father and brother are said to have been sexually hyperæsthetic. My only sister, about nine years older than myself, was twice subject to attacks of eclampsia, and during puberty was religiously exalted, and probably also sexually hyperæsthetic. During many years she had to suffer with a severe hysterical neurosis, but she is now completely well.

"As an only son, and born late, I was the apple of my mother's eye; and I have her indefatigable care to thank that I survived childhood, after having passed through all the possible diseases of children (hydro-

cephalus, measles, croup, small-pox, and, at thirteen, chronic intestinal catarrh that lasted a year). My mother, being herself very religious, raised me, without spoiling me, in a religious way, and implanted in me, as the guiding moral principle, an unyielding devotion to duty, which was further carried to an extreme in me by a teacher whom I still call a friend. Owing to my delicate health, my childhood, in greater part, was spent in bed; and I was thus given to quiet occupations, especially reading; and thus as a boy I came to be—if not *blasé*—premature at least. As early as eight or nine the parts of books that excited me most were those where injuries or operations that had to be endured by beautiful girls or ladies, were described. Thus I was thrown into great excitement by a story in which was pictured a maiden that had run a thorn into her foot, with a boy taking it out for her. Indeed, every time that I looked upon this picture, which was in nowise lascivious, I had an erection. Whenever possible, I went to see chickens killed; and if I had missed that, I looked at the spots of blood, and stroked the warm bodies of the birds, with pleasurable shudders. I would emphasize the fact that I have always been a great lover of animals, and have felt disgust and pity while killing larger animals, and even in the vivisection of frogs.

“The killing of chickens is still a great sexual stimulus for me, and especially holding them, during which I have palpitation of the heart and precordial oppression. It is of interest that my father had a passion for binding together the hands of girls and young women.

“I think that another of my sexual abnormalities is attributable to this strain of cruelty. As I shall clearly describe later, one of my favorite games was that of an improvised doll-theatre, where I prescribed the parts of my companions. Almost always it was a young girl who, at the command of her papa, whom I represented, had to have a painful operation done on her foot. The more the girl cried, the more satisfaction I had. How I came to hit upon the foot as the constant object of operation will be seen from the following: When a very young boy, I happened to see my eldest sister change her stockings. When she hastily hid her feet, my attention was attracted, and immediately the sight of her bare feet to the ankles came to be the ideal of my longing. Naturally, this made my sister very careful; and thus there was occasioned a constant quarrel, which, on my part, was kept up with all the wiles of cunning and flattery, and with even explosions of anger, until my seventeenth year. In other respects my sister was very indifferent. Indeed, her kiss is repugnant to me. *Faute de mieux*, I made use of the feet of servants; masculine feet had no effect on me. My greatest desire would have been to cut the nails, or, *sit venia verbo*, the corns, on the beautiful foot of a woman. My lustful dreams were concerned with these things. Indeed, I applied myself to the study of medicine really in the expectation of gaining an opportunity to satisfy my desires, or cure them.

Thank God, I attained the latter. After undertaking the first dissection of the lower extremity of a female, this unhappy desire was removed from me. I was unhappy because I was always deeply ashamed of this impulse. I think I may spare further details concerning it, since this peculiar enthusiasm, which even inspired me to write verses, has been sufficiently described by others.

"Now, concerning the last phase of my sexual errors: I was about thirteen, and had just begun to mature, when a school-mate, who happened to be our guest, teased me one night by kicking me with his bare feet under the covers. I seized his foot, and immediately became greatly excited, and had a pollution after it,—the first that I had. The boy was peculiarly girlish in form, and was also mentally effeminate. Too, another comrade who had very small and delicate hands and feet, whom I once saw in a bath, caused unusual excitement in me. I thought it a great piece of good fortune to be in bed with either of these, though any nearer sexual intercourse than embracing them never came into my mind. Moreover, I always thrust such thoughts aside with aversion. Some years later, when about sixteen or eighteen, I made the acquaintance of two other boys that awakened my sexual feeling. When I played with either of these, I immediately had an erection. Both were very energetic and lively, but delicately formed and child-like. At the occurrence of puberty I lost interest in both of them, though a warm friendship was preserved. I should never have allowed myself to have indulged in vicious practices with them.

"When I went to the University, I forgot completely these errors of my libido sexualis, and from principle I kept from sexual intercourse until I was twenty-four, in spite of the contempt of my companions. When pollutions became too frequent, and I began to fear cerebral neurasthenia ex abstinentia, I gave myself up to normal sexual indulgence, though somewhat mechanically; and it was, of course, very beneficial to me.

"The especial field of work to which I have devoted myself is responsible for the fact that I am almost impotent with puellis publicis, and also for the fact that the naked form of a woman disgusts rather than excites me. The act always satisfies me the most, if, during it, I can keep the vision of the face before me; but since, on the other hand, the idea that the girl near me is enjoyed by another is unbearable, for years I have found it absolutely necessary for my mental comfort, in spite of the pecuniary sacrifice, to keep a mistress, and, indeed, a virgin. Otherwise the most terrible jealousy made me absolutely incapable of work. I must also mention that, at thirteen, I fell in love platonically for the first time; and since then I have often pined in chaste love. What distinguishes my case from all others is the fact that I have never once masturbated in my life.

"Some weeks ago, in sleep, I was frightened by a dream of a naked

boy, from which I awoke with an erection. In conclusion, I venture to undertake the difficult task of describing my present condition : Medium height, gracefully formed. Skull dolichocephalic, with prominence in the occipital region ; circumference, 59 centimetres ; frontal prominence marked ; glance somewhat neuropathic ; pupils medium ; teeth very defective ; musculature strong and tense ; abundant hair, blonde. Varicocele on the left side ; frenulum too short, which hindered me in coitus. I severed it myself three years ago. Since then ejaculation is retarded, and pleasurable feeling much diminished. Temperament choleric. Quick of comprehension ; good at drawing conclusions ; energetic ; for one hereditarily predisposed, very persevering. I learn languages easily, and have a good ear for music, but otherwise I have no talent for the arts. I am always ambitious to do my duty, but I am constantly troubled with tedium vitæ, and only kept from attempts at suicide by my religion and the thought of my mother. Otherwise I am a typical candidate for suicide. I am ambitious, jealous, have a fear of paralysis ; left-handed. I am filled with socialistic ideas. I like adventures, and I am courageous. I have decided never to marry."

Case 109. *Psychical Hermaphroditism. Autobiography.*—"I was born in 1868. The families of both my parents are healthy ; at any rate, mental disease has never occurred in them. My father was a merchant ; he is now sixty-five years old, and for years has been nervous and especially inclined to be melancholic. Before his marriage, my father is said to have lived fast. My mother is healthy, though not very strong. There are two other healthy children.

"I was very early developed sexually, and in my fourteenth year was so much troubled by pollutions that I was frightened. Under what circumstances they occurred, particularly the nature of the dreams that were connected with them, I am no longer able to state. The fact is, that for years I have only felt myself drawn toward men sexually ; and, with every effort and a terrible struggle, I am still unable to overcome this unnatural impulse that is so repugnant to me. It is said that I had many severe illnesses in my childhood, and that my life was often despaired of. To this was probably due the fact that I was spoiled and made very delicate. I was always much in the house, preferred to play with dolls rather than with soldiers, and I liked to play quietly in the house better than to play noisily in the streets. I entered the Gymnasium at the age of ten. Though I was lazy, I was among the best scholars ; for I learned very easily, and was the favorite of my teacher. From my earliest childhood (seventh year), I took pleasure in little girls. I remember that, even until my thirteenth year, I had formal love-affairs with them, and was jealous of those who associated with them ; that I took pleasure in looking under the petticoats of my sister's friends and the servants ; and that I had erections when touching the persons of my female playmates. I can, however, recall with certainty that boys

attracted and excited me sexually just as early and powerfully. I always took great delight in reading and in the theatre. I had a doll-theatre, with which I played by preference. I knew whole pieces by heart, and copied the actors I saw, taking especially the female parts, in which I was delighted to put on female attire.

"As my sexual life became more pronounced, my inclination for boys won the upper hand. I fell completely in love with my companions, and had lustful feeling if one of them who pleased me touched my body. I became very shy, and refused to take gymnastic and swimming lessons. I thought I was different from my comrades, and did not like to undress before them. I liked to look at the penes of my companions, and easily had erections. I masturbated but once, and that in my youth. When a friend told me that one could have pleasure without women, I likewise tried it; but I found no pleasure in it. At that time, also, a book fell in my hands which warned against the effects of onanism. After that one trial I never did it again. In my fourteenth or fifteenth year, I made the acquaintance of two younger boys who excited me sexually to the highest degree. I was especially in love with one of them. I became sexually excited in his presence, and was restless when I did not have him near me. I was jealous of those who associated with him, and embarrassed in his presence. He had no suspicion of my condition. I felt very unhappy, and often wept gladly, feeling then relieved. Yet I could not understand this feeling, and always felt its irregularity. I was also especially unhappy because my ability to work disappeared all at once. I, who before had learned with ease, suddenly had difficulty; my thoughts were never on the subject. Only by straining every nerve could I get anything through my head. I always had to study aloud, in order to keep my attention on the matter in hand. My memory, which was previously excellent, often left me in the lurch. Nevertheless, I continued to be a good scholar, and I still pass for a talented man; but I have terrible difficulty in learning anything. I exerted all my energy to free myself from this sad condition. Daily I went swimming; I practiced turning, rode much, and practiced fencing, in all of which I enjoyed myself very much. I still like to be on a horse's back, though I know nothing about horses, and have no particular talent for physical exercises. I was never absent from a drinking-party, and I smoked. I was much liked. In *cafés* I associated much with waitresses, and liked to amuse myself with them, without, however, being sexually excited by them. Among my friends and teachers, I passed for a man who was much with women, and spoiled by them. Unfortunately, this was not true.

"At the age of nineteen I went to the University. My first semester was spent at the University of B., and it is still terrible to recall it. My sexual appetite powerfully excited me, and at night, for hours at a time, I ran about looking for men, especially when I was intoxicated.

The next morning I would be crazy about myself. Fortunately, I found no one. In the second semester, I went to M. This was my happiest time. I had pleasant friends, and, for a wonder, took pleasure in women, and was very happy about it. I had a love-affair with a young girl of spoiled character, with whom I spent wild nights. I was extraordinarily virile. I, who had formerly been chaste, also associated with other women, as never before. I felt fresh and well after coitus. I was not charmed so much by the female figure, which was never beautiful to me, as by—I know not what. In short, I knew women whose touch immediately induced erection. This joy and state of delight did not last long. I was so foolish as to take rooms with a friend. We had one sleeping-room. My friend was very talented and amiable, and a favorite with women; and it was by these characteristics that he at first so strongly attracted me. In fact, I love only highly-educated men; uneducated, powerful persons are able to excite me intensely only for the moment, and cannot retain my affections. I soon fell in love with my friend. Then came the terrible time that destroyed my health. I slept in the same room with my friend, and had to see him undress daily; so that it required all my strength to keep from betraying myself. I became nervous, cried easily, and was jealous of those who associated with my friend. I still associated with women; but it was only with difficulty that I could perform coitus, which, like woman, was repugnant to me. The same women who had excited me intensely, no longer had any effect on me. I followed my friend to W., where he met an earlier friend, with whom he associated. I became jealous and sick with love and longing. At the same time, I associated with women again, but seldom, and only with difficulty, indulged in coitus. I became terribly depressed and almost insane. Work was out of the question. I led a foolish, wild life, and spent a great amount of money, almost throwing it away. Then, after six weeks of it, I broke down, and had to visit a water-cure, where I spent many months. There I came to myself again, and soon became much liked; for I can be very gay, and I take great pleasure in the society of educated ladies. In conversation, I prefer married women to younger girls; I am also very gay in the society of gentlemen at the beer-table and bowling-alley.

"At this sanitarium I met a man of twenty-nine, who was apparently constituted like myself. The fellow forced himself upon me, and wanted to embrace and kiss me; but he was very repugnant to me, though he excited me, and his touch caused erection, and even ejaculation. One evening he got me to perform mutual onanism. After it I spent a most frightful, sleepless night; I was terribly disgusted with the whole affair, and thought I should never do such a thing with a man again. All day long I could get no rest. It was terrible to me that, in spite of this, and against my will, this man so excited me sexually; yet, on the other hand, it gave me satisfaction that he was in love with me, and apparently had

to go through struggles similar to my earlier ones. From that time I was successful in keeping him away from me.

"I again went to various Universities, and also visited many water-cures, with temporary, but never permanent, benefit. I fell in love, too, with many friends, but never so deeply as with the friend at M. I no longer had sexual intercourse, neither with women—I was incapable of it—nor with men; for I had no opportunity for it with the latter, and I forced myself to avoid it. I still often met my friend of M.; we are as good friends as ever, and, much to my delight, he no longer excites me. It is usually so; when for a long time I have not seen a person who excites me, the sexual influence disappears.

"I passed my examinations with distinction. During the last year before they took place,—when I was twenty-three,—I began to practice masturbation; for I could find no other way in which to gratify my burdensome sexual appetite. Still, I did it very infrequently; for after it I was always disgusted, and spent a sleepless night. But when I have drunk much, I lose all strength; and then I run about for hours, seeking men, and finally come to onanism, to awake the next day with a dull head and a horror of myself, and go about all day in a melancholy state. As long as I have control of myself, I use all my strength to combat my nature. It is terrible when one can have no pleasure in associating with friends, and every erect soldier or butcher-boy makes one tremble and throb. It is frightful when night comes, and I watch at the window for some one to urinate against a wall across the way, and give me an opportunity to see his genitals. These thoughts are terrible; and besides, there is the consciousness of the immorality and criminality of my state of mind and my longing. I have a repugnance for myself that I cannot describe. I consider my condition abnormal; I cannot think that it is congenital, but I believe that the impulse was bred in me by faulty education. My suffering makes me reckless and egotistical; it takes away all kindness of disposition, and makes me careless about my family. I am moody, and often almost insane; often I am so depressed that I know not what to do, and then am easily moved to tears. And yet I have a horror of sexual intercourse with men. One evening when I came from a drinking-party, drunk and excited and in a half-conscious state, and, full of desire, was wandering about, I met a young man, who got me to perform mutual masturbation. Though he excited me, after the act I was beside myself. To-day, when I go by the place, I am overcome with horror; and lately, when riding by it, without any cause, I fell from my gentle horse, that I know so well,—I was so overcome by the memory of my unworthy deed.

"I love family life and children, and social intercourse; and, with my position in society, I am suited to have a family. But I must give up all that; and yet, I cannot abandon hope of cure. And so I vacillate between hopeful gaiety and frightful hopelessness, and neglect business

and family. Indeed, I do not ask that I may marry and found a family; I wish only to overcome the terrible inclination for the male sex; only to associate quietly with my friends, and to learn to respect myself again.

"No one has any suspicion of my condition; I pass rather for a great *roué*,—a reputation I try to maintain. I often try to have relations with girls, for which I often have opportunity. I have known many who loved me, and who would have sacrificed their honor for me; but I have no love to offer them, and nothing sexual to give. And yet I can love a man. I am excited only by young men,—*i.e.*, aged from seventeen to twenty-five, without full beards, and preferably with no beards at all. I can love only those that are educated, respectable, and amiable. I am, in short, very proud, and quick; I am also enthusiastic, and easily led by persons who please me. These I try to imitate, but I am very sensitive with them, and easily hurt. I put much value on appearances, love beautiful furniture and dress, and assume a distinguished manner and elegant address. I am unhappy in that my neurasthenic condition keeps me from doing and learning what I should like."

Last fall I made the patient's acquaintance. He is destitute of degenerative signs; and of perfectly masculine appearance, even though he is delicately formed and slender. Genitals perfectly normal. Appearance distinguished, with nothing striking. He is much troubled about his sexual perversion, and wishes to be freed from it at any price. In spite of the greatest effort on the part of both physician and patient, only a slight degree of hypnosis, insufficient for suggestive treatment, could be induced.

Case 110. Psychical Hermaphroditism—Mouth-fetichism.—"I am thirty-one years old, and an official in a manufactory. My parents are healthy, and have nothing abnormal about them. My paternal grandfather is said to have had brain disease; my maternal grandmother died melancholic; a cousin of my mother was given to drink; several other blood-relations are abnormal mentally.

"I was four years old when my sexual appetite awoke. A man between twenty and thirty years old, who played with us children, and took us in his arms, excited in me the desire to embrace and kiss him passionately. This desire for sensual kissing on the mouth is characteristic of me, and it still forms the chief charm of my sexual gratification.

"I experienced a similar excitation in about my ninth year. A man who was ugly and dirty, and had a red beard, likewise excited in me this desire for him. Here was manifested, for the first time, a characteristic peculiar to me, which is still present,—*i.e.*, the peculiar stimulus which coarseness—the filthiness of a person in dress and conduct—is to my senses at times.

"While in the Gymnasium, from my eleventh to my fifteenth year, I was affected with a passion for a comrade. In this case, it was also my greatest pleasure to embrace him, and kiss him on the mouth. I was

often seized with a desire for him as intense as that I now have for persons I love. I think, however, that I first had erections in my thirteenth year. During these years, as I have said, I had only the desire to embrace and kiss; *cupiditas videndi vel tangendi aliorum genitalia mihi plane deerat*. I was a perfectly innocent, *näive* boy, and, until my fifteenth year, did not know the meaning of an erection; indeed, I never once ventured to kiss the beloved person; for I felt that it would be doing something strange. I felt no desire to masturbate, and also had the good fortune not to be seduced to it by older comrades. I have never yet masturbated; I feel a certain repugnance for it.

"In my fourteenth and fifteenth years I was seized with a passion for several young persons, some of whom still attract me. Thus I was very much in love with a boy with whom I had never spoken. It was even a delight to meet him on the street.

"That my passions were of a sensual nature is shown by the fact that, when I pressed and caressed the hands of those I loved, I had powerful erections. But it has always been my greatest pleasure *amplecti et os osculari*; I desired nothing else.

"I did not know that what I experienced was sexual love; I only said to myself that it was impossible that I alone felt such stimuli.

"Until my fifteenth year a woman had never excited me; but one evening, when I was alone with our servant-girl in a room, I experienced the same desire that I had for many boys. At first I played with her; and, when I found that she liked to be kissed, I covered her with kisses. I felt such sensual pleasure in it as I now seldom experience. Mouth to mouth, we kissed each other, and after about ten minutes ejaculation occurred. Thus I gratified myself two or three times a week. I soon began a similar relation with our cook, and with other servant-girls. Ejaculation always took place after kissing for about ten minutes.

"In the meantime, I had taken dancing-lessons. There I was first charmed by a nice girl; but this love soon disappeared, and I fell in love with another girl, with whom I never became acquainted, but at the sight of whom I felt an attraction like that of boys, and unlike the purely brutal passion I felt for other girls. At this time my impulse for girls was at its acme; I was pleased by about an equal number of girls and boys. As mentioned above, I gratified my sensuality by kissing the servant-girl and inducing ejaculation. Thus I spent the time from my sixteenth to my eighteenth year. The departure of the servant deprived me of opportunity.

"Then came two or three years during which I had to give up sexual pleasure. In general, girls pleased me less; and, too, now that I had grown older, I was ashamed to surrender myself to the servant-girls.

"It was not possible for me to obtain a mistress; for, notwithstanding my years, I was carefully watched by my parents, and associated but little with young men, and thus had but little independence.

With the diminution in the desire for women, the attractiveness of youths increased.

" Since I had had, since my sixteenth year, frequent pollutions at night with dreams,—in part of women and in part of men,—which weakened and depressed me exceedingly, I desired to make an end of them by means of normal coitus. But scruples and the belief that prostitutes would have no effect on me, kept me from the brothel until my twenty-first year. For two or three years I went through a daily struggle (if there had been male houses of prostitution, no scruples would have hindered me). Finally I visited a brothel. I could not even induce erection; for one reason because the girl, though she was unusually fresh and pretty for a prostitute, did not affect me; but really because she would not kiss me on the mouth. I was very much depressed, and thought I was impotent. Three weeks afterward I visited another prostitute, and she immediately induced erection by her kiss. She was erect and had thick lips, and was much more sensual than the first one. After only three minutes of simple kissing, mouth to mouth, ejaculation was induced,—of course, ante portam. Thus it was only after I had visited prostitutes about seven times that I was successful in coitus.

" At one time I would have no erection at all, because the girl made no impression on me; again I would ejaculate prematurely. The first times I was reluctant penem introducere; and, too, even after I was successful in normal coitus, I found no pleasure in it. Sensual satisfaction comes with kissing on the mouth; for me this is the principal thing, coitus serving only as something secondary to embracing. Coitus, no matter how much the woman might charm me, would be an indifferent matter without kissing; indeed, erection disappears, or does not occur at all, when the woman will not kiss on the mouth. Yet, I cannot kiss every woman, but only such as have faces pleasing to me; a prostitute, the sight of whom is repugnant to me, with any amount of kissing, which then only disgusts me, cannot excite me.

" Thus, during the last four years, I have visited brothels about every ten days or two weeks. Only seldom does coitus fail; for I have learned my peculiarities, and in the choice of a prostitute know immediately whether she will excite me or have no effect. Of late, however, it has again happened that I thought the woman would stimulate me, and yet no erection occurred. This happened when, the day before, I had to repress too forcibly the desire for men.

" At first, when I went to brothels, the sensual pleasure was very slight; only a very few times did I have true lustful feeling (as in kissing previously). Now, on the contrary, for the most part I experience sensual pleasure. The lower houses have a particular charm for me; for of late the coarseness of the women, the dark entrance, the yellow light of the lamps, and all the surroundings, have a peculiar charm for me; probably because my sensuality is unconsciously excited by meet-

ing soldiers, who frequent such places, and who at the same time lend a certain charm to the women. If I but find a woman whose face attracts me, I can have intense lustful pleasure. Besides by prostitutes, my desire can be excited by peasant-girls, servant-girls, working-women, and girls of the lower classes,—in general, by those in common dress. Red cheeks, thick lips, and erect forms please me particularly. I am absolutely indifferent to respectable women and young ladies.

“ My pollutions are usually without lustful pleasure, and often occur with dreams of men, but very seldom—almost never—with dreams of women. As is shown by the last circumstance, in spite of regular coitus, my desire is still for young men. Indeed, I may say that it has only increased, and that very markedly. Though immediately after coitus the girls have no charm for me, yet the kiss of a pleasing woman could immediately induce erection again. For the first few days after coitus, young men seem the most attractive to me.

“ Sexual congress with women does not satisfy all my sensual desire. I have days when I frequently have erections with an intense desire for young men ; then come quieter days, with moments of complete indifference for women and latent desire for men. On the other hand, too great sensual rest makes me melancholy ; viz., when such rest follows moments of repressed excitement. Only, then, when the thought of beloved youths again causes erection, do I feel light-hearted again. Then the rest changes to intense nervousness ; I feel depressed, and sometimes have headache (after repressed erection). This nervousness often increases to ungovernable restlessness, which I then seek to overcome by coitus.

“ Last year an essential change took place in my sexual life, when I dared to enjoy male love for the first time. In spite of pleasurable coitus with women (more correctly, pleasurable kissing with resultant ejaculation), my desire for young men gave me no peace. I determined to go to a brothel much frequented by soldiers, and, in extremity, to buy a soldier for myself. I had the good luck to meet immediately one like myself, who, notwithstanding his much lower station, in character and behavior was not unworthy of me. What I experienced (and still experience) with this young man is something different from what I feel with women. The sensual pleasure is not greater than with prostitutes, whose kisses and embraces excite me extraordinarily ; but I can experience lustful pleasure with him at any time, and for him I have a feeling that is wanting for women. Unfortunately, I have been able to embrace and kiss him only about eight times.

“ Though we have been separated many months, he having been sent to a garrison in Hungary, we have not forgotten each other, and keep up a regular correspondence. In order to possess him, I dared to go to a brothel and there embrace him, being in danger of being betrayed.

"Early in our acquaintance there came a time when I heard nothing more of him; for he did not think he could trust me. During these weeks I endured anxiety and pain that brought me into a state of depression and anxious restlessness, such as I had never before experienced. Scarcely to have found a lover and then to be compelled to lose him, seemed the greatest misfortune to me. When, thanks to my efforts, we met again, my joy was unbounded; indeed, I was so excited that, in his embrace again for the first time, in spite of my sensual lust, I could not induce ejaculation.

"*Usus sexualis in osculis et amplexionibus solis constitit, pene meo ludere ei licebat* (while the touch on it of a woman's hand is unendurable to me, and I never allow it). It is also to be noted that, in the company of my lover, I immediately have an erection; the pressure of his hand, or even his look, is sufficient. Evenings, for hours at a time, I have gone about with him, never tiring of his society for a moment, despite his inferior station. With him I feel happy, and the sexual satisfaction is merely the crowning of our love. Although I had finally found the man like myself, whom I had so long sought, and I could at last enjoy male love, yet I have not become insensitive to women; and I visit brothels when I am too sorely troubled by desire. I had hoped to be able to spend this winter in the city where my lover is; but this is, unfortunately, impossible, and I am now forced to be separated from him for an indefinite period. Nevertheless, we shall try to see each other, if only for a short time, and only once or twice a year; at least, I hope that in the future we may again be together for a longer time. Thus, for this winter, I am again compelled to be without a friend like myself. I had, indeed, resolved, on account of the danger of discovery, never to try to find another urning; but this is impossible. Sexual intercourse with women does not satisfy me, and my desire for young men constantly increases. I am often afraid of myself; afraid that, in asking all prostitutes, as I do, whether they know others like me, I might be discovered. Yet I cannot keep from seeking a youth like myself; indeed, I know that in case of necessity I shall buy a soldier, though I know perfectly well the penalty meted out to one caught in such circumstances.

"I can no longer do without male love; without it I should always be out of harmony with myself. My ideal would be to be associated with a number like myself; but I should be satisfied if I could have unrestrained intercourse with one lover. I could easily dispense with women, if I had regular male satisfaction; but I think that at long intervals I should embrace a woman for the sake of variety, as my nature is absolutely hermaphroditic in a psycho-sexual sense (women I can only desire sensually, but I can love and sensually desire young men). If there were marriage between men, I think I should not avoid a life-long union; while marriage with a woman seems to me something impossible.

For, in the first place, though the woman charmed me, the charm would soon be lost in regular intercourse, and then all sexual indulgence, if not impossible, would certainly be devoid of pleasure for me; and, in the second place, true love for the wife would be wanting—the attraction that I feel with young men I love, and which makes the intercourse that is not simply sensual seem desirable to me. The constant association with a youth physically pleasing and in mental harmony with me, and who could understand all my feelings and share my intellectual opinions and desires, would, it seems to me, be the greatest happiness.

“The young men who please me must be between eighteen and twenty-eight. As I have grown older, the limit of age in those pleasing to me has increased; otherwise, I am pleased with the most various forms. The principal rôle, if not the exclusive one, is played by the face. Blondes excite me more than dark persons; they must have no beard, but merely a small moustache that is not too thick, or none at all. As for the rest, the only thing I can say is, that certain kinds of faces please me. Faces with large, straight noses are excluded, as are also pale cheeks; but there are exceptions. I regard soldiers with favor, and many please me when in uniform who do not affect me when in civil dress. Just as in women certain ordinary articles of dress (like light-colored jackets) please me, so the military costume attracts me. To go to dance-halls—usually beer-halls—where there are many soldiers, and mix with the crowd of soldiers and boys that please me, and try to get a kiss and embrace,—this mingling with them would, of course, be an excitant only of sensuality; intellectually and socially, everything common in speech and conduct is repugnant to me.

“With young men of higher position, my sensual desire is less prominent.

“What I have said of the attractiveness of certain kinds of dress is not to be understood in the sense that they attract me in themselves. This charm only means that the dress may help to strengthen or make prominent the attraction exerted by the face, when, perhaps, the same face in itself would not attract me to the same extent. I may say the same thing, though with a different meaning, of the odor of lighted cigars. In indifferent persons the odor of cigars is rather repugnant than pleasing to me; but exciting in those sexually attractive. The kiss of a prostitute smelling of cigar-smoke, affords greater pleasure (because, even though in part unconsciously, I am reminded of the kiss of a man). Therefore, I took pleasure in kissing my lover just after he had smoked. (It is to be noted that I myself have never smoked a cigar or cigarette, and have never even tried to smoke.) I am tall and thin; my face is masculine; my eyes are restless; and in my whole form I often have something girlish. My health leaves much to be desired. It is much influenced by my sexual anomaly. As previously mentioned, I am very nervous, and I often have paroxysms of onomatomania. At times, I also

have terrible depression and melancholia, when I see the difficulty of gratification corresponding with my male-loving nature ; and when I am greatly excited sexually, and have overcome the desire, owing to impossibility of male gratification. In such conditions, often the depression is associated with absolute lack of sexual desire. In work I am industrious, but often too quick ; for I am inclined to work too rapidly and violently. I have a lively interest in art and literature. Among poets and writers of fiction, I prefer, for the most part, those who describe refined feelings, peculiar passions, and far-fetched impressions ; an artificial or hyper-artificial style pleases me. Likewise in music, it is the nervous, exciting music of a Chopin, a Schumann, a Schubert, or a Wagner, etc., that is in most perfect harmony with me. Everything in art that is not only original, but *bizarre*, attracts me.

"I do not like physical exercise, and do not practice it.

"In character I am kind and compassionate ; and, though I have much to suffer with my anomaly, I am not unhappy because I love young men, but because the satisfaction of such love is considered improper, and because I cannot gratify it without restraint. I cannot regard male love as a vice, though I can well understand why it is considered vicious. But, since this love is regarded as criminal, in gratifying it I am in harmony with myself, but not with our age of the world ; and, therefore, I must, necessarily, be somewhat depressed ; the more, since I have a frank character that hates a lie. The pain of having always to hide it all in myself has induced me to confess my anomaly to a few friends, of whose silence and appreciation I am confident. Nevertheless, my situation often seems sad. On account of the difficulty of gratification and the general abhorrence of male love, I am often a little proud that I have such anomalous feelings. Of course, I shall never marry. This does not seem any misfortune, even though I love family life, and have thus far lived only with my parents. I live in the hope that later I shall have a lover ; I must have one ; without one, the future seems dark and barren, and all the ambitions usually cherished—honor, position, etc.—seem empty and unattractive. If I should not have this hope fulfilled, I know I shall be unable to long devote myself to my business with pleasure, and I shall soon be in a condition to sacrifice everything to obtain male love. I no longer have any moral scruples on account of my anomalous inclination ; I have, in fact, never been troubled because I felt attracted to boys. I am much more inclined to judge morality and immorality in accordance with my feelings than in accordance with fixed principles ; for I have always been given to skepticism, and have never yet studied out a fixed belief for myself. As yet, only what injures others seems to me to be evil and immoral, and that that I would not have inflicted on myself ; and, in this direction, I may say that I try to infringe on the rights of others as little as possible, and that I am capable of great indignation at injustice inflicted on another. But,

why love of men should be something immoral, I cannot understand; purposeless activity of the sexual instinct (if the immoral is to be seen in all that is useless and unnatural) is also found in intercourse with prostitutes, and even in marriage where means to prevent conception are used; and it seems to me that the sexual intercourse of men must be placed on the same level with all sexual congress that has not procreation as an end. But that only sexual gratification that has this purpose is moral, seems to me to be questionable. Certainly, sexual satisfaction that is not directed to procreation is not contrary to nature; and, whether it has not other purposes unknown to us, is uncertain; and, even if it were purposeless, it would not necessarily be despicable (it is not certain that the measure of a moral act is its usefulness).

"I am very certain that present prejudice will disappear, and that when once such individuals experience male-love, the right of unrestricted love will be acknowledged. For the possibility of such recognition one need but recall the Greeks and their friendships, which were nothing but sexual love; and one has only to think that, despite such unnatural vice, practiced by their greatest men in intellectual and æsthetic matters, the Greeks are still regarded as an unattainable example, and held up for imitation.

"I have already thought of having my anomaly cured by hypnotism. If it were to be of any use, which I doubt, yet I should certainly desire to be assured of a lasting love for women. For even though I cannot satisfy myself with men, yet I prefer to feel this capability of inordinate lust and love, even ungratified, to being absolutely without feeling. Thus I still have the hope that I shall find opportunity to satisfy the love I desire, the love that would make me happy; and I should not prefer the suggestive removal of homo-sexual feelings, without the simultaneous substitution of a hetero-sexual equivalent, to my present condition. Finally, I should like to add, in contrast with the statements of urnings in the published biographies, that I, at least, find it very difficult to recognize those like myself. Though I have described my sexual anomaly somewhat in detail, it seems to me that the following notes are important for a better understanding of my condition:—

"Of late I have given up immissio penis, and confined myself to coitus inter femoræ puellæ. Ejaculation occurs earlier than with conjunctio membrorum, and I experience a certain lustful feeling in the penis itself. If this manner of sexual intercourse is quite pleasant to me, it is, perhaps, in part to be referred to the fact that in this kind of sexual indulgence the sex is quite indifferent, and I am, perhaps, unconsciously reminded of masculine embrace. But this memory is absolutely unconscious, and but obscurely felt; for I am not indebted to my imagination for my pleasure, but it is due immediately to kissing the woman's mouth. I feel that the charm which the brothel and prostitutes have for me also begins to fade; but I am sure certain women will

always be able to excite me by their kisses. Still, no woman is, or ever will be, so attractive as to induce me to overcome obstacles in winning her; but even the danger of discovery and disgrace could only with difficulty restrain me from seeking a man's embraces.

"Thus I lately allowed myself to be induced to buy a soldier at a prostitute's house. The lustful pleasure was very great, but the subsequent feeling of satisfaction was especially very exhilarating. The next day I felt similarly strengthened (capable of erection at any moment); and though I have not yet been able to meet the soldier again, the thought that I shall venture to purchase another gives me peace. But I could be perfectly satisfied only in finding one feeling like myself, of my own position and education.

"I have not yet mentioned that the female form (with the exception of the face) and genitals have no attraction for me (to touch the latter with my hand would be disgusting to me); but membrum virile me tangere dum os meum os ejus osculatur, mihi exoptatum esse; indeed, to kiss that of a very pleasing man would not be disgusting to me. Onanism, as has been said, would be quite impossible for me."

Case 111. *Psychical Hermaphroditism*.—Hetero-sexual feeling early interfered with by masturbation, but episodically very intense. Homo-sexual feeling *ab origine* perverse (sexual excitation by men's boots).

Mr. X., of high social position, Russian, aged 28, came to me in September, 1887, in a despairing mood, to consult me on account of a perversion of his vita sexualis, which made life seem almost unbearable to him, and which had repeatedly brought him near to suicide. The patient comes of a family in which neuroses and psychoses have been of frequent occurrence. In the father's family there had been consanguineous marriages for three generations. The father is said to have been a healthy man, and to have lived morally in marriage. However, his father's preference for fine-looking servants seems remarkable to the son. The mother's family is described as eccentric. The mother's grandfather and great-grandfather died melancholic; her sister was insane; a daughter of the grandfather's brother was hysterical, and had nymphomania. Only three of the mother's twelve brothers and sisters married. Of these, one brother was homo-sexual, and always nervous as a result of excessive masturbation.

The patient's mother is said to be a bigot, and of small mental endowment, nervous, irritable, and inclined to melancholia. Patient has a sister and a brother. The brother is frequently melancholy, and, though mature, has never shown the slightest trace of sexual inclinations. The sister is an acknowledged beauty, and much sought by gentlemen. This lady is married, but childless, as reported, owing to the impotence of her husband. She has always been indifferent to the attentions shown her by men, but is charmed by female beauty, and actually in love with some of her female friends.

With respect of himself, the patient asserts that, when four years old, he dreamed of handsome jockeys wearing shining boots. Too, he never dreamed of women when he grew older. His nightly pollutions were always induced by "boot-dreams." From his fourth year he had a peculiar partiality for men, or, more correctly, for lackeys wearing shining boots. At first they only excited his interest, but, with development of his sexual functions, the sight of them caused powerful erections and lustful pleasure. It was only servants' boots that affected him; the same kind of boots on persons of like social station were without effect on him. In a homo-sexual sense, there was no sexual impulse connected with these situations. Even the thought of such a possibility was disgusting to him. At times, however, he had sensually-colored ideas,—like being his servant's servant, and drawing off his boots; but the idea of being stepped on by him, or of having to blacken his boots, was most pleasing. The pride of the aristocrat rose up against such thoughts. In general, these notions about boots were disgusting and painful to him.

Sexual instinct was early and powerfully developed. It first found expression in indulgence in sensual thoughts about boots, and, after puberty, in dreams accompanied by pollutions; otherwise, the mental and physical development was undisturbed. Patient was well endowed mentally,—learned easily, finished his studies, and became an officer. On account of his distinguished, manly appearance and his high position, he was much sought in society.

He characterizes himself as a clever, quiet, strong-willed, but superficial man. He asserts that he is a passionate hunter and rider, and that he has never had any inclination for feminine pursuits. In the society of ladies he has always been reserved; dancing always tired him. He had never had any interest in a lady of high social position. As for women, only the buxom peasant girls, such as are the models of painters in Rome, had interested him. He had, however, never felt any sexual interest in such representatives of the female sex. In the theatre and circus only male performers had excited his interest; but, at the same time, they had caused him no sensual feelings. As for men, only their boots excited him, and, indeed, only when the wearers belonged to the servant class and were handsome men. Men of his own position, wearing never so fine boots, were absolutely indifferent to him.

With reference to his sexual inclinations, the patient is still uncertain whether he feels more inclination toward the opposite sex or toward his own sex. He is inclined to think that originally he had more inclination for women, but that this sympathy was, in any case, very weak. He states with certainty that the sight of a naked man made no impression on him, and that the sight of male genitals was even repugnant to him. In the case of women, this was not exactly the case, but he was not excited sexually even by the most beautiful feminine form. When a

young officer, he was now and then compelled to accompany his comrades to brothels. He was the more easily persuaded to this, since he hoped by this means to be rid of his vile partiality for boots; but he was impotent unless he brought the thought of boots to his aid. Under such circumstances, the act of cohabitation was normally performed, but without pleasurable feeling. Patient felt no impulse to intercourse with women, always requiring some external cause,—*i.e.*, persuasion. Left to himself, his vita sexualis consisted in reveling in ideas about boots, and in corresponding dreams with pollutions. Since more and more there became connected with them the impulse to kiss his servant's boots, to draw them off, etc., the patient determined to use every means to rid himself of this disgusting desire, which deeply wounded his pride. At that time, being in his twentieth year, and in Paris, he recalled a very beautiful peasant girl, who lived in his distant home. He hoped, with her assistance, to free himself of his perverse sexual inclination. He went directly home, and tried to win the girl's favor. It seems that the patient was not naturally homo-sexual. He asserts that at that time he was actually in love with this person, and that her glance, or the touch of her dress, gave him sensual pleasure; and, when she once kissed him, he had a powerful erection. After about a year and a half, the patient succeeded in gaining his desires with this person.

He was potent, but ejaculated tardily (ten to twenty minutes), and never had a pleasurable feeling in the act.

After about a year and a half of sexual intercourse with this girl, his love for her grew cold, because he did not find her so "fine and pure" as he wished. From this time it was necessary for him to call upon ideas about boots for help, which had been latent, in order to be potent in sexual intercourse with her. In proportion as his power failed, these ideas arose spontaneously. Thereafter he had coitus with other women. Now and then, especially when the woman was in sympathy with him, the act took place without any assistance of imagination. It once happened that the patient committed a rape. It is remarkable that on this single occasion he had a pleasurable feeling in the (forced) act. Immediately after the deed he had a feeling of disgust. When, an hour after the forced indulgence, he had coitus with the same woman, with her consent, he experienced no feeling of pleasure.

With decrease of virility,—*i.e.*, when it was preserved only in connection with ideas about boots,—libido for the opposite sex decreased. The patient's slight libido and weak inclination for women are evidenced by the fact that, while he still sustained sexual relations with the peasant girl, he began to masturbate. He learned the vice from "Rousseau's Confessions," the book accidentally falling into his hands. The boot-fancies immediately linked themselves with corresponding impulses. He then had violent erections, masturbated, and ejaculation afforded

him a lively feeling of pleasure, which was denied to him in coitus; and at first he felt himself fresher and brighter, as a result of the masturbation.

In time, however, symptoms of sexual, and, later, of general, neurasthenia, with spinal irritation, appeared. He then at first gave up masturbation, and sought his first love; but she was now more than ever indifferent to him. Since he finally became impotent, even when he called ideas of boots to his assistance, he gave up women entirely, and again practiced masturbation; by which he felt himself protected from the impulse to kiss and blacken servants' boots. At the same time, he continued to feel that his sexual position was a painful one. He again occasionally attempted coitus, and was successful in it as soon as he thought of blackened boots. Too, after continued abstinence from masturbation, he was sometimes successful in coitus without any artificial aid.

The patient says that his sexual needs are intense. If he has not had an ejaculation in a long time, he becomes congestive and psychically much excited, and tormented by repugnant images of boots, so that he is forced to have coitus, or, preferably, to masturbate.

For some time his moral position has been complicated most painfully by the fact that, as the last of a wealthy line of high position, and at the importunate desire of his parents, he must marry. The bride is of rare beauty, and mentally in perfect sympathy with him; but, as a woman, she is as indifferent to him as any other. Ästhetically she satisfies him "as a work of art;" in his eyes, she is an ideal. To honor her in a platonic way would be happiness worth striving for; but to possess her as a wife is a painful thought. He is certain beforehand that with her he will be impotent, save with the help of ideas of boots. To use such means, however, is in opposition to his respect and his moral and æsthetic feeling for the lady. Were he to soil her with such thoughts, she would lose, in his eyes, all her æsthetic value; and then he would become impotent for her, and she would become repugnant to him. The patient considers his position one of despair, and confesses that he has lately been repeatedly near suicide.

He is a man of much intelligence, and decidedly of masculine appearance, with abundant growth of beard, deep voice, and normal genitals. The eye has a neuropathic expression. No signs of degeneration. Symptoms of spinal neurasthenia. It was possible to reassure the patient, and give him hope of his future.

The medical advice consisted in means for combating the neurasthenia, and the interdiction of masturbation and indulgence of the fancy in images of boots, in the hope that, with the removal of the neurasthenia, cohabitation without ideas of boots would become possible; and that, in time, the patient would become morally and physically capable of marriage.

In the latter part of October, 1888, the patient wrote me that he had resolutely resisted masturbation and his imagination. In the interval he had had but one dream about boots, and scarcely a pollution. He had been free from homo-sexual inclinations, but, in spite of this, there was often considerable sexual excitement, without anything like adequate libido for women. In this deplorable situation, he was compelled, by circumstances, to marry in three months.

2. *Homo-Sexual Individuals, or Urnings.*—In distinction from the preceding group of psycho-sexual hermaphrodites, there are here, *ab origine*, sexual desires and inclinations for persons of the same sex exclusively; but, in contrast with the following group, the anomaly is limited to the *vita sexualis*, and does not more deeply and seriously affect the character and mental personality.

The *vita sexualis* of these urnings, *mutatis mutandis*, is entirely like that in normal hetero-sexual love; but, since it is the exact opposite of the natural feeling, it becomes a caricature, and this the more, since these individuals, at the same time, as a rule, are subject to hyperæsthesia sexualis, and, therefore, their love for their own sex is emotional and passionate.

The urning loves and deifies the male object of his affections, just as a man idealizes the woman he loves. He is capable of the greatest sacrifice for him, and experiences the pangs of unfortunate, often unrequited, love; suffers from the unfaithfulness of the beloved object, and is subject to jealousy, etc.

The attention of the male-loving man is given only to male dancers, actors, athletes, statues, etc. The sight of female charms is indifferent to him, if not repulsive. A naked woman is disgusting to him, while the sight of male genitals, hips, etc., affords him infinite pleasure.

The bodily contact of a sympathetic man induces a thrill of delight; and, since such individuals are mostly sexually neurasthenic, congenitally or from onanism or enforced abstinence from sexual intercourse, under such circumstances ejaculation is very easily induced, which, in the most intimate intercourse with women, cannot be induced at all, or only by mechanical means. The sexual act with a man, in many

instances, affords pleasure, and leaves behind a feeling of well-being. Should the urning be able to force himself to coitus, in which, as a rule, disgust has the effect of an inhibitory concept, and makes the act impossible, then his feeling is something like that of a man compelled to take disgusting food or drink. However, experience teaches that not infrequently urnings falling in this group marry, either out of ethical or social considerations.

Such unfortunates are relatively potent, in that in marital intercourse they incite their imagination, and, instead of thinking of their wives, they call up the image of some loved male person. But for them coitus is a great sacrifice, and no pleasure; and it makes them, for days after, nervous and miserable. If such urnings, by means of powerful excitation of their imagination, or under the influence of alcoholic drinks, or by erections induced by an overfilled bladder, etc., are enabled to overcome the inhibitory feelings and ideas, then they are still entirely impotent; while simply the touch of a man may induce powerful erection, and even ejaculation.

Dancing with a woman is unpleasant to an urning, but to dance with a man, especially one with an attractive form, seems to him the greatest of pleasures. The male urning, in so far as he possesses higher culture, is not opposed to non-sexual intercourse with women, when by mind and refinement they make conversation pleasant. It is only of woman in her sexual *rôle* that he has a horror. The homo-sexual woman offers the same manifestations, *mutatis mutandis*. In this degree of sexual degeneration, character and occupation correspond with the sex which the individual represents. The sexual perversion remains isolated, but an anomaly of the mental being of the individual which deeply affects the social existence. In accordance with this, many of these individuals, in the sexual act, feel themselves in the *rôle* which would naturally belong to them in heterosexual intercourse.

However, transitions to group 3 occur, in as much as sometimes the passive *rôle* which corresponds with the homo-sexual manner of feeling, is thought of or desired, or at least forms

the subject of dreams. Moreover, inclinations for occupations and tendencies of taste are manifested, which do not correspond with the sex of the individual. In many cases, one gets the impression that such symptoms are artificial, the result of educational influences; in other cases, that they represent deeper acquired degenerations of the original anomaly, induced by the perverse sexual activity (masturbation), analogous to the signs of progressive degeneration observed in acquired inversion of the sexual instinct.

With regard to the manner of sexual satisfaction, it must be stated that with many male urnings simple embraces are sufficient to induce ejaculation, since they are subject to irritable weakness of the sexual apparatus. In case of sexual hyperesthesia, and where there is paresthesia of the moral sense, great pleasure is afforded by intercourse with persons of the lowest condition. On the same basis, desires to commit pederasty (active, of course) and other similar acts occur, though it is but seldom, and apparently only in cases of moral defect, and by reason of libido nimia in individuals especially passionate, that pederasty is indulged in. The sensual desire of mature urnings, *in contradistinction from old and decrepit debauchees, who prefer boys (and indulge in pederasty by preference), seems never to be directed to immature males.* Only for want of better material, and in case of violent passion, does the urning become dangerous to boys. The manner of sexual satisfaction in female urnings may be mutual and passive masturbation. To them coitus is quite as disgusting, wearisome, and inadequate as it is to the male urning.

Case 112. The following is an extract from a very circumstantial autobiography which a physician affected with contrary sexual instinct has put at my disposal :—

" I am now forty years old, of healthy family,¹ and have always been healthy and considered a model of physical and mental strength and energy. I am of powerful build, but have only a moderate beard, and, with the exception of hair in the axillæ and on the mons veneris,

¹ Later it became known that a near relative died insane, and, further, that eight of his parent's children had died of acute or chronic hydrocephalus at ages ranging from one to fifteen.

my body is hairless. The penis, even soon after birth unusually large, measures, in statu erectionis, 24 centimetres long by 11 centimetres in circumference. I am a skillful rider, athlete, and swimmer, and have passed through two great campaigns as a military surgeon. I never experienced any taste for female attire and vocation. Up to the time of puberty I was shy toward the female sex, and I am yet shy with new acquaintances.

"I have always had a distaste for dancing. In my eighth year an inclination for my own sex made its appearance. I next experienced pleasure in regarding my brother's genitals. I induced my brother to indulge with me in mutual fondling of the genitals, as a result of which I had an erection. Later, in bathing with the school-children, the boys excited a lively interest in me; the girls, none at all. I had so little interest in them that, as late as my fifteenth year, I believed that they also had a penis. In company with boys like myself, I took pleasure in mutual manustupration. At eleven and a half years I was given a strict tutor, and thereafter could steal to my friends but seldom. I learned very easily, but could not get along with my teacher; and when one day he made it too hard for me, I became furious and struck at him with a knife, and would have gladly stabbed him, if he had not fallen into my arms. In my thirteenth year, for a similar cause, I escaped from the teacher, and wandered about for six weeks in the neighboring country.

"I now entered the Gymnasium. At that time I was already sexually developed, and amused myself while bathing with my comrades in the way above mentioned, and later by imitatio coitus between the thighs. I was then thirteen years old. I took absolutely no pleasure with girls. Violent erections caused me to play with my genitals, and I came to take my penis in my mouth, which I succeeded in doing by bending over. This induced ejaculation. I thus learned masturbation. I was much frightened, looked upon myself as a criminal, and confessed to a companion of sixteen. He encouraged and quieted me, and entered into a love-bond with me. We were happy, and satisfied ourselves by mutual onanism. At the same time, I masturbated. After two years the bond was broken; but to this day, when we occasionally meet,—my friend is a high official,—the old fire lights up anew.

"That time with my friend H. was a happy one, the return of which I would gladly buy with my heart's blood. Then life was a pleasure, learning was mere play, and I had a feeling for everything beautiful.

"During this time a physician, a friend of my father's, seduced me by caressing me and practicing masturbation on me on the occasion of a visit, and by explaining the sexual act to me. He advised me never to practice manustupration, since it was injurious to health. He then practiced mutual onanism with me, and explained that this was the only way in which he could perform the sexual function. He had a horror of women, and, therefore, had lived unhappily with his deceased wife.

He gave me a pressing invitation to visit him as often as possible. The physician was a pompous man, and the father of two sons aged fourteen and fifteen respectively, with whom in the following year I entered into love-relations similar to those I had with my friend H.

"I was ashamed of my unfaithfulness to him, but at the same time continued my relations with the physician. He practiced mutual masturbation with me, showed me our spermatozoa under the microscope, and pornographic works and pictures, which, however, did not please me, because I had interest only for male forms. On the occasion of later visits, he asked me to do him a favor which he had never yet enjoyed, and which he very much desired. Since I loved him, I acquiesced in everything. He dilated my anus with instruments, and practiced pederasty on me, and at the same time performed masturbation, so that I experienced pleasure and pain at once. After this discovery I went immediately to my friend H., with the thought that this beloved man would be able to give me still greater pleasure. We practiced pederasty on each other, but were both deceived, and did not repeat it; for passively I had only pain, and actively no pleasure, while mutual onanism gave us both the greatest enjoyment. Thereafter, out of gratitude, I was still frequently at the disposal of the physician only. Up to my fifteenth year I practiced passive or mutual onanism with my friend. Now I was quite grown, and had all kinds of signs made to me by women and girls; but I fled from them as Joseph did from Potiphar's wife. At fifteen I came to the Capital. I had but infrequent opportunity for the satisfaction of my sexual inclination. I reveled in the sight of pictures and statues of male forms, and could not keep from kissing the beloved statues. The fig-leaves on the genitals were my principal annoyance.

"At seventeen I went to the University. There, again, I lived two years with my friend H.

"When I was in my eighteenth year, while in a state of mild intoxication, I was set on to have coitus with a woman. I forced myself to it, but immediately afterward I fled the house, overcome with disgust. Just as after the first active manupruration, I had a feeling as if I had committed a crime. On the occasion of another attempt, while in a sober condition, in spite of every effort of a beautiful naked girl, I could not get an erection; though the mere sight of a boy or the touch of a man's hand on my thigh, would always throw my penis into violent erection. A short time before, my friend H. had had a similar experience. In vain we racked our brains to discover the reason for it. Now I let women alone, and found enjoyment with friends in passive and mutual onanism, among others with both the sons of the physician, who had used them for pederasty after my departure.

"When nineteen years old, I made the acquaintance of two genuine urnings:—

"A., aged 56, of effeminate appearance, beardless, of small endow-

ment mentally, possessing a powerful sexual desire that had been manifested abnormally early, had indulged in urnings' love since his sixth year. Once a month he visited the Capital. I had to sleep with him. He was insatiable in mutual onanism, and made me take part in active and passive pederasty, which was an unpleasant part of the bargain for me."

"B., a merchant, aged 36, of masculine appearance, was as passionate as I was. He knew how to make his manipulations on me such a stimulus that I had to serve him passively in pederasty. He was the only one with whom I ever had any pleasure in passive pederasty. He confessed to me that when he but knew that I was near, he had the most painful erections; and that when I could not serve him, he was compelled to satisfy himself by masturbation.

"While pursuing these love-affairs, I was clinical assistant in hospital, and was considered ambitious and skillful in my work. I naturally sought throughout literature for an explanation of my sexual peculiarity. I found it in part as a crime deserving punishment, while for myself I could only recognize in it the natural satisfaction of my sexual desire. I was aware that this was congenital with me. But feeling myself in opposition to the whole world, often near insanity and suicide, I again sought to satisfy my powerful sexual desire with women. The result was always the same,—either want of sufficient erection, or, when it became possible, to force myself to the act, disgust and horror of its repetition. As a military surgeon, I suffered terribly from the sight and touch of thousands of naked male forms. Fortunately, I formed a love-bond with a lieutenant affected similarly, and passed again a time of happiness. For love of him I consented to pederasty, for which he longed. We loved each other until he lost his life at Sedan. From that time I never gave myself to active or passive pederasty, although I had many love-affairs, and was a person much sought.

"At twenty-three I went to the country as a physician, and was sought and esteemed. I satisfied myself with boys over fourteen. I interested myself in political affairs, and made an enemy of the clergyman, and, being betrayed by one of my lovers, was denounced and compelled to flee. The legal investigation, fortunately, did me no harm. I was able to return, but I was greatly shaken; and I went to the war (1870) as a soldier, in the hope of meeting my death. I returned, however, with many distinctions, much matured; and I found still more pleasure in earnest work in my profession. I hoped that the extinction of my excessive sexual desire was near at hand, exhausted by the great hardships of the campaign.

"Scarcely had I recovered, when the old unbounded desire again appeared, and led to new unbridled satisfaction. Of course, I often thought of it; but my inclination, so revolting to the world, did not seem so to me.

"For a year, by means of the greatest exercise of my will, I abstained; then I went to the Capital to force myself to cohabit with a woman. I, who at the sight of the dirtiest ragamuffin had painful erections, could scarcely induce one with the most beautiful woman. Overcome, I returned home and obtained a young man-servant for my personal service and satisfaction.

"The solitude of life as a country physician, and the longing for children, drove me to marriage; besides, I wished to make an end to gossip, and I hoped finally to triumph over my fatal desire.

"I knew a young girl, of whose respect and love for me I was convinced. Through my esteem and honor for my wife, I was enabled to perform the conjugal duties, and begat four boys. The boyish appearance of my wife was of effectual assistance. I called her my 'Raphael.' I forced into my fancy images of boys, in order to induce erection. If my fancy ceased for a moment, the erection failed. I was unable to sleep with my wife. Within the last few years coitus has become constantly more difficult to attain, and for two years we have given up all attempts. My wife knows my mental condition, and her esteem and love for me may become estranged.

"My sexual inclination for my own sex is unchanged, and, unfortunately, too often forces me to become untrue to my wife. To this day, the sight of a youth of sixteen puts me into violent sexual excitement with painful erections, so that occasionally I am compelled to help myself with manustupration of him and onanism on myself.

"The sufferings I endure are indescribable. *Faute de mieux*, I have my wife practice manustupration on me; but what my wife's hand accomplishes with great effort in half an hour is produced by the hand of a boy in a few seconds. Thus I live, miserable, a slave of the law and of my duty to my wife! I never had pleasure in active or passive pederasty. If I ever practiced or suffered it, it was only from gratitude or desire to please."

The physician to whom I owe the preceding autobiography assures me that he, up to this time, has had sexual intercourse with at least six hundred urnings. There were, indeed, many among them who to-day occupy high and respected positions. Only about ten per cent. of them came later to love women. Another portion did not avoid women, but were more inclined to their own sex; the remainder were exclusively and lastingly urnings.

This physician asserted that among the six hundred he never found abnormal formation of the genitals; but there were, however, frequent approaches to the female form, as well as in-

complete growth of hair, delicate complexion, and higher voice. Development of the mammae was not infrequent. He asserted that from his thirteenth to his fifteenth year he had milk in his mammae, which his friend H. sucked out. Only about ten per cent. of this number showed inclination for female occupations, etc. All his acquaintances were affected with a sexual desire that was abnormally powerful, and made its appearance abnormally early. The vast majority felt themselves as the man in their relations with the other, and satisfied themselves by mutual onanism, or by manustupration on the person of the lover, or by masturbation at his hands. The majority were inclined to active pederasty; but very frequently the law and æsthetic feeling were reasons for the non-performance of the act. Those feeling themselves toward the others as women were few, and the inclination to passive pederasty was very infrequent.

In the beginning of 1887, this physician was arrested for having committed acts of indecency on the persons of two boys under fourteen years. The crime consisted in his having first rubbed mentulam propriam inter femora viri until ejaculatio, and the same procedure cum mentula propria inter femora pueri. At the examination it was recognized that an abnormal instinct was in play, though, at the same time, it was shown that the culprit was not mentally unsound, and not deprived of free will; at least, he had not acted in obedience to an uncontrollable impulse. Therefore, he was sentenced to prison for one year, the mildest possible punishment.

Case 113. Mr. X., Hungarian, merchant, consulted me on account of neurasthenia and sleeplessness, which had existed for years. The investigation of the cause of his trouble led the patient to confess that he had an abnormal sexual instinct for his own sex, that he was very passionate, and that his nervous trouble might well come from that. The following, taken from the history of this intelligent patient, possesses scientific interest:—

" My abnormal sexual instinct reaches back to my childhood. When three years old, I got hold of a journal of fashions. The beautiful pictures of the men I kissed until the paper was torn to tatters, but I paid no attention to the female figures. I did not like to play with boys. I preferred to play with girls, because they always had dolls. I especially liked to cut out dolls' clothes; and to-day, in spite of my thirty-three years, dolls still possess an interest for me. When a boy, for hours I would lurk about available places, in order to get a sight of male genitals. When I succeeded, a strange, dizzy feeling came over me.

Weak, unattractive men or boys made no impression on me. At thirteen I began to masturbate. From my thirteenth till my fifteenth year, I slept with a handsome young man. That was happiness. Hours at a time at night, with erections, I would wait for his return. If in bed he chanced to touch my genitals, it gave me delight. At fourteen I had a school-mate whose instincts were like my own. For hours at a time, during school-hours, we held each other's genitals. Ah, those were happy hours! As often as I could, I lingered in bath-houses. That was always a feast for me. The sight of male genitals induced violent erections. At sixteen I came to the metropolis. Seeing so many handsome men charmed me. In my eighteenth year I attempted coitus with a prostitute, but disgust and fear made it impossible. Other attempts were failures, until my nineteenth year, when I tried again with success; but the act afforded me no pleasure, rather inducing a feeling of disgust. I conquered myself, and was proud of my success at being a man, which I had gradually begun to doubt.

"Subsequent attempts were no longer successful. The disgust was too great. When the woman was undressing, it became necessary, on account of my feeling of repugnance, to put out the light. I now considered myself impotent, consulted physicians, and visited baths and sanitariums to cure my supposed impotence; for I still did not know what to think of it. I took pleasure in the society of ladies, perhaps out of conceit; for I impressed most ladies as being sympathetic and amiable; but I valued in them nothing more than mental and æsthetic qualities. I liked to dance with them; but if one pressed against me in dancing, I experienced a feeling of repugnance, and even disgust, and felt like striking her. If in joke I happened to dance with a gentleman, I always took the part of the lady. I would press and rub against him, and take a perfect delight in it. When I was eighteen, a gentleman who came into the office, said, 'That is a fine youth; in the East he would bring a pound sterling every time!' I puzzled my head over that. Another gentleman liked to joke with me, and steal kisses of me as he was going away, which I would have given him only too gladly. He afterward became my lover. These circumstances excited my attention, and I waited for an opportunity.

"When I was twenty-five years old, it happened that a man who was formerly a Capucine monk became attracted to me. For me he was like a Mephistopheles. Finally he spoke to me. To this day I can almost feel the beating of my heart that he caused me; I almost fainted. He made a rendezvous for that evening at a public house. I went, but at the threshold I turned back, afraid. On the next evening he met me again. He overcame my scruples, and took me to his room. I was scarcely able to walk for excitement. My seducer made me sit on his sofa, and, smiling at me, he fixed his wonderful black eyes on me, and I lost consciousness. This delight, this ideal, divine sense of pleasure that filled my

whole being,—I could write too much about it. I think only an innocent youth, over head and ears in love, who for the first time has his love's longing fulfilled, could be as happy as I was that night. My seducer demanded my life, in joke; but I at first thought him in earnest. I begged him to let me be happy for a time, and then, united to him, I would end my life. It would have been entirely in accordance with the high-flown ideas I entertained at that time. For five years after that, I kept up a relation with the man, who is still so dear to me. Oh, how happy, and yet, often, how unhappy, I was during those years! If I but saw him speak to a handsome young man, I became wildly jealous.

"When twenty-seven, I became engaged to a young lady. Her mind and æsthetic feeling, as well as financial considerations, induced me to think of marriage. At the same time, I am very fond of children, and, whenever I meet even the commonest day-laborer and his wife and a pretty child, I envy the man his good fortune. Thus I made a fool of myself. I managed to get through the time of courtship; when kissing my bride I felt more anxiety and fear than pleasure. On one or two occasions, however, after luxurious dinners, while kissing her passionately, I had erections. How happy I was at that! I saw myself already a father. I twice came near breaking off the engagement. On my marriage-day, when all the guests had assembled, I locked myself in a room, cried like a child, and felt that I could not proceed with the ceremony. At the persuasion of all the relatives, to whom I made the best excuses that occurred to me, I allowed myself to be taken, in ordinary street-costume, to the altar.

"As great good fortune would have it, at the time of the marriage, my wife was menstruating. Oh, how thankful I was for this excuse! I am now convinced that this circumstance is all that made later cohabitation possible. How it later became possible for me to cohabit with my wife, and have a lovely boy, I do not know. He is the comfort of my ruined life. I can only thank God for the happiness of having a child. I was a cheat, so to speak, in the marriage-bed. My wife, whom I respect for her high qualities of character, has no suspicion of my condition, but she often complains of my coldness. With her goodness of heart and simplicity, it was possible for me to make her think that the conjugal duty should be performed but once a month. Since she is in nowise sensual, and I can find excuse in my nervousness, I am successful in keeping up the swindle. Cohabitation is the greatest sacrifice for me. By taking considerable wine, and by making use of the erections which occur in the morning, as the result of an overfilled bladder, it is possible for me to perform coitus once a month; but it affords me no pleasurable feeling, and I am worried and experience an increase of my nervous difficulties all day long after it. The consciousness of having fulfilled my duty toward my wife, whom in all other respects I love, affords me moral consolation and satisfaction. With a man, it is

otherwise. With him I can perform the act several times in a night, always taking the sexual rôle of a man. In this, I experience the greatest pleasure, the purest happiness. I feel myself refreshed and invigorated by it. Of late, my desire for men has somewhat decreased; in fact, I have courage even to avoid a handsome young man that approaches me. Will it last? I fear not. I am absolutely unable to do without male love; if I am compelled to forego it, I become depressed, feel weary and miserable, and have pain and pressure in my head. I have always regarded my pitiable peculiarity as something congenital, and I would feel happy if I had only not married. I pity my good wife. Often the fear seizes me that I cannot endure it with her longer; then thoughts about divorce, suicide, and flight to America come to me."

No one seeing the patient to whom I owe this communication would suspect his condition. His outward appearance is, in all respects, masculine; he has a well-developed, full beard, strong and deep voice, and normal genitals. The cranium is normally formed; signs of degeneration are absolutely wanting, and only an exquisitely nervous eye makes one suspect a neuropathic condition. The vegetative organs perform their functions normally. The patient presents the usual symptoms of a neurasthenia, which may, in all essentials, be ascribed to sexual excesses with persons of his own sex, in a man abnormally passionate; and to the injurious influences of forced, though infrequent, coitus with the wife where *horror feminæ* exists.

The patient declares that he comes from healthy parents, and that he knows of no neuroses or mental disease in his ancestry. His elder brother was married three years. There was a separation, because the husband never had sexual intercourse with his wife. He married a second time. The second wife also complained of neglect on the part of the husband; but she had four children, concerning whose legitimacy no doubt was ever raised. A sister is hysteropathic.

The patient says that, when a young man, he suffered with momentary attacks of dizziness, during which it seemed to him as if he were about to die. He says that he has always been very excitable and emotional, and an enthusiast for the arts, especially poetry and music. He himself designates his character as enigmatical, abnormal, nervous, restless, extravagant, and undecided. He is often exalted without real reason, and then again depressed, even to thoughts of suicide. He may pass through quick and sudden changes,—“religious and frivolous, optimistic and cynical, cowardly and brave, credulous, amiable, and suspicious; inclined to do others harm, and sorrowful to tears over the misfortunes of others; and with this, generous to excess, and then again miserly à la *Harpagon*.” The patient is certainly a tainted individual. He seems to be very well endowed intellectually, and, as he says, to have learned easily, and been among the first at school.

The marriage of this man was not happy. Notwithstanding the

fact that it was but very infrequently that he performed the inadequate and injurious sexual act with his wife, and that he sought and found a substitute in male lovers, he remained neurasthenic. His disease, at times, presents marked exacerbations, even manifesting itself in despairing depression about his matrimonial, sexual, and mental condition, which even extends to violent *tedium vitae*.

His wife became hysteropathic and anaemic, and the patient attributed this to sexual abstinence. Try as he would to force himself, of late years he has not been able to perform coitus, erection failing completely; while, in intercourse with male lovers, he is very potent.

The son of these unfortunate parents, who is now over nine years old, develops well. The patient adds that formerly, in coitus with his wife, he was potent only when he thought of a beloved man. (From the author's "Lehrb. der Psychiatrie.")

Case 114. *Autobiography.* "The writer of this is a congenital urning. If I have not consorted with other urnings, nevertheless, I am fully informed of my condition; for it has been my lot to see almost all literature on the subject. A short time ago, your work, 'Psychopathia Sexualis,' was sent to me. I saw in it that you were working and studying without prejudice in the interest of science and humanity.

"If I cannot tell you much that is new, yet I will speak of a few things which I trust you will receive as one more stone to be used by you in your work; which, I am confident, will, in your hands, aid in saving us.

"When you presume that there is often an hereditary tainted condition, perhaps you are right. My father was subject to spinal disease before my birth; later, he became mentally unsound, and took his own life.

"Another point, which I am inclined to doubt, is the one mentioned by you in another place,—*i.e.*, that onanism practiced from youth may lead to perverse instinct.

"I (merchant, owner of a small business, unmarried) am in the beginning of my thirtieth year. I am apparently healthy, and show scarcely a deviation from the normal masculine type. The first sexual impulses were immediately and exclusively directed to the male sex, and I experienced them from my tenth year. I have masturbated since my twelfth year. Since, in spite of all attempts, coitus with women was always absolutely impossible for me; and since I have never had desire for women—on the contrary, rather aversion; and since my attempts have never resulted in the slightest erection, I have been compelled to satisfy myself by onanism.

"If now I am to confess the manner of my sexual satisfaction, I may say that in my earlier years my fellow-pupils and companions excited me sexually. Now my impulse consists in a desire for boys of about ten, but mostly for youths of from fifteen to twenty years.

"For a long time, strong and healthy cadets, of fine form, have had

a particular charm for me ; and by their handsome uniforms and fine presence they especially excite my desire. I have no opportunity to approach them, or even to enter into distant social intercourse with them ; but I am compelled to satisfy myself with following them in the streets and squares ; or in restaurants, horse-cars or railways, by sitting near them, and, when it is possible to do it unnoticed, under such circumstances, by practicing onanism. My most ardent wish has often been to become the friend, servant, or slave of such a young man.

"I have never even dreamed of direct pederasty ; my desire has always been bodily contact, embrace, manustupration of my genitals by my lover, and, on my part, a kiss on his genitals or podex.

"I often have the desire, however, to represent Sacher-Masoch in his 'Venus in Furs.' There a man makes himself the voluntary slave of a woman, and feels an intense thrill of lustful pleasure, if he is only chastised and humiliated by her. But I naturally feel that I could, under no circumstances, become the slave of a woman, but only of a man ; more correctly, of a young man ; one, however, for whom I should have such an infinite love that I could give myself up entirely to his mercy or cruelty.

"The lustful images that float before my mind in masturbation are those of this or that young man that I have just seen. As a sad and incomplete substitute, I practice this onanism constantly.

"I pass into a lustful dream in this way (and I say all here, because I wish to write only the truth and the whole truth) : I choose a young man that pleases me by his form, and in imagination give myself up to involuntary obedience to him. I imagine that he wishes to humiliate me, and that he commands me, for example, to kiss his feet ; or compels me to smell his socks. For want of the desired actuality, I take my own socks, smell of them, take them into my mouth, rub them over my genitals, and immediately erection and ejaculation, with sensual pleasure, take place.

"Yes, I am so dominated by this mental imagery that I imagine that the young man is my confessor, and, in order to humiliate me, orders me to eat of his excrement. Here again, in want of actuality, I eat of my own excrement, but only in small quantity. Then, with an imperfect feeling of disgust and violent palpitation of the heart, erection and ejaculation take place.

"However, I come to this vile, feverish imagery and the performance of these acts, only when it has not been possible for me for a long time to satisfy myself by onanism in the immediate vicinity of a young man.

"This is for me more natural, because I then have more pleasure, and experience a more perfect physical and mental benefit, even though my ideal of actual and direct satisfaction in mutual understanding were never to be accorded me.

"I almost believe that the above-mentioned disgusting imagery is only the evil result of constant want of normal satisfaction,—*i.e.*, of my normal satisfaction as an urning; and that with a regular satisfaction, body to body, the imagery that becomes almost insane would be less intense, and certainly would not go to such extravagance. Or it is the ultimate result of an attempt at abstinence; for these idiotic, sensual images only come after a long period of it.

"I believe, indeed, that, under other social conditions, I should be capable of great and noble love and self-sacrifice. My thoughts are in no way exclusively carnal or diseased. How often, at the sight of a handsome young man, a deep feeling of impatience seizes me, and I breathe at once the sweet words of Heine :—

"‘Du bist wie eine Blume, so hold, so schön, so rein,’ etc.¹

"And once, when I was compelled to part with a young man who had honored and valued me as his friend and protector, though my love had remained unknown to him, those fine verses by Scheffel kept passing through my mind, especially the last,—*mutatis mutandis* :—

"‘Grau wie der Himmel, steht vor mir die Welt,
Doch wend’ es sich zum Guten oder Bösen,
Du, lieber Freund, in Treuen denk’ ich Dein!
Behüt Dich Gott! es wär’ zu schön gewesen,
Behüt Dich Gott, es hat nicht sollen sein!'²

"I have never independently revealed my love to a young man, and have never spoiled or injured one morally; but I have, now and then, made the way easy for many. Under such circumstances, nothing is too much trouble, and I obtain victims as only I can.

"When I have an opportunity to have such a beloved friend about me, to educate, protect, and help, if my recognized love find a (natural, unsexual) return, then all my disgusting mental imagery grows less and less intense; then my love becomes almost platonic and ennobled, to sink again into the mire when this worthy satisfaction is removed.

"As for the rest, and without over-estimating myself, I may say that I am not one of the worst of men. Brighter mentally than the average man, I take interest in all that moves humanity. I am amiable, and easily moved to pity, and am incapable of doing any animal, much less a man, an injury; but, on the contrary, do good wherever I can.

"When I have nothing to reproach myself with in my own conscience, and must, at the same time, set myself in opposition to the

¹ "Thou art like any flower, so sweet, so beautiful, so pure," etc.

² "Lowering like the heavens, frowns the world on me,

Yet blest or cursed will be the fate I meet.

With trusting heart, dear friend, I think of thee!

God keep thee, dear! it would have been too sweet!

God keep thee, dear! such happiness was not to be!"

judgment of the world, I suffer very much. Indeed, I have done no one harm, and I consider my love, in its noblest activity, to be quite as holy as that of a normal man ; but, with the unhappy lot which impatience and ignorance cast upon us, I suffer even to the extent of *tedium vitæ*.

"No pen, no tongue can describe all the misery, all the unhappy situations, the constant fear of having this peculiarity recognized, and of being cast from society. The one thought that, as soon as recognized, one's existence would be lost, and he would be cast away from all, is as terrible as any thought can be. Then all the good that one had ever done would be forgotten ; then, in the pride of his great morality, every normal man would be moved to scorn, even though he himself had been never so frivolous in his own love.

"Then what does our misery amount to ? We may, cursing man, end our unhappy lives. Truly, I often long for the quiet of an asylum. My life may end when it will, the quicker the better ; I am ready.

"To refer to one more point : I also believe, like the others that have written to you, that our nervousness is first acquired as a result of our unhappy, unspeakably miserable life among our fellow-creatures.

"And still another : You write, at the conclusion of your work, concerning the repeal of the legal enactments concerned. Indeed, humanity would not be destroyed if they were repealed. In Italy there is no such law, as far as I know ; and Italy is not a wilderness, but a cultivated nation.

"As for myself, compelled as I am to undermine my life by onanism, the law could not touch me ; for I have never sinned against it in a letter. But, at the same time, I suffer under the accursed scorn to which we are subjected. How can the ideas of society be changed, so long as there is a law which strengthens it in its immorality ? The law must, of course, correspond with public opinion ; but it should not be in harmony with the erroneous opinion of ignorance, but only in accord with the ideas of the best and most scientific thinkers,—not with the wish and prejudice of the vulgar. True thinking minds cannot much longer be satisfied with the old idea.

"Pardon me, Professor, if I close without a signature. Do not try to find me. I could tell you nothing more. I give you these lines in the interest of future sufferers. Publish from them, in the interest of science, truth, and justice, what seems to you to be necessary."

Case 115. On a summer evening, at twilight, X. Y., a physician of a city in North Germany, was detected by a watchman while committing a misdemeanor with a countryman in a field. He was practicing masturbation on him, and then *mentulam alius in os suum immisit*. X. escaped legal prosecution by flight. The authorities dismissed the complaint, because there had been no publicity, and because *immissio membra in anum* had not taken place. Among X.'s effects was found an extensive

correspondence of a perverse sexual character, which showed that he had had perverse intercourse for years with all classes of people.

X. came of a neurotic family. His paternal grandfather died by suicide while insane. His father was a weak, peculiar man. One brother masturbated at the age of two. A cousin was sexually perverse, and practiced perverse acts, similar to those of X., while a youth; he became weak-minded, and died of spinal disease. A paternal great-uncle was an hermaphrodite. His mother's sister was insane. His mother is said to have been healthy. X.'s brother is nervous and irascible.

X., likewise, was nervous as a child. The mewing of a cat would create great fear in him; and if one but imitated the voice of a cat, he would cry bitterly, and run to others for protection. Slight physical disturbance caused violent fever. He was a quiet, dreamy child, of excitable imagination, but of slight mental capabilities. He did not indulge much in boyish games; he preferred feminine pursuits. It gave him especial pleasure to curl the hair of the house-maid or of his brother.

At thirteen X. went to an Institute. There he practiced mutual masturbation, seduced his comrades, and, by his cynical conduct, made them unmanageable; so that he had to be taken home. At that time the parents found love-letters with lascivious contents, showing perverse sexuality. From the age of seventeen he studied under the strict surveillance of a professor in a Gymnasium. He made but sad progress in learning. He had only a talent for music.

After finishing his studies, the patient entered the University, at the age of nineteen. There he attracted attention by his cynical character and his association with young persons who were thought to be given to masculine love. He began to be dandified; wore striking cravats, and shirts that were low cut; he forced his feet into narrow shoes, and curled his hair in a remarkable way. This peculiarity disappeared when he left the school, and had returned home.

At the age of twenty-four he was for a long time neurasthenic. From that time until his twenty-ninth year, he was earnest and skillful in his profession; but he avoided the society of the opposite sex, and constantly associated with men of doubtful character.

The patient would not allow a personal examination. In writing, he made the excuse for this that it would be of no use, because his impulse to his own sex had existed from his earliest childhood, and was congenital. He had always had horror feminæ, and had never been inclined to avail himself of the charms of women. Toward men he felt himself in the *rôle* of a man. He recognized his impulse toward his own sex as abnormal, and excused his sexual indulgence as being the result of an abnormal natural condition.

Since his flight X. lives out of Germany, in Southern Italy, and, as I learned from a letter, now, as before, he indulges in perverse love. X. is an earnest, stately man, of masculine features, well-grown beard, and

normally developed genitals. Dr. X. furnished me, a short time ago, with his autobiography, of which the following is worthy of mention:—

“ When, at the age of seven, I entered the private school, I felt very uncomfortable, and found very little sympathy with my companions. Only toward one of them, who was a very handsome child, did I feel attracted, and I loved him wildly. In childish games I always knew how to arrange it so that I could appear in feminine attire; and my greatest pleasure was to form intricate coiffures for our servant-girls. I often regretted that I was not a girl.

“ My sexual instinct awakened when I was thirteen, and from the moment of its appearance was directed toward youthful, strong men. At first I was not really certain that this was abnormal, but consciousness of it came when I saw and heard how my companions were characterized sexually. I began to masturbate at the age of thirteen. At seventeen I left home and went to the Gymnasium of a large Capital, where I was put to board with a married professor of the Gymnasium, with whose son I afterward had sexual relations. It was with him that I first had sexual satisfaction. Thereafter I made the acquaintance of a young artist, who very soon noticed that I was abnormal, and confessed to me that he was in the same condition. I learned from him that this abnormality was very frequent; and this knowledge overcame the trouble that I had had in supposing that I was alone in my abnormality. This young man had an extensive acquaintance with persons in like condition, to which he introduced me. There I became the object of general attention, for on all sides I was declared to be very attractive physically. I soon became insanely loved by an old gentleman; but, not finding him to my taste, I endured him but a short time, and then gave ear to a young and handsome officer who lay at my feet. He was really my first love.

“ After passing my final examination, at the age of nineteen, free from the discipline of school, I made the acquaintance of a great number of people like myself, and among them Karl Ulrichs (Numa Numantinus).

“ When, later, I took up the study of medicine, and associated with many normal youths, I was often in a position where I was compelled to visit public prostitutes. After having consorted to no purpose with various prostitutes, some of whom were very beautiful, the opinion was spread among my acquaintances that I was impotent, and I strengthened this by telling of previous sexual excesses. At that time I had numerous external relations with persons who prized my physical peculiarities, which were considered very beautiful. The result of this was, that I was exciting somebody all the time; and I received such a mass of love-letters that I was often in embarrassment. The acme of this was reached later, when, as a physician, I lived in the hospital. There I moved about like a celebrated person, and the scenes of jealousy that took place, on my

account, almost led to the discovery of the whole thing. Shortly after this, I fell ill with an inflammation of my shoulder-joint, from which I recovered after three months. During this illness I received subcutaneous injections of morphine several times daily, which were suddenly discontinued, and which I practiced thereafter secretly after my recovery. For the purpose of special study, I spent some months in Vienna, before entering into private practice, and there, by means of some recommendations, I gained entrance to various circles of people like myself. I there learned that the abnormality in question, in its various forms, is spread through the lower classes as well as the higher, and that those who are approachable for money are not infrequently met among the higher classes.

" When I established myself in the country, I hoped to cure myself of the morphine habit by means of cocaine; and then I became a victim of cocaine, which, only after three relapses, I was able to rid myself of (about two years ago). In my position, it was impossible for me to find sexual satisfaction, and I noticed with pleasure that the use of cocaine had overcome my desire. When, on the first occasion, at the urgent request of my aunt, I had emancipated myself from cocaine, I traveled for a few weeks, in order to improve my health, the perverse impulses were again awakened in their old strength, and, one evening, while out in the fields by the city amusing myself with a man, I noticed that I had been detected by the authorities and advertised; but that the act of which I was accused was not punishable, in accordance with the opinion expressed by the highest court of the German kingdom. I had, therefore, to be careful; for already the announcement of the crime had been heralded on all sides. I saw that, after this, I would be compelled to leave Germany, and find a new home where neither the law nor public opinion would be opposed to that impulse, which, like all abnormal instincts, could not be overcome by the will. Since I was never deceived for a moment about the matter, in recognizing my impulses as opposed to social usages, I repeatedly attempted to become master of them; but by these efforts they were increased in power. This same observation has been communicated to me by acquaintances. Since I was exclusively drawn toward strong, youthful, and masculine individuals, and they were very seldom inclined to yield to my wishes, I was compelled to buy them. Since my desire was limited to persons of the lower classes, I was always able to find such as were purchasable with money. I hope that the following statements will not awaken your repugnance. At first I intended to omit them; but, for the completeness of this communication, I may include them, since they serve to enrich the clinical material. I am compelled to perform the sexual act in the following way:—

" *Pene juvenis in os recepto, ita ut commovendo ore meo effecerim, ut is quem cupio, semen ejaculaverit, sperma in perinæum exspuo, femora comprimi jubeo et penem meum adversus et intra femora compressa*

immitto. Dum hæc flunt, necesse est, ut juvenis me, quantum potest, amplectatur. Quæ prius me fecisse narravi, eandem mihi afferunt voluptatem, acsi ipse ejaculo. Ejaculationem pene in anum immittendo vel manu terendo assequi, mihi nequaquam amœnum est.

“ Sed inveni, qui penem meum receperint atque ea facientes, quæ supra exposui, effecerint, ut libidines meæ plane sint saturatæ.

“ Concerning my person, I must still mention the following : I am 186 centimetres tall, of masculine appearance, and, with the exception of abnormal irritability of the skin, healthy. My hair and beard are black and thick. My genitals are of medium size and normally formed. I am able, without any trace of fatigue, to perform the sexual act from four to six times in twenty-four hours. My life is very regular. I use alcohol and tobacco very sparingly. I play the piano quite well, and some of my unpretentious compositions have been much applauded. I have lately finished a novel, which, as my first work, has been very favorably criticised by my friends. The story has several problems taken from the life of urnings in the subject-matter.

“ Among the large number of fellow-sufferers that are personally known to me, I have naturally been in a position to make observations concerning the condition and the degrees of abnormality ; and, perhaps, the following communications may be of service to you :—

“ The most abnormal thing that I am acquainted with, was the impulse of a gentleman who lived in Berlin. He preferred, above all others, young fellows with unwashed feet, which he would lick passionately. A gentleman in Leipzig was similar to him ; who, where it was possible, would linguam in anum immittere, preferring the parts to be uncleansed. Several have assured me that the sight of riding-boots or of parts of military uniforms, induced such excitement in them that ejaculation resulted. A man in Paris compelled a friend ut in os ei mingat.

“ With reference to the degree in which many feel themselves as women, which is with me not the case, two persons in Vienna are examples. They bore feminine names. One is a barber who calls himself ‘ French Laura ’; the other was formerly a butcher, who calls himself ‘ Selcher-Fanny.’ Both of them never missed an opportunity, during the carnival time, to show themselves in very fantastic feminine masks. In Hamburg there is a person that many people believe to be a woman, because he always goes about the house in feminine attire, and only occasionally leaves the house, and always in such clothing. This man wished to stand as godmother at a christening, and, as a result of it, gave rise to great scandal.

“ Feminine timidity, frivolity, obstinacy, and weakness of character, are the rule in such individuals.

“ Several cases of perverse sexuality are known to me where epilepsy and psychoses are present. Hernias are remarkably frequent. In practice many persons come to me to be treated for diseases of the anus,

because of recommendation by friends. I saw two syphilitic and one local chancre, and several fissures; and at present I am treating a gentleman for condylomata of the anus, which form a rounded tumor as large as a fist. One case of primary affection of the soft palate I saw in Vienna, in a young man who was accustomed to frequent mask-balls dressed as a girl, and entice young men; he would then pretend that he was menstruating, and thus induce the others to use him *per os*. The assertion was made that in this way he had deceived fourteen men in one evening. Since, in none of the publications concerning contrary sexuality that I have seen, I have found anything concerning the intercourse of pederasts among themselves, I venture to communicate something concerning it in conclusion:—

“As soon as individuals that are affected with contrary sexuality become acquainted, there is a detailed narration of their experiences, loves, and seductions, as far as the social difference between them allows such entertainment. Only in very few cases is this amusement uncommon with new acquaintances. Among themselves, they call themselves ‘aunts’; in Vienna, ‘sisters’; and two very masculine public prostitutes in Vienna, whom I accidentally became acquainted with, and who lived in a perverse sexual relation with each other, told me that for the corresponding condition in women the name ‘uncle’ was used. Since becoming conscious of my abnormal instinct, I have met thousands of such individuals.

“Almost every large city has some meeting-place, as well as a so-called promenade. In smaller cities there are relatively few ‘aunts,’ though in a small town of 2300 inhabitants I found eight, and in one of 7000 eighteen of whom I was absolutely sure,—to say nothing of those whom I suspected. In my own town of 30,000 inhabitants, I personally know about one hundred and twenty ‘aunts.’ The greater number of them, and I especially, possess the capability of judging another immediately as to whether they are alike or not, which, in the language of the ‘aunts,’ is called ‘reasonable’ or ‘unreasonable.’ My acquaintances are often astounded at the certainty of my judgment. Individuals that are apparently absolutely masculine I recognize as ‘aunts’ at the first sight. On the other hand, I am able to behave myself in such a masculine way that, in circles to which I have been introduced by acquaintances, there is a doubt as to my genuineness. When I am in the mood, I can act exactly like a girl.

“Since the majority of ‘aunts,’ like myself, in no way regret their abnormality, but would be sorry if the condition were to be changed; and, moreover, since the congenital condition, according to my own and all other experience, cannot be influenced; therefore, all our hope rests upon the possibility of a change of the laws with reference to it, so that only rape or the commission of public offense, when this can be proved at the same time, shall be punishable.”

Case 116. *Contrary Sexual Instinct in a Woman.*—S. J., aged 38, governess, came to me for advice about a nervous trouble. Her father was temporarily insane, and died of a brain disease. The patient is an only child, and even when quite young she suffered with feelings of anxiety and painful ideas. She thought, for example, that she would awake in her coffin after it had been closed; that at confession she might forget something, and make a sinful confession. She suffered much with headache. She was always very much excited and apprehensive, but yet she had to see horrible things, like corpses, etc.

Even in her earliest childhood, the patient was excited sexually, and began to masturbate without any teaching. The menses began at fourteen, and were always accompanied by colicky pains, violent sexual excitement, migraine, and depression. After her eighteenth year she learned to repress her impulse to masturbate.

The patient has never felt any inclination toward persons of the opposite sex. If she thought of marriage, it was only because she sought in matrimony a means of being supported. On the other hand, she felt powerfully attracted by girls. At first she regarded this inclination as friendship; but in the depth of her attachment to female friends, and in the longing she constantly felt for them, she recognized that the feeling was something more than friendship.

The patient cannot understand how a girl can love a man, but she can easily see how a man might love a girl. She always has a lively interest in beautiful women and girls, and is powerfully excited at sight of them. Her longing had always been to kiss and embrace such dear creatures. She had never dreamed of a man, but only of girls. Her delight had been to revel in the sight of them. Separation from such female friends had always made her desperate.

The patient, whose appearance is perfectly feminine and very respectable, states that she has never felt herself in any particular rôle with her friends, not even in dreams. Female pelvis; large mammae; no sign of beard.

Case 117. Mrs. R., Russian, aged 35, of high social position, was brought to me, in 1886, by her husband for advice.

Father was a physician, and very neuropathic. Paternal grandfather was healthy and normal, and reached the age of ninety-six. Facts concerning paternal grandmother are wanting. All the children of father's family are said to have been nervous. The patient's mother was nervous, and suffered with asthma. The mother's parents were healthy. One of the mother's sisters had melancholia.

From her tenth year patient has been subject to habitual headache. With the exception of measles, she has had no illness. She was capable, and enjoyed the best of training, having especial talent for music and languages. It became necessary for her to prepare herself for the work of a governess, and during her earlier years she was mentally overworked.

She passed through an attack of melancholia *sine delirio*, of some months' duration, at seventeen. The patient asserts that she has always had sympathy only for her own sex, and found only an æsthetic interest in men. She never had any taste for female work. As a little girl, she preferred to play with boys.

She says she remained well until her twenty-seventh year. Then, without external cause, she became depressed and considered herself a bad, sinful person, had no pleasure in anything, and was sleepless. During this time of illness she was also troubled with imperative conceptions: that she must think of the death of herself and her relatives. Recovery after about five months. She then became a governess, was overworked, but remained well, except for occasional neurasthenic symptoms and spinal irritation.

At twenty-eight she made the acquaintance of a lady five years younger than herself. She fell in love with her, and her love was returned. The love was very sensual, and satisfied by mutual masturbation. "I loved her as a god; her's is a noble soul," she said, when she mentioned this love-bond. It lasted four years, and was ended by the (unfortunate) marriage of her friend.

In 1885, after much emotional strain, the patient became ill with symptoms of hystero-neurasthenia (dyspepsia, spinal irritation, and tonic spasmodic attacks; attacks of hemiopia with migraine and transitory aphasia; pruritus pudendi et ani). In February, 1886, these symptoms disappeared.

In March she became acquainted with her present husband, and married him without taking much time for reflection; for he was rich, much in love with her, and his character was in sympathy with her own.

On April 6th, she read the sentence, "Death misses no one." Like a flash of lightning in a clear sky, the former imperative conceptions of death returned. She was forced to meditate on the most horrible manner of death for herself and those about her, and constantly imagine death-scenes. She lost rest and sleep, and took no pleasure in anything. Her condition improved. Late in May, 1886, she was married, but was still troubled by painful thoughts at that time: that she would bring misfortune on her husband and those about her.

First coitus on June 6, 1886. She was deeply depressed morally by it. She had had no such conception of matrimony. The husband, who really loved his wife, did all he could to quiet her. He consulted physicians, who thought all would be well after pregnancy. The husband was unable to explain the peculiar behavior of his wife. She was friendly toward him, and suffered his caresses. In coitus, which was actually carried out, she was entirely passive, and after the act she was tired, exhausted all day long, nervous, and troubled with spinal irritation.

A bridal tour brought about a meeting with her old friend, who had lived in an unhappy marriage for three years. The two ladies trembled

with joy and excitement as they sank into each other's arms, and became inseparable. The husband saw that this friendly relation was a peculiar one, and hastened their departure. He had an opportunity to ascertain, through the correspondence of his wife with this friend, that the letters interchanged were like those of two lovers.

Mrs. R. became pregnant. During pregnancy the remains of depression and imperative ideas disappeared. In September, during about the ninth week of pregnancy, abortion took place. After that, renewed symptoms of hystero-neurasthenia. In addition to this, there were anteflexio et latero-positio dextra uteri, anaemia, and atonia ventriculi.

At the consultation the patient gave the impression of a very neuropathic, tainted person. The neuropathic expression of the eyes cannot be described. Appearance entirely feminine. With the exception of a very narrow, arched palate, there was no skeletal abnormality. With difficulty the patient could be brought to give the details of her sexual abnormality. She complained that she had married without knowing what marriage between men and women was. She loved her husband dearly for his mental qualities, but marital intercourse was a pain to her; she did it unwillingly, without ever finding any satisfaction in it. Post actum, all day long she was weary and exhausted. Since the abortion and the interdiction of sexual intercourse by the physicians, she had been better; but she thought of the future with horror. She esteemed her husband, and loved him mentally; but she would do anything for him, if he would but avoid her sexually in the future. She hoped to have sensual feeling for him in time. When he played the violin, she seemed to feel the beginning of an inclination for him that was something more than friendship; but it was only transitory, and she could get no assurance for the future in it. Her greatest happiness was in correspondence with her former lover. She felt that this was wrong, but she could not give it up; for to do so made her miserable.

It is remarkable that the anomaly may be long limited to mere perversion of the sexual instinct, and that the impulse to perverse indulgence may make its appearance after some accidental cause,—e.g., seduction, or some neurosis. Such cases might easily be mistaken for acquired contrary sexual instinct (*v. supra*), if, with reference to the sexual feeling, they should not be demonstrated by the history to be original and congenital.

Case 118. Mrs. C., aged 32, wife of an official, a large, not uncomely woman, feminine in appearance, comes of a neuropathic and emotional mother. A brother was psychopathic, and died of drink. Patient was always peculiar, obstinate, silent, quick-tempered, and eccentric. The

brothers and sisters are excitable people. Pulmonary phthisis has been frequent in her family. When only a girl of thirteen, with signs of great sexual excitement, she attracted attention by enthusiastic love for a female friend of her own age. Her education was strict, though the patient secretly read many novels, and wrote innumerable poems. She married at eighteen to free herself from unpleasant circumstances at home.

She says she has always been indifferent toward men. In fact, she avoided balls. Female statues pleased her. Her greatest happiness was to think of marriage with a beloved woman. She was not aware of her sexual peculiarity until marriage, and the thing had remained inexplicable to her. Patient did her marital duty, and bore three children, two of whom were subject to convulsions. She lived pleasantly with her husband, but she esteemed him only for his moral qualities. She gladly avoided coitus. "I should have preferred intercourse with a woman."

Until 1878 she had been neurasthenic. On the occasion of a sojourn at a watering-place, she made the acquaintance of a female urning, whose history I have reported as Case 6, in the *Irrenfreund*, No. 1, 1884.

The patient came home a changed person. Her husband says: "She was no longer a woman, no longer had any love for me and the children, and would have no more of marital approaches. She was inflamed with passionate love for her female friend, and had taste for nothing else." After the husband forbade her lover the house, there was interchange of letters with such expressions in them as "My dove! I live only for you, my soul." There were meetings and frightful excitement when an expected letter did not come. The relation was in nowise platonic. From certain indications it is presumable that mutual masturbation was the means of sensual satisfaction. This relation lasted until 1882, and made the patient decidedly neurasthenic.

She absolutely neglected the house, and her husband hired a woman of sixty years as a house-keeper, and also a governess for the children. The patient fell in love with both, who, at least, allowed caresses, and profited materially through the love of their mistress.

In the latter part of 1883, on account of developing pulmonary tuberculosis, she had to go south. There she became acquainted with a Russian lady of forty years, and fell passionately in love with her; but she did not meet with a return of love in her sense. One day insanity became manifest. She thought the Russian lady a nihilist; that she was magnetized by her; and she presented formal persecutory delusions. She fled, and was caught in an Italian city, and placed in a hospital, where she soon became quiet. Again she followed the lady with her love, felt herself very unhappy, and planned suicide.

When she returned home, she was greatly depressed because she did not have the lady, and was contrary toward her family. A delusive, erotic state of excitement came on about the end of May, 1884. She danced,

shouted, and called herself a man ; demanded her former lovers, and said she was of royal blood. She escaped from the house in male attire, and was taken to the asylum in a state of eroto-maniacal excitement. After a few days the exaltation disappeared. The patient became quiet, and made a despairing attempt at suicide ; and after it she was in great anguish of mind with *tedium vitæ*. The perverse sexual feeling grew less and less noticeable, and the tuberculosis progressed. The patient died of phthisis in the beginning of 1885.

The examination of the brain presented nothing unusual as far as architecture and arrangement of convolutions were concerned. Weight of brain 1150 grammes. Skull slightly asymmetrical. No anatomical signs of degeneration. External and internal genitals without anomaly.

3. *Effemination and Virginity*.—There are various transitions from the foregoing cases to those making up this category, characterized by the degree in which the psychical personality, especially in general manner of feeling and inclinations, is influenced by the abnormal sexual feeling. In this group, fully-developed cases in men are females in feeling ; in women, males. This abnormality of feeling and of development of the character is often apparent in childhood. The boy likes to spend his time with girls, play with dolls, and help his mother about the house ; he likes to cook, sew, knit, and develops taste in female *toilettes*, so that he may even become the adviser of his sisters. As he grows older he eschews smoking, drinking, and manly sports, and, on the contrary, finds pleasure in adornment of person, art, *belles-lettres*, etc., even to the extent of giving himself entirely to the cultivation of the beautiful. Since women possess corresponding inclinations, he prefers to move in the society of women.

If he can assume the rôle of a female at a masquerade, it is his greatest delight. He seeks to please his lover, so to speak, by studiously trying to represent what pleases the female-loving man in the opposite sex,—sweetness, sympathy, taste for æsthetics, poetry, etc. Efforts to approach the female appearance in gait, attitude, and style of dress are frequently seen.

The female urning, even when a little girl, presents the reverse. Her favorite place is the play-ground of boys. She seeks to rival them in their games. The girl will have nothing to do with dolls ; her passion is for playing horse, soldier, and

robber. For female employments there is manifested not merely a lack of taste, but often unskillfulness in them. The *toilette* is neglected, and pleasure found in a coarse, boyish life. Instead of an inclination for the arts, there is manifested an inclination and taste for the sciences. Occasionally there may be attempts to smoke and drink. Perfumes and cosmetics are abhorred. The consciousness of being born a woman, and, therefore, of being compelled to renounce the University, with its gay life, and the army, induces painful reflections.

In the inclinations of the amazon for manly sports, the masculine soul in the female bosom manifests itself; and not less in the show of courage and manly feeling. The female urning loves to wear her hair and have her clothing in the fashion of men; and it is her greatest pleasure, when opportunity offers, to appear in male attire. Her ideals are historical and contemporary feminine personalities distinguished for mind and energy.

With reference to the sexual feeling and instinct of these urnings, so thoroughly permeated in all their mental being, the men, without exception, feel themselves to be females; the women feel themselves to be males. Thus they feel themselves to be antagonistic to persons of their own sex constituted like themselves; for, of course, they are like them in form. But, on the other hand, they are drawn toward those of their own sex that are homo-sexual or sexually normal. The same jealousy which occurs in normal sexual life also occurs here, when rivalry is threatened; and, indeed, since they are, as a rule, hyperæsthetic sexually, this jealousy is often boundless.

In cases of completely-developed contrary sexuality, heterosexual love is looked upon as a thing absolutely incomprehensible; sexual intercourse with a person of the opposite sex is unthinkable, impossible. Such an attempt brings on the inhibitory concept of disgust or even horror, which makes erection impossible. Only two of my transitional cases to the third category were able, with the help of their imagination, by thinking of themselves as men with reference to the woman, to have cohabitation; but the act, which was inadequate for them, was a great sacrifice, and afforded them no pleasure.

In homo-sexual intercourse the man always feels himself, in the act, as a woman ; the woman, as a man. The means of indulgence, in the case of a man, where there is irritable weakness of the ejaculation centre, are simply *succubus*, or passive *coitus inter femora* ; in other cases, passive masturbation, or *ejaculatio viri dilecti in ore proprio*. Many have a desire for passive pederasty ; occasionally a desire for active pederasty occurs. In one attempt of this kind, the man desisted because of the disgust which seized him when the act reminded him of coitus.

There was never inclination for immature persons (boy-love). Not infrequently there were only platonic desires. The sexual satisfaction of the female probably consists of *amor lesbicus*, or active masturbation.

Case 119. *Autobiography.* "1. *Descent:* I am now in my twenty third year. I have chosen the study of the technical arts as an occupation, and am completely satisfied with it. I had but the mild diseases of children, while the other children, who are now healthy, had to pass through severe illnesses. My parents are both living, and my father is an advocate. He, like my mother, is, as we say, nervously hyper-sensitive. In my father's family there were two other children, who died early.

"2. *My person:* As for my physical peculiarities, I am of robust figure, without being of especially handsome form ; eyes, gray ; hair, blonde ; hair and beard correspond with my sex and years. The mammae and genitals are normally developed. My gait is firm and almost heavy ; my bearing, careless. It is remarkable that the breadth of the pelvis is exactly equal to that of the shoulders.

"I am naturally well endowed mentally. In one of my certificates my talents are, in fact, called 'excellent.' Without any particular desire to excel in them, I passed my examinations with distinction. I have an interest in everything that concerns the well-being of humanity, and in science, art, and industry. With my energy it is comparatively easy to postpone for a time the satisfaction of my desires, which will be described hereafter. Intentionally and consciously, I curse the morality of to-day, which forces those who are abnormal sexually to break laws that are voluntarily established, and regards sexual congress of two persons of the same sex as a matter depending on the choice of the individual, and a matter in which law-makers have a right to interfere. From my studies I have found the most earnest incentives to construct, on the basis of the Darwinian theory, after Carneri's method, a system of morals, which, to be sure, does not harmonize with the prevailing system, but which seeks to elevate and improve mankind in accordance with natural law.

"I think that there are not many marks of hereditary taint in me. There is a certain hyper-sensitiveness. A very intense dream-life is perhaps important. In general, it is occupied with indifferent matters, and never has so-called sensual images as a subject; at most, in this direction, it is concerned only with female attire and putting it on, which for me is a lustful thought. At the same time, until my sixteenth year, it often went to the extent of somnambulism, or, very frequently, as is still often the case, to loud talking in sleep.

� "3. *My inclinations:* The above-mentioned abnormal proclivity is the fundamental factor in my sexual feeling. When I am dressed like a woman, I feel perfectly satisfied. A peculiar feeling of peace and comfort comes over me, which allows me to work mentally with greater ease. My libido for indulgence in sexual intercourse is extremely slight. Too, I have much love and taste for female handiwork, and, without assistance, I learned to crochet and embroider, and I like to do these things in secret. I also like other female employments, like sewing, etc.; so that at home, where I keep my proclivity perfectly concealed, and guard against indulging it by involuntary activity, I have often won the praise of being as good as a servant-girl; which did not make me ashamed, but, on the contrary, filled me with secret pride. I can make nothing out of dancing with women; I liked to dance only with my school-fellows, for which the manner of our instruction in dancing gave opportunity. But in this it gave me pleasure only when I could dance as a lady. A multitude of other desires and dreams, which seem to have something typical about them, I pass over, because they seem exactly similar to those described in 'Psychopathia Sexualis.' In other respects my inclinations are not different from those of my sex. I smoke and drink moderately, love delicacies, and have no pleasure in physical exercises.

"4. *Development:* After this brief description of my personality, I may pass on to an analysis of the developmental history of my abnormality. As soon as I was able, to some extent, to think independently, and I understood the difference between the sexes, it was my secret and fixed desire to be a girl. In fact, I believed I was one. But when in the bath I saw the same genitals on other boys, the impossibility of my thought became apparent. I reduced my wish, and hoped that I was at least an hermaphrodite. And, owing to the fact that I had a certain shyness about looking closely at pictures or descriptions of the genitals, this hope was entertained, notwithstanding the fact that I had abundant opportunity to read writings on the subject, until my studies compelled me to make a closer acquaintance with the matter. During this time I read everything I could get about hermaphroditism, and longed to be in the place of the female who, as the newspapers often reported, had been raised as a male and been restored to her sex by accident. The recognition of my masculinity made an end of this dreaming, and did not fill me with any especial delight. I tried to destroy my sexual glands by

gradual pressure, but pain soon caused me to desist. My longing is still for the external characteristics of the female sex,—for a pretty coiffure, a rounded breast, a slim waist.

"At the age of twelve I first had an opportunity to put on female attire; and I soon came to drape myself, by means of bed-clothes, bed-linen, etc., with female petticoats. When I grew older, it was my greatest delight to put on my sister's dresses secretly, even if it could be but for a few moments, and with constant danger of detection. Later, much to my delight, I had an opportunity to play a female rôle in a love-scene; and it is said that I was not at all bad in the part. When I began to lead an independent life as a student, I immediately obtained female dresses and linen, which I kept in order myself. When at night, safe from discovery, I can put on one article after another, from corset to apron and bracelet, I am perfectly satisfied, and devote myself to some quiet employment, inwardly happy and full of delight in doing it. While dressing, an erection usually occurs, but it is never followed by an ejaculation, and soon disappears. I also try to approximate the female appearance in externals, by arranging my hair appropriately and removing the beard, which I should have preferred to tear out.

"5. *Sexual inclinations:* In passing to the description of my sexual proclivities, I desire, first, to note, in general, that puberty occurred normally, as I judge from the pollutions that occurred, the change of voice, etc. Pollutions still occur regularly once every three weeks, seldom more frequently. With them I never experience any lustful feeling. I have never practiced onanism; until lately I knew nothing more of it than its name, and I had to seek direct information about it, in order to understand it. Any touch on the erect penis is disturbing and painful to me, and without lustful feeling.

"Previously I behaved very shyly toward women, but I now act quietly, and associate with them as with my kind. Direct excitation, in a sexual sense, by a woman, sometimes occurred; but when I try to analyze this, it seems to me that it was never her person, but rather her attire alone, that was effectual. I fell in love with her dress, and the thought of wearing one like it was heavenly. Thus sexual excitation never took place, not even in brothels where I was led by friends, in spite of the sight of the greatest voluptuousness and beauty. But friendly feelings for the female sex were in my heart. I imagined how, dressed as a woman and unrecognized, I could stay with them, associate with them, and take pleasure with them. I prefer the impression made on me by girls whose breasts have not yet fully developed, particularly those wearing the hair short; for such girls are more nearly like me and my aspect. Once I was so fortunate as to find a girl who felt unhappy in her sex. We formed a firm bond of friendship with one another, and we often took delight in the idea of exchanging places. Perhaps it is not inappropriate or unimportant for the characterization, to record the following: Some

months ago, when the story was running through the newspapers of an Hungarian countess who, dressed as a man, had married, and felt like a man, in all earnestness, I thought of offering myself to her, in order to contract an inverted marriage,—she as husband, I as wife. . . . I have never attempted coitus, and have never felt any desire for it. But since I foresaw that the erection necessary with a woman would be wanting, I thought of putting on some of her clothing; and I think that then the expected result would occur.

"As for my behavior toward male persons, first of all, it is to be emphasized that I had the warmest friendships during my school-days. My heart was full of happiness, if I could do some small service for the object of my devotion. I really worshiped him passionately. But, on the slightest occasion, I evinced terrible jealousy; and while my anger lasted I felt as if I could neither live nor die. When reconciliation occurred, for a short time I was the happiest of creatures. I also tried to make friends of boys, whom I bribed with sweetmeats, and whom I should gladly have kissed. Though my love always remained platonic, yet it is abnormal. An expression that I unconsciously made at that time about an elder friend, whom I worshiped, shows that. I said I loved him so that I should have liked to marry him. And even now, when I indulge but little in intercourse, I am easily taken with a handsome man with a fine beard and refined features. Yet I have never met a being feeling like myself, whom I could confide in, and with whom I could live as a female friend. I never attempted to exercise my inclinations directly, and never committed any foolish act of this kind. Finally I ceased to visit museums where nude male figures were displayed; for the erections, which were sure to occur, were exceedingly annoying. I had often secretly wished to sleep with a man, and often found opportunity. I was asked by a rather unattractive elderly man to sleep with him. *Cum eo concubui, ille genitalia mea tetigit;* and though his person was unattractive to me, I was filled with an intense feeling of lust. I felt as if completely surrendered to him; in a word, *I felt like a woman.*

"If I may be permitted to add a concluding word to what I have already said, I wish to state expressly that, though I am conscious of the abnormality of my inclinations, I have no desire to change them; I long only for a time when, more easily and with less danger of discovery, I can give rein to my desires and experience a delight that will harm no one."

Case 120. Miss Z., aged 31, artist, comes for consultation on account of neurasthenic symptoms. She is remarkable for coarse, masculine features, a deep voice, short hair, a masculine style of dress, masculine gait, and self-consciousness. In other respects she is feminine, with well-developed mammae and a female pelvis, and without any indication of beard.

Examination with reference to contrary sexual instinct gives a positive result :—

The patient states that even when a little girl she preferred to play with boys, and particularly "soldier," "merchant," and "robber." She was very wild and unrestrained in these games with boys, but never had any proclivity for dolls or female employment, of which she learned only the most ordinary things (knitting, sewing).

In school she made good progress, being especially interested in mathematics and chemistry. She early had a desire for sculpture, and showed talent for it. Her greatest ambition was to become a real artist. In her dreams of the future, she never thought of marriage. As an artist, she was interested in handsome men, but she was really attracted only by female forms; she saw male forms only "in the distance." She could never endure "trumpery"; "manly dress" was all that pleased her. The ordinary society of girls was repugnant to her, because their talk about *toilettes*, ornaments, and love-affairs with men, seemed stale and tiresome to her. On the other hand, since her childhood she had had enthusiastic friendships with certain girls; at the age of ten she was in love with a girl companion, and wrote her name everywhere. Since then she had had numerous female friends, with whom she had indulged in passionate kissing. She pleased the girls, as a rule, because of her masculine bearing. She wrote poems to her female friends, and could have done anything out of love for them. To her it was very remarkable that she was embarrassed before girls, especially when they were friends. She could not undress before them. The more she loved a friend, the more modest she was before her.

At the present time she has such a relation. She kisses and embraces her Laura, walks by her window, and suffers all the pangs of jealousy, particularly when she sees her conversing with men. Her only wish is to live always with this female friend.

The patient states, however, that twice in her life men have made an impression on her. She thinks that if she had been really sought, there would have been a marriage; for she is very fond of family life and children. If a man wished to possess her, it would be necessary for him to win her; she herself would prefer to win a female friend. She thinks woman is more beautiful and ideal than man. In her infrequent erotic dreams, the subject had always been a female. She had never dreamed of men. She does not think that she could now love a man; for men are false, and she herself is nervous and anaemic.

She considers herself a woman in all respects, but regrets that she is not a man. Even at the age of four it had been her greatest pleasure to put on boys' clothes. She certainly had a masculine character, and, too, had never wept. Her greatest passion was for riding, gymnastics, fencing, and driving. She suffered much because no one about her understood her. It seemed silly to her to talk about feminine things.

Many of her acquaintances had thought that she should really have been a man.

The patient says that she was never sensual. In embracing female friends, she had often experienced a peculiar lustful feeling. Embracing and kissing had been her only manner of expressing her friendship.

The patient states that she comes of a nervous father, and an insane mother who, as a young girl, had been passionately in love with her own brother, and had tried to induce him to flee with her to America. The patient's brother is a very eccentric, peculiar man.

The patient presents no external degenerative signs; head regular. She says the menses began at fourteen, and that they have been regular, but always painful.

Case 121. "In order to designate at once my unhappy diseased condition with its correct name, I will state at the beginning that it bears all the marks of what, in your work, 'Psychopathia Sexualis,' you have named *effemimation*.

"I am now thirty-eight years old, and, thanks to my abnormality, I look back on a life that has been full of indescribable suffering; so that I am often astonished to think what capacity for suffering a man has. Of late consciousness of the suffering I have endured has become the source of a kind of self-respect, which, in itself, makes my life, in a measure, endurable.

"But I shall now endeavor to describe my condition with all truth. I am physically healthy, and, as far as I can remember, have never had any severe illness. I come of a healthy family. But my parents are both of a very excitable nature, my father being of the so-called choleric, and my mother of the sanguine, temperament; she has a strong tendency to mild melancholia. She is a lively woman, loved for her good-heartedness and active benevolence; but she is still very dependent and deficient in self-confidence. All these peculiarities were marked in her father. I mention this fact, because I am told that I resemble them both; and as far as the last two peculiarities are concerned, I can myself acknowledge the resemblance. But when I made attempts, by means of my inner strength and by thinking of my own power, to rend the bond that, with magic force, draws me to men, there was always a residuum left that I could not eradicate. As far as I can remember, I have always had this elementary longing for a male lover. To be sure, its first expressions were of a coarse, sensual nature. I do not know whether I was yet ten years old, when, while lying in bed in the day-time, I suddenly discovered how, by pressure on my genitals, I induced a new and intoxicating feeling, while fancying that a man of my acquaintance performed sensual manipulations on me. It was only many years afterward that I learned that this was onanism. At first I was so frightened and so depressed by the inexplicableness of my longing, that I then made my first attempt at

suicide. If I had only put it into execution! For since then there has been such frequent violent agitation of mind and body that my heart has been bound as with a chain, and made cold. I may say at once that, up to the present time, onanism has not loosened me from its clutches; it has overcome all attempts and efforts to escape, and my desire to resist it is almost destroyed. Three or four times I have given it up for a month at a time, usually under the influence of mental excitement.

"When about thirteen, I had my first love. To-day it seems as if my greatest wish then was to kiss my school-fellow's fresh, rosy lips. It was a passion full of romantic dreams. At the age of fifteen or sixteen it became more violent, when I first experienced the insane pangs of a jealousy which is more terrible than that of natural love can be. This second period of my life lasted for years, though I spent but a few days with the object of my passion; and then we did not see each other for fifteen years. Gradually my feeling cooled, and I then fell passionately in love several times with other men, who, with the exception of one, were about my own age.

"My love—if you will kindly allow this expression for a feeling condemned by the majority of mankind—has never been returned; I have never had intercourse with a man in any way that would not bear the light of day; never has any one shown even extraordinary interest in me, though one of my friends discovered my secret longing; and yet I have had a burning desire for masculine love. In this longing my feelings seem to me to be entirely those of a loving woman; and I notice, with horror, that my sensual ideas grow more and more like those of a woman. During the periods when I am free from any particular love, my longing degenerates so that, in my onanistic manipulations, I conjure up only coarse, sensual ideas. But I am still finally able to overcome these. My efforts to repress the love, however, are absolutely vain. At the present time I am again suffering with such an exaggerated state of feeling that has existed for months; and I have pondered so much over its peculiarities that I think I can describe my feelings truthfully. In this way I have made the peculiar observation that I have never loved a bearded man. From this it might easily be presumed that I am given to so-called boy-love; but that is not the case. For, to the sensual charm, on closer association, a mental interest is added. With this begins the mental pain. I am seized with such a passionate longing that I am willing to sacrifice myself, in a way. I excite confidence in myself; and from this mutual feeling a heart-felt friendship might be engendered, if deep down in my soul were not sleeping the demon which impels me to the closest of relationships, which is allowed only between human beings of opposite sex. My whole being, every fibre of my body, longs for it, and I am consumed by a hot, glowing passion. I wonder that here I can again describe in unfeeling words the feelings that coursed through my whole being. Of course, by the struggle of years, I have been forced to learn

to conceal my inclination, and smile when torn by pain. For, in never having my love returned, I have learned to know all the sufferings of love. Jealousy—insane, blinding jealousy—of any and every body who casts but a friendly glance at the object of my secret love!

“I have emphasized the mental element, in order to show how deeply rooted my abnormal impulse is. I have never felt the slightest touch of sensual love for the opposite sex. The idea of being forced to associate sensually with women is repugnant to me. At times I have suffered enough on being assured of the love of young girls. Like every young man, I have had abundant opportunity to enjoy the modern social pleasures, dancing among them. I like to dance; but if I could dance with men, as a girl, I should be really happy.

“I wish once more to remark that my love is entirely sensual. How could I otherwise explain the fact that the pressure of my lover's hand, often merely his glance, causes palpitation and erection! I have done everything to eradicate this love from my—let us say ‘heart.’ I have tried to still it by means of onanism; to drag it in the mire, in order to raise myself above it. (About ten years ago, during such a time of love, I avoided onanism, and felt that my feeling of love elevated me.) I still entertain the delusion that if the object of my love were to tell me he loved me, that he loved me, and only me, I should willingly give up sensual gratification to repose in faithful arms. But that is certainly a self-deception.

“Honored sir, I have a responsible occupation, and I think I can give the assurance that my abnormal inclination has never, even in a hair's breadth, caused me to deviate from the duty imposed on me. Aside from this abnormality, I am not insane, and I might ultimately become contented; but I have, particularly of late years, suffered too much not to look on the future with painful feeling. For the future will certainly not bring fulfillment of the desire which constantly glows under the ashes,—the desire to possess a lover who understands and returns my love. Such a relation would make me truly happy. I have thought much about the origin of my abnormality, particularly because I think I am forced to assume that it was not inherited. I believe that onanism has changed the inborn feeling into a burning passion. I might long ago have put an end to my misery, since I have no fear of death, and since in religion—which, strange to say, has not departed from my impure heart—I find no warning against suicide. But the consciousness that I am not alone responsible, and that a worm has nipped my whole life in the bud,—a certain comfort that has sprung up of late out of indescribable suffering,—leads me to see whether comparative happiness in life cannot be obtained on an entirely new basis: something which fills the whole heart. I think I could be happy under the influence of quiet family life. But I dare not conceal from you the fact that the thought of married life with a wife is terrible to me, and that I make the

attempt of a change of life with a bleeding heart; for thus I absolutely abandon the hope that is always awake; namely, the delusion that fate may yet bring me the desired happiness.

"This delusion is so deeply rooted in me that I think nothing but hypnotic suggestion could help me. If you could advise me, you would make me unspeakably happy. Of course, your strictest injunction would be to abandon onanism. How gladly I would follow it! But if I were not to have direct physical, some mechanical, means at hand to help me, I should certainly be unable to free myself from this vice; and this the more, because I fear that, by long years of habit, my nature has become accustomed to it. Of course, I have not escaped the effects of it, even though they are not so terrible as they are often pictured. I suffer with mild nervousness, am, indeed, weakened, and have periodical disturbance of digestion; but I can still endure hard work, and take a certain pleasure in it, when it is not too great. I am depressed, but I can be happy, and, fortunately, I take pleasure in my calling, and am interested in various things, particularly music, art, and *belles-lettres*. I have never indulged in female pursuits.

"As may be seen from the foregoing, I like to associate with men, especially with those who are handsome; but I have never had intimate relations with them. A wide gulf separates me from them!"

"*Postscript:* I feared that in the foregoing I had not described my sexual life with sufficient exactness. It consists only in onanism; but in it I abandon myself to almost all the repugnant acts that are comprehended under coitus inter femora, ejaculatio in ore, etc.

"My rôle is passive. When I am seized by a passion, the ideas change, and become entirely a desire to be impregnated. The struggle against such a passion is so terrible, because my mind is also implicated. I long for the closest, the most complete union that can be conceived as existing between two men,—always together, common interests, unlimited confidence, sexual union. I think that natural love is different from this only in its degree of warmth; it does not reach the boiling-point of our passion. Just now I am fighting the battle over again; with force I stifle the insane passion that has so long enthralled me. All night long I walk about, followed by the image of him I love; for love of whom I would give up all I possess. How sad it is that the noblest feeling given to man—friendship—is sullied by common sensual feeling!"

"I wish once more to state that I cannot come to the determination to transform my sexual life by means of sexual intercourse with the opposite sex. The thought of such intercourse fills me with repugnance and disgust."

Case 122. "I write, as well as I can, the history of my suffering, actuated only by the desire, by this autobiography, to clear up to some

extent the misunderstanding and errors concerning 'contrary sexual instinct' which are still so widely prevalent.

"I am thirty-seven years old, and come of healthy parents, both of whom were very nervous. I only mention this, because I have often had the thought that my contrary sexual instinct came by way of inheritance; but this is nothing more than vague. Of my grandparents, whom I did not know, the only remarkable thing I can mention is, that my maternal grandfather was known as a great Don Juan.

"I was rather a weak child, and during my first two years suffered severely with fits, as a result of which my understanding and memory may have suffered; for I learn but slowly things which do not particularly interest me, and easily forget them. I may also mention that, during the time before I was born, my mother was subject to violent mental excitement, and was often frightened. From my third year I have been perfectly well, and have escaped severe illness. Only when a boy, from the age of twelve to sixteen, I had peculiar, indescribable nervous sensations, which made themselves felt in my head and finger-tips, and in which it seemed to me as if my whole being were about to cease. For many years, however, these attacks have ceased to occur. I am rather a powerful man, with abundant growth of hair, and in all respects masculine.

"Even when a boy of six years, I came independently to masturbate, and, until my nineteenth year, I practiced the vice quite persistently; and even now, *faute de mieux*, I quite frequently resort to it, notwithstanding the fact that I understand the vileness of the passion, and always feel somewhat weakened after it. But sexual intercourse with a man does not affect me in the least; on the contrary, it gives me a feeling of being strengthened. I began school at the age of seven, and soon experienced an intense feeling of sympathy for my companions, which, however, made no other impression on me. In the Gymnasium, at the age of fourteen, my companions explained to me the sexual life of man, which, up to that time, was absolutely unknown to me; but I was not much interested in the matter. At this time I also practiced mutual onanism with two or three friends who had seduced me into it; and it had an extraordinary charm for me. I was still perfectly unconscious of the perversity of my sexual instinct, and considered my vices as sins of youth, like those committed by all boys of the same age. Interest in the female sex I thought would come in time. Thus I became nineteen years old. During the following years I fell insanely in love three times,—once with a very handsome actor, then with a bank employé, and with one of my friends, the last two being men who were nothing less than beautiful, and calculated to excite sensual feeling. But this love was merely platonic, and occasionally found expression in glowing poetry. It was, perhaps, the most perfect period of my life; for I regarded everything with pure, innocent eyes. In my twenty-first year

I gradually began to notice that I was not constituted exactly like my comrades; for I found no pleasure in masculine pursuits. I had but little liking for smoking, drinking, and card-playing, and I was frightened to death by a brothel. I have never been in one; I was always able to avoid visiting one on some pretext or other. But I now began to think about myself; I often felt terribly lonesome, miserable, and unhappy, and longed for a friend constituted like myself, without, however, ever thinking that there could be other men like me. At twenty-two I made the acquaintance of a young man who finally explained to me contrary sexual instinct and the individuals affected with it. He, being also an urning, was in love with me. It was as if scales had fallen from my eyes; and I bless the day this explanation came to me. From that time I saw the world with different eyes; I saw that many others were given the same fate; and I began to learn to content myself with this lot as well as I could. Unfortunately, I did not succeed very well, and I am still often seized with bitterness and a deep hatred of the modern ideas which treat us poor urnings with such terrible harshness. For what is our fate? In most cases we are not understood, and are derided and despised; and even when all goes well, and we are understood, we are still pitied like invalids or the insane,—and pity was always sickening to me. I now began to play a part, in order to deceive my fellow-men as to my state of mind; and it always gave me great satisfaction to succeed in this. I made the acquaintance of several men like myself, with whom I established relations, which, however, never lasted long; for I was very fearful and cautious; but, at the same time, I was very particular and easily wearied.

"I have always absolutely despised pederasty as something unworthy a man, and I only wish that all those like me would do the same; but, unfortunately, with many this is not the case. If all like me thought as I do, then the contempt and scoffing of men that feel differently would be a still greater injustice to us than it now is.

"Toward the man I love I feel completely like a woman, and, therefore, in the sexual act I am quite passive. In general, my whole sensibility and feeling are feminine. I am vain, coquettish, fond of ornament, and like to please others. I love to dress myself beautifully, and, in cases where I wish to please, I even make use of the arts of the toilet, in which I am quite skilled.

"While I have but little interest in politics, I am passionately fond of music and an inspired follower of Richard Wagner. I have noticed this preference in the majority of us; I find that this music is perfectly in accord with our nature.

"I play the violin quite well; I like reading, and read much, but I have little interest in anything else. Everything else in life is quite indifferent to me, owing to the deep resignation that more and more takes possession of me.

"Even though I should have reason to be satisfied with my fate, in that I have an assured position in a technical employment in a large city of Germany, still I take no pleasure in my calling. I should be best suited if, independent and free, I could travel about with a handsome lover, and live for music and literature, particularly for the theatre, which seems to me to be one of the greatest pleasures. A connection with a court theatre I think of as being very acceptable.

"The only position or calling that seems really desirable to me is that of a great artist,—singer, actor, painter, or sculptor; and it seems to me that it would be even finer to be born to the throne of a king,—a wish that is in harmony with my pronounced desire for power. (If there is really such a thing as transmigration of souls, a subject I have studied much, and which seems to me to clear up much, I must have lived at one time as an emperor, or ruler of some kind.) But a man must be born to all this; and since I am not, I am without ambition for so-called social honors and distinctions.

"As to my tastes, I must mention a painful dissension there is in them. Handsome, intellectual young men of at least twenty years, who must be of my own social station, seem to me to be suited rather for platonic love; but with them I satisfy myself completely with a straightforward, though ideal, friendship, which seldom goes beyond a few kisses. But I can be excited sensually only by coarse, powerful men that are at least of my own age, and mentally and socially beneath me. The reason for this strange phenomenon may be that my pronounced feeling of shame and my innate apprehensiveness, with my cautious disposition, have the effect of an inhibitory idea with men of my own social position; so that with them it is with difficulty and seldom that I can induce sexual excitement in myself. That this diversity is painful to me is owing to the fact that I am always afraid to discover myself to these simple men, below me in station, who may often be bought with money. But I cannot imagine anything worse than a scandal, which would at once drive me to suicide. For I can think of nothing more terrible than, through some slight act of carelessness or the enmity of any man, suddenly to be branded before the world, and to be powerless to avert it. But what is it that we do that is so different from what normally constituted men can do, at least, quite as frequently without embarrassment, and without shame? That we do not feel as the crowd feels is not our fault, but a cruel trick of Nature.

"Innumerable times I have puzzled my brain to know whether science, or any of her free and unprejudiced devotees, could think of any way in which to give us step-children of Nature a more endurable position before the law and mankind. But I have always reached the same sad conclusion, that when one enters the lists in behalf of anything, he must first know thoroughly, and be able to explain, that for which he contends. And who is to-day able to perfectly explain and define con-

trary sexual instinct? Yet there must be some correct explanation of it; there must be some way in which the mass of mankind can be brought to a milder and more reasonable judgment of it; and, first of all, there must be some way to show that contrary sexual instinct should not be regarded as meaning the same as pederasty, as the majority of men—I may say all—regard it. By such an act a man might erect for himself an immortal monument in the gratitude of thousands of men of present and future generations; for there have been, are, and will ever be, urnings, and in greater number than perhaps has been suspected.

"In Wilbrand's work, 'Fridolin's Secret Marriage,' I find a very plausible theory given in explanation of this matter; for I myself have repeatedly had opportunity to observe that all urnings do not love men with the same intensity, but that there are innumerable sub-varieties,—from the most feminine man to the man of contrary sexuality who is equally sensitive to female charms. This may also account for the so-called difference between congenital and acquired contrary sexual instinct, which, in my inadequate opinion, does not exist. Yet, in all the fifty-five individuals I have become acquainted with in the three years since I came to understand this matter, I have met the same peculiarities of temperament, disposition, and character. Almost all of them are more or less idealists: they smoke but little, or not at all; they are bigoted, vain, desirous of admiration, and superstitious; and, unfortunately, I must confess that they combine more the defects and the reverse sides of both sexes than their good qualities. For woman in a sexual *rôle* I experience a feeling of true horror, which I could never overcome, even with the help of my extremely lively imagination. I have never attempted it, because I am thoroughly convinced of the fruitlessness of such an attempt, that seems to me unnatural and sinful.

"In purely social and friendly relations, I like to associate with ladies and girls, and I am gladly welcomed in ladies' society; for I am much interested in the fashions for ladies, and know how to talk of such things with great skill. When I wish to, I can be very gay and amiable; but my faculty for conversation is, for the most part, only assumed, and it always tires me. I have always had great skill in female work, and shown interest in it. As a child, and up to my thirteenth year, I was passionately fond of playing with dolls, whose clothes I made myself; and it still affords me much pleasure to work at beautiful embroidery, which, unfortunately, I can do only in secret. I have the same preference for knick-knacks, photographs, flowers, sweetmeats, toilet-articles, and such feminine things; and my room, which I arranged and decorated myself, is like the over-crowded boudoir of a lady.

"As particularly remarkable, I wish still to mention that I have never suffered with pollutions. I dream very much, and intensely, almost every night; occasionally I have lascivious dreams, which have only men as subjects, but I always wake out of them before it comes to

ejaculation. In reality I am not very passionate sexually, and I have periods lasting from four to six weeks, in which I have almost no sexual desire. Unfortunately, these periods are infrequent, and they are usually followed by an awakening of my intense sexual desire that is only the more violent; which, when it is unsatisfied, causes intense physical and mental suffering. I then become moody, depressed, sensitive, irritable, and retiring; peculiarities, however, which, with the first opportunity I have for sexual gratification, again disappear. I must mention, also, that often, on the slightest occasion, my mood may change several times during the day; it is like April weather.

"I dance well, and like to; but I love dancing only for its rhythmical movement, and because of my partiality for music.

"In conclusion, I wish to speak of something that always arouses repugnance in me. We are usually considered diseased, and that is absolutely incorrect. For in every disease there is a means of cure or amelioration; but no power in the world can take from an urning his perverse natural constitution. Even suggestion, which has been used with so much apparent success, cannot induce any enduring change in the mental life of an urning. In us, effect is mistaken for cause. We are considered diseased, because in time the majority of us really become ill. I am almost convinced that two-thirds of us, in later life, when we really live so long, have a mental defect of one kind or another; and this is only too easily explained. For, what strength of will and nerves is required for one to constantly dissimulate, lie, and play the hypocrite all his life! How often in the society of normal men, when the conversation turns to contrary sexual instinct, must one agree with the words of abuse and contempt, while every one of them wounds the heart. On the other hand, there are always the tiresome and indecent jokes and talk about women, etc., that must be heard; and which to-day, in so-called 'good society,' are popular—and to show interest and give attention to them! Daily and hourly to see so many handsome men to whom one cannot reveal himself; to be compelled to go without a friend, intercourse with whom we desire so much; and besides, constantly the fearful anxiety of betraying one's self before the eyes of the world, and then standing covered with ignominy and shame! It is really no wonder that the majority of us are incapable of real work; for we need all our strength of will and power of endurance for the struggle with our own fate. How injurious it is to our nerves constantly to be compelled to shut up all these thoughts and feelings in our hearts; where our lively fancy, feeding on it all, plays all the more intensely, so that we go about with a burning fire within us that only too often threatens to consume us! Happy are those of us that are never denied the strength to lead such a life; but those, too, are happy that have passed beyond it."

Case 123. *Autobiography.* "In what follows, you will find the description of the character, as well as the mental and sexual disposition,

of an urning,—*i.e.*, of an individual who, in spite of his masculine form, feels as a woman, whose senses women do not excite, and whose sexual desires are constantly directed toward men.

“Convinced that the enigma of our existence can be solved, or, at least, illuminated, only by the unprejudiced thought of scientific men, I describe my life only with the aim of perhaps clearing up this cruel error of Nature, and possibly doing a kindness to people like me to come in later generations; for there will be urnings as long as men are born, just as it is a fact that they have existed in every age. With the progress of science in our epoch, men will see in me and those like me not objects of hatred, but objects of pity, which deserve not the odium, but the compassion, of their more fortunate brothers. I shall be as brief as possible in my communication, and also objective; and, with reference to my caustic, often cynical, style, I may note that, above all, I shall be honest, and, therefore, not avoid strong expressions; for they are most happily suited to the subject in hand.

“I am in my thirty-fifth year; a merchant, with a fair income; somewhat above average height, slim, weak of muscle, with full beard, and quite ordinary face, and, at first sight, in nowise different from ordinary men. On the other hand, my gait is feminine, and particularly mincing in fast walking; the movements are awkward and displeasing, indicative of a want of manly feeling. The voice is neither feminine nor shrill, but rather a baritone.

“This is my external appearance.

“I do not smoke or drink, and can neither whistle, ride, do gymnastic feats, fence, nor shoot. I have absolutely no interest in horses or dogs, and have never had a gun or sword in my hand. In inner feeling and sexual desire, I am completely a woman. Without thorough education,—I passed through but few classes in the Gymnasium,—I am yet intelligent, like to read well-written, improving books, and have good judgment; but I allow myself to be carried away by the feelings of the moment, and I am easily influenced by any one who knows my weakness and how to make use of it. Constantly making resolves, I have never the energy to carry them out; like a woman, I am moody and nervous, often irritated without reason, and sometimes mean. Toward persons that do not please me, I am arrogant, unjust, and often shamefully insulting.

“In all my conduct I am superficial, and often frivolous, and I have no deep moral feeling. I have little consideration for parents and brothers and sisters. I am not egotistic, but, on occasion, self-sacrificing. I cannot withstand tears, and can—like a woman—be won by amiability and entreaty.

“In my earliest years I avoided playing soldier, gymnastics, or the rough games of my manly comrades, and ran about with little girls, with whom I was much more in sympathy than with boys. I was retiring,

bashful, and often blushing. When no more than twelve or thirteen years old, the close-fitting uniform of a handsome soldier gave me the most peculiar feeling ; and while, during the next few years, my comrades were always talking about girls, and even engaged in love-affairs, I could, for hours at a time, run after a well-built man with well-rounded hips, and feast my eyes on the sight.

"Without thinking much of these impressions, so different from the feelings of my comrades, I began to masturbate, always during the act thinking of a heroic, handsome form; and this continued until my seventeenth year, when I learned from a companion constituted like myself a true explanation of my condition. Since that time I have been with girls eight or ten times; but, in order to have an erection, it was always necessary to think of a handsome man of my acquaintance. And I am thoroughly convinced that to-day, even with the help of imagination, I should be unable to have intercourse with a girl.

"Shortly after my discovery I preferred to associate with mature, powerful urnings; for at this time I had neither mind nor opportunity to associate with real men. Since this my taste has changed entirely, and men, real men, of twenty-five or thirty-five years, with supple, powerful forms, are the only ones that ravish my senses, and charm me as if I were a woman. Circumstances have allowed me, during these years, to make about a dozen male acquaintances that would serve my purpose for a gulden or two a visit. If I am alone in a room with a handsome youth, my greatest pleasure is membrum ejus vel maxime si magnum atque crassum est, manibus capere et apprehendere et premere, turgentem nates femoraque tangere atque totum corpus manibus contrectare et, si conceditur, os faciem atque totum corpus, immovero nates, ardentibus osculis obtegere. Quodsi membrum magnum purumque est, dominusque ejus mihi placet, ardente libidine mentulam ejus in os meum receptam complures horas sugere possum, neque autem delector, si semen in os meum ejaculatur, cum maxima eorum qui "urnings" nominantur pars hac re non modo delectatur, sed etiam semen nonnunquam devorat.

"The most intense delight, however, is experienced when I find a real man, qui membrum meum in os recepit et erectionem in ore suo concedit.

"Improbable as it sounds, I am yet able to find some coarse fellows who will allow themselves to be used for this purpose. They learn the thing while in military service, for urnings know that under such circumstances they can be made to do the most for money; and when the fellows are once trained, circumstances often compel them, in spite of their passion for the opposite sex, to continue the practice.

"With certain exceptions, urnings make no impression on me, because everything feminine is repugnant to me. At the same time, there are some that know how to give me the most intense pleasure, just as a real man can; and I prefer to consort with them, for the reason that sometimes

they return my passionate caresses. In *tête-à-tête* with such a person, I throw all check from my excited senses, and give my animal passions free rein, oscular, premo, amplector eum, linguam meam in os ejus immitto ; ore cupiditate tremente ejus labrum superius sugo, faciem meam ad ejus nates adpono et odore voluptari e natibus emanente voluptate obstupescor. Real men, in close-fitting uniform, make the deepest impression on me ; and if I have an opportunity to embrace and kiss such a ravishing fellow, ejaculation takes place at once,—a weakness which I attribute to my frequent masturbation. In my earlier years I practiced it very frequently, almost every time I saw a man pleasing to me, whose image I kept before my eye during the act. For this my taste is in nowise difficult to please—like that a servant-girl might have in finding her ideal in a dragoon guard. A handsome face is a pleasant supplement, inflaming my sensual desire, but in no respect an essential. The requisite remains : vir inferiore corporis parte robusta et bene formosa, turgidis femoribus durisque natibus, while the upper portion of the body may be slim. Corpulence disgusts me. A sensual mouth with pretty teeth affects me more intensely ; and if the person has also a membrum pulchrum magnum et æqualiter formatum, all my demands—the most far-reaching—are fulfilled.

“ When I was younger, with men that pleased me and excited my passions intensely, ejaculation took place from five to eight times in a night, and now it occurs from four to six times ; for I am unusually strong sensually, and, as an example, even the clinking of a hussar’s sword may excite me. At the same time, I have a very lively fancy, and spend most of my leisure hours thinking of handsome men with strong limbs ; and I would be delighted to look on when a powerful fellow, using force, magna mentula præditus me præsente puellam futuat ; mihi persuasum est, fore ut hoc aspectu sensus mei vehementissima perturbatione afficiantur et dum futuit corpus adolescentis pulchri tangam et, si liceat, ascendam in eum dum cum puella concubitus atque idem cum eo faciam et membrum meum in ejus anum immittam. The accomplishment of these cynical ideas—with which my mind is often filled—is hindered only by my limited means ; otherwise, I should long ago have had the reality.

“ Soldiers have the greatest charm for me, but I have also a weakness for butchers, fakirs, drivers, circus-riders, and boat-captains ; and all these must be supple and powerfully built. Urnings I hate in intimate relation, and for the majority of them I have an inexplicable and unjust aversion. I have never had but one urning for an intimate friend. On the other hand, the most affectionate and enduring ties bind me to men of my own age, in whose company I delight, but with whom I have no sexual relations, and who have no idea of my condition.

“ Talk on politics and economics, like every other earnest subject, I hate ; though I gossip with considerable sense and peculiar pleasure about the theatre. At operas I see myself on the stage, feel myself applauded

by the public, and would prefer to sing as a passive heroine, or in the dramatic rôle of a woman.

"The most interesting subject of conversation for me, and those like me, is, however, always—men; for us this is inexhaustible. Their secret charms are described in the most minute details, mentulæ aestimantur, quanta sint magnitudine, quanta, crassitudine; de forma earum atque rigiditate conferimus, alter ab altero cognoscit cuius senen celerius, cuius tardius ejaculetur. I may add that, of my four brothers, one gave himself to the service of urnings, without himself being one; and all four are ladies' men, and indulge in sexual excesses. The genitals of the men of our family are, without exception, unusually developed.

"In conclusion, I repeat the words with which I began these lines. I could not choose my expressions, because my object in the foregoing has been to afford material for the study of the urning's existence, and absolute truth was essential. I beg the numerous cynics to keep this circumstance in mind."

In October, 1890, the writer of the foregoing lines presented himself to me. In all essentials his appearance corresponded with his description. Genitals large, with abundant growth of hair. His parents had been well nervously. One brother had shot himself on account of nervous trouble; three others were intensely nervous. The patient came to me in a state of despair. He could not endure such a life any longer; for he had been admonished about intercourse with men that could be bought; and with his extreme sensual nature he was unable to abstain. Too, he could not understand how he could be made to love women, and enjoy the nobler joys of life. He had had love for men since his thirteenth year.

He felt in all respects like a woman, and longed to be won by men that were not urnings. When he was with an urning, it was just as if two girls were together. He would prefer being sexless to living longer as he was. Would not castration help him?

An attempt at hypnosis with the highly excited patient induced only a very slight degree of lethargy.

Case 124. B., waiter, aged 42, single, was sent to me by his physician, with whom he was in love, as one who was suffering from contrary sexual feeling. B. very willingly, and in a decent manner, gave a history of his past life, especially of his sexual life, and was glad at least to have an authoritative opinion concerning his sexual condition, which had always appeared to him abnormal.

B. knew nothing to report of his grandparents. His father had been a passionate, excitable man, a drinker, and always very sensual. After he had begotten twenty-four children by one wife, he was divorced from her; and after that his landlady became three times pregnant by him. His mother was healthy.

Of the twenty-three children, but six were living; several were

nervous, but not sexually abnormal, with the exception of one sister, who always sought men.

B. asserts that from childhood he was sickly. At eight his sexual life began. He masturbated, and became possessed of the idea *penem aliorum puerorum in os arrigere*, which gave him the greatest pleasure. At twelve he began to fall in love with men, usually with those between thirty and forty, with moustaches. Even at that time his sexual desire was greatly developed, and he had erections and pollutions. From that time, indeed, he masturbated daily, and during the act thought of a beloved man. Yet his greatest delight had been *penem viri in os arrigere*. During the act he had ejaculation, with an intense feeling of pleasure. Only about twelve times had he had this pleasure. He had never felt disgust with the penis of another sympathetic man; quite the contrary. He had never accepted proffers of pederasty; actively or passively, it was very disgusting to him. In the perverse sexual act he had always thought of himself in the *rôle* of a woman. His passion for men in sympathy with him had been unbounded. He would have done everything for a lover; even at the sight of him he would tremble with excitement and joy.

At nineteen he often allowed himself to be taken by his comrades to houses of prostitution. He never had pleasure in coitus, and only in the moment of ejaculation felt satisfaction. In order to get an erection with a woman, it was always necessary, in the act, for him to think of a beloved man. He would always have preferred to have the woman allow *immissio penis in os*, which, however, was always denied him. *Faute de mieux*, he had practiced coitus, and, indeed, twice became a father. The last child, a girl of eight, had already begun to practice masturbation and mutual onanism, which troubled him very much as a father. He wished to know whether there was any remedy for it.

The patient asserted that he always felt himself toward men in a feminine *rôle* (also in sexual intercourse). He had always thought that his sexual perversion had resulted from his father's wishing to beget a girl when he begat him. His brothers and sisters had always joked him on account of his feminine manners. Sweeping and house-cleaning had always been pleasant occupations for him. His activities in this direction had often been wondered at, and he was considered more skillful than a girl. Whenever he could, he dressed like a woman. At the carnival he appeared at the dances masked as a female. He was very successful at coquetry on such occasions, because he had a feminine nature.

He had never had real pleasure in drinking, smoking, or in masculine occupations or pleasures; but, on the other hand, he loved to sew, and as a child had often been scolded for his playing with dolls. His interest at the circus or theatre was confined to men. Frequently he could not overcome the impulse to hang around water-closets, in order to get sight of male genitals.

Feminine charms had never pleased him. Coitus had been possible only when he thought of a beloved man. Nocturnal pollutions were always induced by lascivious dreams of men.

In spite of much sexual excess, B. had never suffered from neurasthenia sexualis, and, besides, there was not a symptom of neurasthenia discoverable in him.

Patient is delicate, and his whiskers and moustache, which made their appearance in his twenty-eighth year, are thin. Externally, with the exception of a weaving gait, he presents nothing which would point to his feminine nature. He asserts that he has often been joked about his feminine gait. His conduct is in all respects decent. His genitals are large, well developed, and normal in all respects, and the growth of genital hair is abundant; the pelvis is masculine. The head is rachitic, somewhat hydrocephalic, with prominence of the parietal bones. The face is remarkably small. The patient says that he is irritable and easily angered.

Case 125. On May 1, 1880, G., Ph.D., and a writer, was brought to the clinic for mental diseases, at Graz, by the public authorities. While on his return from Italy, G. found a soldier in Graz who gave himself up to him for hire, but ultimately denounced G. to the police, because G. had openly confessed his love for men. The authorities considered his mental condition doubtful, and sent him to alienists for examination. To the physicians G. related, with cynical openness, that years before, in M., he had had just such an affair with the police, and was in prison fourteen days. In the South there was no danger from such people; it was only in Germany and Austria that the thing was regarded as an evil.

G. is fifty years old, tall, powerful, and has a humerous expression, and a cynical, coquettish manner; the eye has a neuropathic, swimming expression; the teeth of the under jaw stand far back from those of the upper jaw. The cranium is normal, the voice masculine, and the beard abundant. The genitals are well formed, though the testicles are somewhat small. With the exception of slight emphysema of the lungs and external fistula in ano, there are no remarkable anomalies of the vegetative organs. G.'s father was subject to periodical insanity. His mother was a high-strung person, and she had an insane sister. Of the children, four died in childhood.

With the exception of serofulosis, G. asserts that he was healthy. He obtained the degree of Doctor of Philosophy; at twenty-five, he had hæmoptysis, and went to Italy, where he has since lived, with slight interruption, by writing and by giving private lessons. G. says that he often has congestions, and also some spinal irritation,—*i.e.*, pain in his back,—but otherwise he has a genial disposition; only he is not much of a financier; and at the same time, like all old prostitutes, he has a very good appetite. Further, he states, with great satisfaction and remarkable



cynicism, that he has congenital contrary sexual instinct. When only five years old, it was his greatest pleasure to get sight of a penis, and he hung about appropriate places, in order to enjoy that pleasure. Even before puberty he practiced masturbation. At the time of puberty he noticed an inward feeling for friends. An obscure impulse pointed out to him the way his love would take. He was actually impelled to kiss young men, and now and then to caress their genitals. When twenty-six years old, he first began to have sexual intercourse with men, toward whom he felt like a woman. Even as a child, it was his greatest delight to put on female attire. He was often chastised by his father because, in the effort to satisfy this impulse, he put on his sister's clothing. If he happened to see a *ballet*, only the male dancers interested him. Since he could remember, he had had a horror feminæ. If he happened to visit a brothel, it was only to see young men. He was, indeed, a rival of prostitutes. If he saw a young man, he just looked at his eyes; in case these pleased him, then came the mouth—whether it was well formed for kissing; then he would look at the genitals—whether they were well developed. G. pointed, with great feeling of self-satisfaction, to his poetical works, and tried to make it appear that persons with natures like his were poetically endowed. He gave as examples Voltaire, Frederick the Great, Eugene of Savoy, and Plato, as well as numerous distinguished men of the present, who, according to his opinion, were urnings. His greatest pleasure was to have a sympathetic young man read his verses to him. During the last summer he had had such a lover. When he had to part with him, he was quite undone, and he did not eat or sleep until gradually he had regained his former condition. He said that the love of urnings was a passionate, inner fire. According to his statement, in Naples the *effeminelli* lived in a quarter together, just as in Paris the *grisettes* live with their lovers. They sacrifice themselves for their lovers, and care for the household, just as the *grisettes* do. On the other hand, an urning repels an urning, "just as one prostitute does another—that is the curse."

The need of intercourse with males occurs about once a week with G. He is happy in his peculiar sexuality, which he, it is true, considers peculiar, but which he will not regard as abnormal or wrong. He thinks that nothing remains for him and those like him but to raise what is unnatural in themselves to the supernatural. He looks upon the love of urnings as the higher, the ideal, as godlike, an abstract love. When shown that such a love is far from the purpose of Nature and the preservation of the race, he expresses the pessimistic thought that the world should die out, and the earth turn round its axis without men, who were on it only for trouble. As reason and explanation of his unnatural sexual feeling, G. refers to Plato, "who certainly was no beast." Plato expressed allegorically the idea that men were originally balls. The gods had divided these into two hemispheres. For the most part,

man is suited to woman, but sometimes man to man. In the latter case, the impulse to union is quite as powerful as in the former, and they strengthen each other in the same way. G. further relates that his dreams, when they were erotic, never had women, but only men, for their subjects. Male-love was the only kind that could satisfy him. He considered it disgusting for one human being to be prodding about in the abdomen of another with his penis, since he had heard that in this disgusting fashion coitus was usually carried out. He had never had the curiosity to inform himself concerning the female genitals; the subject was disgusting to him. The indulgence of his sexual appetite he did not consider a vice, but the result of a natural impulse which compelled him to it. It conduced to self-preservation. Onanism was a poor substitute, and, moreover, injurious, while urning-love was morally elevating and conducive to physical well-being.

With moral indignation, which in contrast with his cynicism in other directions appeared ridiculous, he protested against the classification of urnings with those who indulged in pederasty. He looked on the podex with disgust, as it was a secreting organ. The intercourse of urnings always took place in front, and was combined onanism.

This was the extent of G.'s disclosures, whose mental condition was certainly congenitally abnormal. As proof of this, may be cited his cynicism; his incredible frivolity in his application of his vices to religion, in which direction we cannot follow him without overstepping the bounds set by scientific inquiry; his perverse philosophical ideas with reference to his sexual perversion; his perverse manner of looking at the world; his ethical defect in all directions; his vagabondage; and his perverse mind and exterior. G. makes the impression of an original paranoiac. (Personal case. *Zeitschrift für Psychiatrie.*)

Case 126. Taylor had occasion to examine a certain Eliza Edwards, aged 24. It was discovered that she was of masculine sex. E. had worn female clothing from her fourteenth year, and also been an actress. The hair was worn long after the manner of females, and parted in the middle. The form of the face was feminine, but otherwise the body was masculine. The beard was carefully pulled out. The masculine, well-developed genitals were fixed in an upward position by an artful bandage. The condition of the anus indicated passive pederasty.

Case 127. An official of middle age, who for some years had been happy in family life, and was married to a virtuous woman, presented a peculiar manifestation of contrary sexual feeling.

One day, through the indiscretion of a prostitute, the following scandal became public: About once a week X. would appear in a house of prostitution, and there dress himself up as a woman, always requiring, as a part of his costume, a coiffure. When his toilet was completed, he would lie down on the bed, and have the prostitute perform manustupration. But he very much preferred to have a male person (a servant of

the house). This man's father was hereditarily tainted, had been insane several times, and was afflicted with hyperæsthesia and paræsthesia sexualis.

Case 128. C. R., maid-servant, aged 26, suffered from the time of her development with original paranoia and hysteria. As a result of her delusions, her life had been somewhat romantic, and in 1884, in Switzerland, where she had gone as a result of delusions of persecution, she came under the observation of the authorities. On this occasion, it was ascertained that R. was affected with contrary sexual instinct.

Concerning her parents and relatives there is no information at hand. R. asserted that, with the exception of an inflammation of the lungs at the age of sixteen, she had never been severely ill.

First menstruation at fifteen, without any difficulties; thereafter it was very often irregular and abnormally excessive. The patient declared that she never had had inclinations toward the opposite sex, and had never allowed the approach of a man. She never could understand how her friends could describe the beauty and amiability of men. But it was charming and inspiring for her to imprint a kiss on the lips of a beloved female friend. She had a love for girls that was incomprehensible to her. She had passionately loved and kissed some of her female friends, and she would have given up her life for them. Her greatest delight would have been to have constantly lived with such a friend and absolutely possessed her.

In this she felt toward the beloved girl like a man. Even as a little child, she had an inclination only for the play of boys, and she loved to hear shooting and military music, was always much excited by them, and would gladly have gone as a soldier. The chase and war have been her ideals. In the theatre only feminine performers interested her. She knew very well that the whole of this inclination was unwomanly, but she could not help it. It had always been a great pleasure for her to go about in male clothing, and in the same way she had always preferred masculine work, and had shown unusual skill in it; while with reference to feminine occupations, especially handiwork, she had to say the contrary. The patient had also a weakness for smoking and spirits. On account of persecutory delusions, in order to rid herself of her persecutions, the patient had often gone about in male attire, and played the part of a man. She did this with such (congenital) skill that, as a rule, she was able to deceive people concerning her sex.

It is authoritatively established that in 1884, for a long time, the patient went about in male attire, now in the garments of a civilian, now in the uniform of a lieutenant; and in August of the same year, dressed as a male servant, she fled to Switzerland as a result of delusions of persecution. There she found service in a merchant's family, and fell in love with the daughter of the house, "the beautiful Anna," who, on her side, not recognizing the sex of R., fell in love with the handsome young man.

Concerning this episode the patient makes the following characteristic statement: "I was madly in love with Anna. I don't know how it came about, and I cannot put myself right concerning this impulse. In this fatal love lies the reason why I played the rôle of a man so long. I have never yet felt any love for a man, and I believe that my love is for the female and not the male sex. I can in nowise understand my condition."

From Switzerland R. wrote letters home to her friend, Amelia, which were produced at the examination. They are letters showing passionate love, which goes beyond the bounds of friendship. She apostrophizes her friend, "My flower, sun of my heart, longing of my soul." She was her greatest happiness on earth; her heart was hers. And in her letters to her friend's parents she wrote: "You, too, should watch your flower, for, if she should die, you also would be unable to endure life."

For the purpose of investigating her mental condition, R. remained for some time in an asylum. On one occasion, when Anna was allowed to pay R. a visit, there was no end of passionate embraces and kisses. The visitor acknowledged freely that they had before secretly embraced and kissed in the same way.

R. is a tall, slim, stately person, of feminine form in all respects, but with masculine features. Cranium regular; no anatomical signs of degeneration. Genitals normal and indicative of virginity. All the circumstances indicate that she has only indulged in platonic love. Glance and appearance are indicative of a neuropathic person. Severe hysteria, occasional cataleptoid attacks, with visionary and delirious states. The patient is very easily brought into a state of somnambulism by hypnotic influence, and in this condition is susceptible to all possible suggestions. (Personal case. *Friedreich's Blätter*, 1886, Heft 1.)

4. *Androgyny and Gynandry*.—Forming direct transitions from the foregoing groups are those individuals of contrary sexuality in whom not only the character and all the feelings are in accord with the abnormal sexual instinct, but also the skeletal form, the features, voice, etc.; so that the individual approaches the opposite sex anthropologically, and in more than a psychical and psycho-sexual way. This anthropological form of the cerebral anomaly apparently represents a very high degree of degeneration; but that this variation is based on an entirely different ground than the teratological manifestation of hermaphroditism, in an anatomical sense, is clearly shown by the fact that thus far, in the domain of contrary sexuality, no transitions to hermaphroditic malformation of the genitals have been observed. The genitals of these persons always prove to be fully differentiated

sexually, though not infrequently there are present anatomical signs of degeneration (epispadiasis, etc.), in the sense of arrests of development in organs that are otherwise well differentiated.

There is yet wanting a sufficient record of cases belonging to this interesting group of women in masculine attire with masculine genitals, and men in feminine dress with the sexual organs of the female. Every experienced observer of his fellow-men remembers masculine persons that were very remarkable for their womanish character and type (wide hips, form rounded by abundant development of adipose tissue, absence or insufficient development of beard, feminine features, delicate complexion, falsetto voice, etc.); and, on the other hand, women that, by reason of build, pelvis, gait, attitude, heavy and decidedly masculine features, rough and deep voice, etc., had little to remind one of femininity.

We have already met some indications of such an anthropological transformation in foregoing groups, as in Case 106, where the woman had the feet of a man; and in Case 112, where there was development of mammae and production of milk during puberty.

In persons belonging to the fourth group, and in certain ones in the third, forming transitions to the fourth, there seems to be a feeling of shame (sexual) toward persons of the same sex, and not toward those of the opposite sex.

Case 129. *Androgyny.* Mr. v. H., aged 30, single; of neuropathic mother. Nervous and mental diseases are said not to have occurred in the patient's family, and his only brother is said to be mentally and physically completely normal. The patient developed tardily physically, and, therefore, spent much of his time at the sea-shore and climatic resorts. From childhood he was of neuropathic constitution, and, according to the statements of his relatives, unlike other boys. His disinclination for masculine pursuits and his preference for feminine amusements were early remarked. Thus he avoided all boyish games and gymnastic exercises, while doll-play and feminine occupations were particularly pleasing to him. Thereafter he developed well physically, and escaped severe illnesses, but he remained mentally abnormal, incapable of an earnest aim in life, and decidedly feminine in thought and feeling.

In his seventeenth year pollutions occurred, became more frequent, and finally took place during the day; so that the patient grew weak, and

manifested various nervous disturbances. Symptoms of neurasthenia spinalis made their appearance, and have lasted up to the last few years, but they have become milder with the decrease in the number of pollutions. Onanism is denied, but is very probable. An indolent, effeminate, dreamy habit of thought has become more and more noticeable ever since puberty. All efforts to induce the patient to take up an earnest pursuit in life were vain. His intellectual functions, though formally quite undisturbed, were never equal to the motive of an independent character, and the higher ideals of life. He remained dependent, an overgrown child; and nothing more clearly indicated his original abnormal condition than an actual incapability to take care of money, and his own confession that he had no ability to use money reasonably; that as soon as he had money he wasted it for curios, toilet-articles, and the like.

Incapable as he was of a reasonable use of money, the patient was no more capable of leading a social existence; indeed, he was incapable of gaining an insight into its significance and value.

He learned very poorly, spending his time in *toilettes* and artistic nothings, particularly in painting, for which he evinced a certain capability; but in this direction he accomplished nothing, since he was wanting in perseverance. He could not be brought to take up any earnest thought; he had a mind only for externals, was always distracted, and serious things quickly wearied him. Preposterous acts, senseless journeys, waste of money, and debts repeatedly occur throughout the course of his later life; and even for these positive faults in his life he was wanting in understanding. He was self-willed and intractable, and never did well as soon as an attempt was made to put him on his feet and point out to him his own interests.

With these manifestations of an original abnormal and defective mind, there were notable indications of perverse sexual feeling, which were also indicated in the somatic habitus of the patient. Sexually, the patient felt like a woman toward men, and had inclinations toward people of his own sex, with indifference, if not actual disinclination, for females.

In his twenty-second year it is asserted that he had sexual intercourse with women, and was able to perform the act of cohabitation normally; but, partly on account of increase of neurasthenic symptoms which was occasional after coitus, and partly on account of fear of infection,—but really by reason of a want of satisfaction,—he soon ceased to indulge in such intercourse. Concerning his abnormal sexual condition, he is not quite clear; he is conscious of an inclination toward the male sex, but confesses, only in a shame-faced way, that he has certain pleasurable feelings of friendship for masculine individuals, which, however, are not accompanied by any sensual feelings. The female sex he does not exactly abhor; he could even bring himself to marry a woman who could have an attraction for him, by means of similarity in artistic tastes, if he could but be freed from conjugal duties, which were unpleasant to him,

and the performance of which made him tired and weak. He denied having had sexual intercourse with men, but his blushing and embarrassment, and, still more, an occurrence in N., where the patient, some time before, provoked a scandal by attempting to have sexual intercourse with youths, gave him the lie.

Too, his external appearance, habitus, form, gestures, manners, and dress are remarkable, and decidedly recall the feminine form and characteristics. The patient, however, is over middle height, but thorax and pelvis are decidedly of feminine form. The body is rich in fat; the skin is well cared for, delicate, and soft. This impression of a woman in masculine dress is further increased by a thin growth of hair on the face, which is shaven, with the exception of a small moustache; by the mincing gait; the shy, effeminate manner; the feminine features; the swimming, neuropathic expression of the eyes; the traces of powder and paint; the curtailed cut of the clothing, with the bosom-like prominence of the upper garments; the fringed, feminine cravat; and the hair brushed down smoothly from the brow to the temples. The physical examination makes undoubted the feminine form of the body. The external genitals are well developed, though the left testicle has remained in the canal; the growth of hair on the mons veneris is thin, and the latter is unusually rich in fat and prominent. The voice is high, and without masculine timbre.

Too, the occupation and manner of thought of v. H. are decidedly feminine. He has a boudoir and a well-supplied toilet-table, with which he spends many hours in all kinds of arts for beautifying himself. He abhors the chase, practice with arms, and such masculine pursuits, and calls himself an *aesthete*; speaks with preference of his paintings and attempts at poetry. He is interested in feminine occupations, which—*e.g.*, embroidery—he engages in, and calls his greatest pleasure. He could spend his life in an artistic and æsthetic circle of ladies and gentlemen, in conversation, music, and æsthetics. His conversation is preferably about feminine things,—fashions, needlework, cooking, and household work.

The patient is well nourished, but anaemic. He is of neuropathic constitution, and presents symptoms of neurasthenia, which are maintained by a bad manner of life, lying abed, living in-doors, and effeminateness. He complains of occasional pain and pressure in the head, and habitual obstipation. He is easily frightened; complains of occasional lassitude and fatigue, and drawing pains in the extremities, in the direction of the lumbo-abdominal nerves. After pollutions, and regularly after eating, he feels tired and relaxed; he is sensitive to pressure over the spinous processes of the dorsal vertebræ, as also to pressure along accessible nerves. He feels peculiar sympathies and antipathies for certain persons, and, when he meets people for whom he has an antipathy, he falls into a condition of peculiar fear and confusion. His pollutions, though now they occur but seldom, are pathological, in that they occur by day, and are unaccompanied by any sensual excitement.

Opinion: 1. Mr. v. H., according to all observations and reports, is mentally an abnormal and defective person, and that, in fact, *ab origine*. His contrary sexual instinct represents a part of his abnormal physical and mental condition.

2. This condition, in that it is congenital, is incurable. There exists defective organization of the highest cerebral centres, which renders him incapable of leading an independent life, and of obtaining a position in life. His perverse sexual instinct prevents him from exercising normal sexual functions; and this is attended by all the social consequences of such an anomaly, and the danger of satisfaction of perverse impulses arising out of his abnormal organization, with consequent social and legal conflicts. Fear of the latter, however, cannot be great, since the (perverse) sexual impulse of the patient is weak.

3. Mr. v. H., in the legal sense of the word, is not irresponsible, and neither fit for, or in need of, treatment in a hospital for the insane. It is possible for him—though but an overgrown child, and incapable of personal independence—to live in society, though under the care and guidance of normal individuals. Too, to a certain extent, it is possible for him to respect the laws and restrictions of society, and to judge his own acts; but, with respect of possible sexual errors and conflicts with criminal laws, it must be emphasized that his sexual instinct is abnormal, having its origin in organic pathological conditions; and this circumstance should eventually be used in his favor. On account of his notorious lack of independence, he cannot be discharged from parental care or guardianship, inasmuch as otherwise he would be ruined financially.

4. Mr. v. H. is also physically ill. He presents signs of slight anaemia and of neurasthenia spinalis. A rational regulation of his manner of life and a tonic regimen, and, if possible, hydro-therapeutic treatment, seem necessary. The suspicion that this trouble has its origin in early masturbation should be entertained, and the possibility of the existence of spermatorrhœa, that is of importance etiologically and therapeutically, lies near. (Personal case. *Zeitschr. f. Psychiatrie.*)

Case 130. Miss X., aged 38, consulted me, late in the fall of 1881, on account of severe spinal irritation and obstinate sleeplessness, in combating which she had become addicted to morphine and chloral. Her mother and sister were nervous sufferers, but the rest of the family were healthy. The trouble dated from a fall on her back in 1872, at which time the patient was terribly frightened, though, when a girl, she had been subject to muscular cramps and hysterical symptoms. Following this shock, a neurasthenic and hysterical neurosis developed, with predominating spinal irritation and sleeplessness. Episodically, hysterical paraplegia, lasting as long as eight months, and hysterical hallucinatory delirium, with convulsive attacks, occurred. In the course of this, symptoms of morphinism were added. A stay of some months in the hospital relieved the latter, and considerably improved the neurasthenic neurosis, in the

treatment of which general faradization exerted a remarkably favorable influence.

Even at the first meeting, the patient produced a remarkable impression by reason of her attire, features, and conduct. She wore a gentleman's hat, her hair closely cut, eye-glasses, a gentleman's cravat, a coat-like outer garment of masculine cut that reached well down over her gown, and boots with high heels. She had coarse, somewhat masculine features; a harsh, deep voice; and made rather the impression of a man in female attire than that of a lady, if one but overlooked the bosom and the decidedly feminine form of the pelvis. During the long time that she was observed, there were never signs of erotocism. When questioned concerning her attire, she would only respond that the style she chose suited her better. Gradually it was ascertained from her that, even when she was a small girl, she had had a preference for horses and masculine pursuits, and never any interest in feminine occupations. Later she developed a particular pleasure in reading, and prepared herself to be a teacher. Dancing had never pleased her; it had always seemed silly to her. Too, the *ballet* had never interested her. Her greatest pleasure had always been in the circus. Until her sickness, in 1872, she had neither had inclination for persons of the opposite nor for those of her own sex. From that time she had, what was remarkable to herself, a peculiar friendship for females, particularly for young ladies; and she had a desire, and satisfied it, to wear hats and coats of masculine style. Since 1869, besides, she had worn her hair short, and parted it on the side, as men do. She asserts that she was never sensually excited in the company of men, but that her friendship and self-sacrifice for sympathetic ladies was unbounded; while from that time she also experienced repugnance for gentlemen and their society.

Her relatives report that, before 1872, the patient had a proposal of marriage, which she refused; and that when she returned from a sojourn at a watering-place, in 1874, she was sexually changed, and occasionally showed that she did not regard herself as a female.

Since that time she would associate only with ladies, and has had a kind of love-relation with one or another, and made remarks which indicated that she looked upon herself as a man. This predilection for women was decidedly more than mere friendship, since it expressed itself in tears, jealousy, etc.

When, in 1874, she was stopping at a watering-place, a young lady, who took her for a man in disguise, fell in love with her. When this lady married, later, the patient was for a long time depressed, and spoke of unfaithfulness. Moreover, since her sickness, her relatives were struck by her desire for masculine attire, her masculine conduct, and disinclination for feminine pursuits; while previously, at least sexually, she had presented nothing unusual.

Further investigations showed that the patient had a love-relation,

which was not purely platonic, with the lady described in Case 118; and that she wrote her affectionate letters like those of a lover to his beloved. In 1887 I again saw the patient in a sanitarium, where she had been placed on account of hystero-epileptic attacks, spinal irritation, and morphinism. The contrary sexual feeling existed unchanged, and only by the most careful watching was the patient kept from improper advances toward her fellow-patients.

Her condition remained quite unchanged until 1889. Then the patient began to fail, and she died of "exhaustion," in August, 1889. The autopsy showed, in the vegetative organs, amyloid degeneration of the kidneys, fibroma of the uterus, and cyst of the left ovary. The frontal bone was much thickened, uneven on the inner surface, with numerous exostoses; dura adherent to vault of cranium. Long diameter of skull, 175 millimetres; lateral diameter, 148 millimetres; weight of the oedematous, but not atrophied, brain, 1175 grammes. The meninges delicate, easily removed. Cortex pale. Convolutions broad, not numerous, regularly arranged. Nothing abnormal in cerebellum and great ganglia.

*Case 131. Gynandry.*¹ History: On November 4, 1889, the step-father of a certain Count Sandor V. complained that the latter had swindled him out of 800f., under the pretense of requiring a bond as secretary of a stock company. It was ascertained that Sandor had entered into matrimonial contracts and escaped from the nuptials in the spring of 1889; and, more than this, that this ostensible Count Sandor was no man at all, but a woman in male attire,—Sarolta (Charlotte), Countess V.

S. was arrested, and, on account of deception and forgery of public documents, brought to examination. At the first hearing S. confessed that she was born on Sept. 6, 1866; that she was a female, Catholic, single, and worked as an authoress under the name of Count Sandor V.

From the autobiography of this man-woman I have gleaned the following remarkable facts that have been independently confirmed:—

S. comes of an ancient, noble, and highly-respected family of Hungary, in which there have been eccentricity and family peculiarities. A sister of the maternal grandmother was hysterical, a somnambulist, and lay seventeen years in bed, on account of fancied paralysis. A second great-aunt spent seven years in bed, on account of a fancied fatal illness, and at the same time gave balls. A third had the whim that a certain table in her *salon* was bewitched. If anything were laid on this table, she would become greatly excited and cry, "Bewitched! bewitched!" and run with the object into a room which she called the "Black Chamber," and the key of which she never let out of her hands. After the death of this lady, there were found in this chamber a number of shawls, ornaments,

¹ Comp. the expert medical opinion of this case, by Dr. Birnbacher, in Friedreich's Blätter f. ger. Med., 1891, H. 1.

bank-notes, etc. A fourth great-aunt, during two years, remained in her room, and neither washed herself nor combed her hair; she again made her appearance. All these ladies were, notwithstanding their eccentricities, finely educated, and amiable.

S.'s mother was nervous, and could not bear the light.

From her father's family it is said she had a trace too strong of the family. The male members of her family gave itself up almost entirely to spiritual exercises; the blood-relations on the father's side shot themselves. The majority of her male relatives are unusually talented; the females are decidedly narrow and domestic. S.'s father had a high position, which, however, on account of his eccentricity and extravagance (he wasted over a million and a half), he lost.

Among many foolish things that her father encouraged in her was the fact that he brought her up as a boy, called her Sandor, allowed her to ride, drive, and hunt, admiring her muscular energy.

On the other hand, this foolish father allowed his second son to go about in female attire, and had him brought up as a girl. This farce ceased in his fifteenth year, when the son was sent to a higher school.

Sarolta-Sandor remained under her father's influence till her twelfth year, and then came under the care of her eccentric maternal grandmother, in Dresden, by whom, when the masculine play became too obvious, she was placed in an Institute, and made to wear female attire.

At thirteen she had a love-relation with an English girl, to whom she represented herself as a boy, and ran away with her.

Sarolta returned to her mother, who, however, could do nothing, and was compelled to allow her daughter to again become Sandor, wear male clothes, and, at least once a year, to fall in love with persons of her own sex.

At the same time, S. received a careful education, and made long journeys with her father,—of course, always as a young gentleman. She early became independent, and visited *cafés*, even those of doubtful character, and, indeed, boasted one day that in a brothel she had had a girl sitting on each knee. S. was often intoxicated, had a passion for masculine sports, and was a very skillful fencer.

She felt herself drawn particularly toward actresses, or others of similar position, and, if possible, toward those who were not very young. She asserts that she never had any inclination for a young man, and that she has felt, from year to year, an increasing dislike for young men.

"I preferred to go into the society of ladies with ugly, ill-favored men, so that none of them could put me in the shade. If I noticed that any of the men awakened the sympathies of the ladies, I felt jealous. I preferred ladies who were bright and pretty; I could not endure them if they were fat or much inclined toward men. It delighted me if the passion of a lady was disclosed under a poetic veil. All immodesty in a woman was disgusting to me. I had an indescribable aversion for female

attire,—indeed, for everything feminine,—but only in as far as it concerned me; for, on the other hand, I was all enthusiasm for the beautiful sex."

During the last ten years S. had lived almost constantly away from her relatives, in the guise of a man. She had had many *liaisons* with ladies, traveled much, spent much, and made debts.

At the same time, she carried on literary work, and was a valued collaborator on two noted journals of the Capital.

Her passion for ladies was very changeable; constancy in love was entirely wanting.

Only once did such a *liaison* last three years. It was years before that S., at Castle G., made the acquaintance of Emma E., who was ten years older than herself. She fell in love with her, made a marriage-contract with her, and they lived together, as man and wife, for three years at the Capital.

A new love, which S. regarded as a fate, caused her to sever her matrimonial relations with E. The latter would not have it so. Only with the greatest sacrifice was S. able to purchase her freedom from E., who, it is reported, still looks upon herself as a divorced wife, and regards herself as the Countess V.! That S. also had the power to excite passion in other women is shown by the fact that when she (before her marriage with E.) had grown tired of a Miss D., after having spent thousands of gulden on her, she was threatened with shooting by D. if she should become untrue.

It was in the summer of 1887, while at a watering-place, that S. made the acquaintance of a distinguished official's family. Immediately she fell in love with the daughter, Marie, and her love was returned.

Her mother and cousin tried in vain to break up this affair. During the winter, the lovers corresponded zealously. In April, 1888, Count S. paid her a visit, and in May, 1889, attained her wish; in that Marie—who, in the meantime, had given up a position as teacher—became her bride in the presence of a friend of her lover, the ceremony being performed in an arbor, by a false priest, in Hungary. S., with her friend, forged the marriage-certificate. The pair lived happily, and, without the interference of the step-father, this false marriage, probably, would have lasted much longer. It is remarkable that, during the comparatively long existence of the relation, S. was able to deceive completely the family of her bride with regard to her true sex.

S. was a passionate smoker, and in all respects her tastes and passions were masculine. Her letters and even legal documents reached her under the address of "Count S." She often spoke of having to drill. From remarks of the father-in-law, it seems that S. (and she afterward confessed it) knew how to imitate a scrotum with handkerchiefs or gloves stuffed in the trousers. The father-in-law also, on one occasion, noticed something like an erected member on his future son-in-law (probably a

priapus). She also occasionally remarked that she was obliged to wear a suspensory bandage while riding. The fact is, S. wore a bandage around the body, possibly as a means of retaining a priapus.

Though S. often had herself shaved *pro forma*, the servants in the hotel where she lived were convinced that she was a woman, because the chambermaids found traces of menstrual blood on her linen (which S. explained, however, as haemorrhoidal); and, on the occasion of a bath which S. was accustomed to take, they claimed to have convinced themselves of her real sex by looking through the key-hole.

The family of Marie make it seem probable that she for a long time was deceived with regard to the true sex of her false bridegroom. The following passage in a letter from Marie to S., August 26, 1889, speaks in favor of the incredible simplicity and innocence of this unfortunate girl: "I don't like children any more, but if I had a little Bezerl or Patscherl by my Sandi,—ah, what happiness, Sandi mine!"

A large number of manuscripts allow conclusions to be drawn concerning S.'s mental individuality. The chirography possesses the character of firmness and certainty. The characters are genuinely masculine. The same peculiarities repeat themselves everywhere in their contents,—wild, unbridled passion; hatred and resistance to all that opposes the heart thirsting for love; poetical love, which is not marred by one ignoble blot; enthusiasm for the beautiful and noble; appreciation of science and the arts.

Her writings betray a wonderfully wide range of reading in classics of all languages, in citations from poets and prose writers of all lands. The evidence of those qualified to judge literary work shows that S.'s poetical and literary ability is by no means small. The letters and writings concerning the relation with Marie are psychologically worthy of notice.

S. speaks of the happiness there was for her when by M.'s side, and expresses boundless longing to see her beloved, if only for a moment. After such a happiness, she could have but one wish,—to exchange her cell for the grave. The bitterest thing was the knowledge that now Marie, too, hated her. Hot tears, enough to drown herself in, she had shed over her lost happiness. Whole quires of paper are given up to the apotheosis of this love, and reminiscences of the time of the first love and acquaintance.

S. complained of her heart, that would allow no reason to direct it; she expressed emotions which were such as only could be felt,—not simulated. Then, again, there were outbreaks of most silly passion, with the declaration that she could not live without Marie. "Thy dear, sweet voice; the voice whose tone perchance would raise me from the dead; that has been for me like the warm breath of Paradise! Thy presence alone were enough to alleviate my mental and moral anguish. It was a magnetic stream; it was a peculiar power your being exercised over

mine, which I cannot quite define; and, therefore, I cling to that ever-true definition: I love you because I love you. In the night of sorrow I had but one star,—the star of Marie's love. That star has lost its light; now there remains but its shimmer,—the sweet, sad memory which even lights with its soft ray the deepening night of death,—a ray of hope."

This writing ends with the apostrophe: "Gentlemen, you learned in the law, psychologists and pathologists, do me justice! Love led me to take the step I took; all my deeds were conditioned by it. God put it in my heart.

"If He created me so, and not otherwise, am I then guilty; or is it the eternal, incomprehensible way of fate? I relied on God, that one day my emancipation would come; for my thought was only love itself, which is the foundation, the guiding principle, of His teaching and His kingdom.

"O God, Thou All-pitying, Almighty One! Thou seest my distress; Thou knowest how I suffer. Incline Thyself to me; extend Thy helping hand to me, deserted by all the world. Only God is just. How beautifully does Victor Hugo describe this in his '*Legendes du Siècle*'! How sad do Mendelssohn's words sound to me: 'Nightly in dreams I see thee'!"

Though S. knew that none of her writings reached her lover, she did not grow tired writing of her pain and delight in love, in page after page of deification of Marie. And to induce one more pure flood of tears, on one still, clear summer evening, when the lake was aglow with the setting sun like molten gold, and the bells of St. Anna and Maria-Wörth, blending in harmonious melancholy, gave tidings of rest and peace, she wrote: "For that poor soul, for this poor heart that beat for thee till the last breath."

Personal Examination: The first meeting which the experts had with S. was, in a measure, a time of embarrassment to both sides; for them, because perhaps S.'s somewhat dazzling and forced masculine carriage impressed them; for her, because she thought she was to be marked with the stigma of moral insanity. She had a pleasant and intelligent face, which, in spite of a certain delicacy of features and diminutiveness of all its parts, gave a decidedly masculine impression, had it not been for the absence of a moustache. It was even difficult for the experts to realize that they were concerned with a woman, despite the fact of female attire and constant association; while, on the other hand, intercourse with the man Sandor was much more free, natural, and apparently correct. The culprit also felt this. She immediately became more open, more communicative, more free, as soon as she was treated like a man.

In spite of her inclination for the female sex, which had been present from her earliest years, she asserts that in her thirteenth year she first felt a trace of sexual feeling, which expressed itself in kisses,

embraces, and caresses, with sensual pleasure, and this on the occasion of her elopement with the red-haired English girl from the Dresden Institute. At that time feminine forms exclusively appeared to her in dream-pictures, and ever since, in sensual dreams, she has felt herself in the situation of a man, and occasionally, also, at such times, experienced ejaculation.

She knows nothing of solitary or mutual onanism. Such a thing seemed very disgusting to her, and not conducive to manliness. She had, also, never allowed herself to be touched ad genitalia by others, because it would have revealed her great secret. The menses began at seventeen, but were always scanty, and without pain. It was plain to be seen that S. had a horror of speaking of menstruation; that it was a thing repugnant to her masculine consciousness and feeling. She recognized the abnormality of her sexual inclinations, but had no desire to have them changed, since in this perverse feeling she felt both well and happy. The idea of sexual intercourse with men disgusted her, and she also thought it would be impossible.

Her modesty was so great that she would prefer to sleep among men rather than among women. Thus, when it was necessary for her to answer the calls of nature or to change her linen, it was necessary for her to ask her companion in the cell to turn her face to the window, that she might not see her.

When occasionally S. came in contact with this companion,—a woman from the lower walks of life,—she experienced a sexual excitement that made her blush. Indeed, without being asked, S. related that she was overcome with actual fear when, in her cell, she was compelled to force herself into the unusual female attire. Her only comfort was, that she was at least allowed to keep a shirt. Remarkable, and what also speaks for the significance of olfactory sensations in her *vita sexualis*, is her statement that, on the occasions of Marie's absence, she had sought those places on which Marie's head was accustomed to repose, and smelled of them, in order to experience the delight of inhaling the odor of her hair. Among women, those who are beautiful, or voluptuous, or quite young do not particularly interest her. The physical charms of women she makes subordinate. As by magnetic attraction, she feels herself drawn to those between twenty-four and thirty. She found her sexual satisfaction exclusively in corpora feminæ (never in her own person), in the form of manustupration of the beloved woman, or cunnilingus. Occasionally she availed herself of a stocking stuffed with oakum as a *priapus*. These admissions were made only unwillingly by S., and with apparent shame; just as in her writings, immodesty or cynicism are never found.

She is religious, has a lively interest in all that is noble and beautiful,—men excepted.—and is very sensitive to the opinion others may entertain of her morality.

She deeply regrets that in her passion she made Marie unhappy, and regards her sexual feelings as perverse, and such a love of one woman for another, among normal individuals, as morally reprehensible. She has great literary talent and an extraordinary memory. Her only weakness is her great frivolity and her incapability to manage money and property reasonably. But she is conscious of this weakness, and does not care to talk about it.

She is 153 centimetres tall, of delicate skeleton, thin, but remarkably muscular on the breast and thighs. Her gait in female attire is awkward. Her movements are powerful, not unpleasing, though they are somewhat masculine, and lacking in grace. She greets one with a firm pressure of the hand. Her whole carriage is decided, firm, and somewhat self-conscious. Her glance is intelligent; mien somewhat diffident. Feet and hands remarkably small, having remained in an infantile stage of development. Extensor surfaces of the extremities remarkably well covered with hair, while there is not the slightest trace of beard, in spite of all shaving experiments. The hips do not correspond in any way with those of a female. Waist is wanting. The pelvis is so slim, and so little prominent, that a line drawn from the axilla to the corresponding knee is straight,—not curved inward by a waist, or outward by the pelvis. The skull is slightly oxycephalic, and in all its measurements falls below the average of the female skull by at least one centimetre.

The circumference of the head is 52 centimetres; the occipital half-circumference, 24 centimetres; the line from ear to ear, over the vertex, 23 centimetres; the anterior half-circumference, 28.5 centimetres; the line from glabella to occiput, 30 centimetres; the ear-chin line, 26.5 centimetres; long diameter, 17 centimetres; greatest lateral diameter, 13 centimetres; diameter at auditory meati, 12 centimetres; zygomatic diameter, 11.2 centimetres. The upper jaw projects strikingly, its alveolar process projecting beyond the under jaw about 0.5 centimetre. The position of the teeth is not fully normal; the right upper canine has not developed. Mouth remarkably small. Ears prominent; lobes not differentiated, passing over into the skin of the cheek. Hard palate narrow and high; voice rough and deep; mammae fairly developed, soft, and without secretion. Mons veneris covered with thick, dark hair. Genitals completely feminine, without trace of hermaphroditic appearance, but at the stage of development of those of a ten-year-old girl. The labia majora touch each other almost completely; labia minora have a cock's-comb-like form, and project under the labia majora. The clitoris is small, and very sensitive. Frenulum delicate; perineum very narrow; introitus vaginæ narrow; mucous membrane normal. Hymen wanting (probably congenitally); likewise, the carunculæ myrtiformes. Vagina so narrow that the insertion of a membrum virile would be impossible, and it is also very sensitive; certainly coitus had not taken place. Uterus is felt,

through the rectum, to be about the size of a walnut, immovable, and retroflected.

The pelvis appears generally narrowed (dwarf-pelvis), and of decidedly masculine type. The distance between anterior superior spines is 22.5 centimetres (instead of 26.3 centimetres). Distance between the crests of the ilii, 26.5 centimetres (instead of 29.3 centimetres); between the trochanters, 27.7 centimetres (31); the external conjugate diameter, 17.2 centimetres (19 to 20); therefore, presumably, the internal conjugate would be 7.7 centimetres (10.8). On account of narrowness of the pelvis, the direction of the thighs is not convergent, as in a woman, but straight.

The opinion given showed that in S. there was a congenitally abnormal inversion of the sexual instinct, which, indeed, expressed itself, anthropologically, in anomalies of development of the body, depending upon great hereditary taint; further, that the criminal acts of S. had their foundation in her abnormal and irresistible sexuality.

S.'s characteristic expressions—"God put love in my heart. If He created me so, and not otherwise, am I, then, guilty; or is it the eternal, incomprehensible way of fate?"—are really justified.

The court granted pardon. The "countess in male attire," as she was called in the newspapers, returned to her home, and again gave herself out as Count Sandor. Her only distress is her lost happiness with her beloved Marie.

A married woman, in Brandon, Wisconsin, whose case is reported by Dr. Kiernan (*The Medical Standard*, 1888, November and December), was more fortunate. She eloped, in 1883, with a young girl, married her, and lived with her as husband undisturbed.

An interesting "historical" example of androgyny is a case reported by Spitzka (*Chicago Medical Review*, August 20, 1881). It was that of Lord Cornbury, Governor of New York, who lived in the reign of Queen Anne. He was apparently affected with moral insanity; was terribly licentious, and, in spite of his high position, could not keep himself from going about in the streets in female attire, coqueting with all the allurements of a prostitute.

In a picture of him that has been preserved, his narrow brow, asymmetrical face, feminine features, and sensual mouth at once attract attention. It is certain that he never actually regarded himself as a woman.

Moreover, in individuals afflicted with contrary sexual instinct, in themselves, the perverse sexual feeling and inclination may be complicated with other perverse manifestations. Thus here, with reference to the activity of the instinct, there

may be acts quite analogous to acts indulged in by individuals in perverse satisfaction of the instinct, but who, at the same time, have a natural inclination toward persons of the opposite sex.

Owing to the circumstance that abnormally increased sexuality is almost a regular accompaniment of contrary sexual feeling, acts of lustful cruelty in the satisfaction of libido are easily possible. A remarkable example of this is the case of Zastrow (Casper-Liman, 7. Auflage, Bd. i, p. 190; ii, p. 487), who bit one of his victims (a boy), tore his prepuce, slit the anus, and strangled the child.

Z. came of a psychopathic grandfather and melancholic mother. His brother indulged in abnormal sexual pleasures, and committed suicide.

Z. was a congenital urning, and in habitus and occupation masculine. There was phimosis. Mentally, he was a weak, perverse, unsocial man. He had horror feminæ, and, in his dreams, he felt himself like a woman toward a man. He was painfully conscious of his want of normal sexual feeling and his perverse instinct, and sought satisfaction in mutual onanism, with frequent desire for pederasty.

Similar sadistic feelings of this kind, in those afflicted with contrary sexual instinct, are found in some of the foregoing histories (comp. Cases 107 and 108 of this edition, and Case 96 of the sixth edition). But masochism also occurs (comp. Case 43, sixth edition ; Cases 111 and 114 of this edition ; and Case 3, in the first edition of "Neue Forschungen").

As examples of perverse sexual satisfaction dependent on contrary sexual instinct, may be mentioned the Greek, who, as Athenäus reports, was in love with a statue of Cupid, and defiled it, in the temple of Delphi ; and besides the monstrous cases reported by Tardieu ("Attentats," p. 272), the terrible one reported by Lombroso ("L'uomo delinquente," p. 200), of a certain Artusio, who wounded a boy in the abdomen, and abused him sexually *by means of the incisions*.

Cases 86, 110, and 111, also, show that fetichism may also occur with contrary sexual instinct.

DIAGNOSIS, PROGNOSIS, AND THERAPY OF CONTRARY SEXUAL INSTINCT.

While up to this time contrary sexual instinct has had but an anthropological, clinical, and forensic interest for science, now, as a result of the latest investigations, there is some thought of therapy in this incurable condition, which so heavily burdens its victims, socially, morally, and mentally.

A preparatory step for the application of therapeutic measures is the exact differentiation of the acquired from the congenital cases; and among the latter, again, the assignment of the concrete case to its proper position in the categories that have been established empirically.

The diagnostic differentiation of the acquired from the congenital condition is made without difficulty in the early stages of the anomaly.

If sexual inversion has already taken place, then the history of the development of the case will throw light upon it.

The important decision, prognostically, as to whether the contrary sexual instinct is congenital or acquired, can only be made in such cases by means of the most minute details of the history.

The establishment of the fact that contrary sexual instinct existed before indulgence in masturbation is of great importance with reference to deciding whether the anomaly is congenital or not. In this, however, a difficulty arises, owing to the possibility of imperfect localization of past events (illusions of memory).

For the presumption of acquired contrary sexual instinct, it is important to prove the existence of hetero-sexual instinct before the beginning of solitary or mutual onanism.

In general, the acquired cases are characterized in that:—

1. The homo-sexual instinct appears secondarily, and always may be referred to influences (masturbative neurasthenia, mental) which disturbed normal sexual satisfaction. It is, however, probable that here, in spite of powerful sensual libido, the feeling and inclination for the opposite sex are weak *ab origine*, especially in a spiritual and æsthetic sense.

2. The homo-sexual instinct, as long as *inversio sexualis* has not taken place, is looked upon, by the individual affected, as vicious and abnormal, and yielded to only *faute de mieux*.

3. The hetero-sexual instinct long remains predominant, and the impossibility of its satisfaction gives pain. It weakens in proportion as the homo-sexual feeling gains in strength.

On the other hand, in congenital cases (*a*) the homo-sexual instinct is the one that occurs primarily, and becomes dominant in the *vita sexualis*. It appears as the natural manner of satisfaction, and also dominates the dream-life of the individual. (*b*) The hetero-sexual instinct fails completely, or, if it should make its appearance during the life of the individual (psycho-sexual hermaphroditism), it is still but an episodical phenomenon which has no root in the mental constitution of the individual, and is essentially but a means of satisfaction of sexual desire.

The differentiation of the above groups of congenital contrary sexuality from one another, and from the cases in which the anomaly is acquired, will, after the foregoing, present no difficulties.

The prognosis of the cases of acquired contrary sexual instinct is, at all events, much more favorable than that of the congenital cases. In the former, the occurrence of effemimation—the mental inversion of the individual, in the sense of perverse sexual feeling—is the limit beyond which there is no longer hope of benefit from therapy. In the congenital cases, the various categories established in this book form as many stages of psycho-sexual taint, and benefit is *probable* only within the category of the psychical hermaphrodites, though *possible* (*vide* the case of Schrenk-Notzing) in that of the urnings.

The prophylaxis of these conditions becomes thus the more important,—for the congenital cases, prohibition of the reproduction of such unfortunates; for the acquired cases, protection from the injurious influences which experience teaches may lead to the fatal inversion of the sexual instinct.

Numerous predisposed individuals meet this sad fate, because parents and teachers have no suspicion of the danger which masturbation brings in its train to such children.

In many schools and academies masturbation and vice are actually cultivated. At present much too little attention is given to the mental and moral peculiarities of the pupils. If only the tasks are done, nothing more is asked. That many pupils are thus ruined in body and soul is never considered. In obedience to affected prudery, the *vita sexualis* is veiled from the developing youth, and not the slightest attention given to the excitations of his sexual instinct. How few family physicians are ever called in, during the years of development of children, to give advice to their patients that are often so greatly predisposed!

It is thought that all must be left to Nature; in the meantime, Nature rises in her power, and leads the helpless, unprotected innocent into dangerous by-paths.

A more detailed treatment of this prophylactic side of the subject is impossible here.¹

To parents and teachers, the experiences detailed in this work, and numerous scientific works on masturbation, give suggestions.

The lines of treatment, when contrary sexual instinct exists, are the following:—

1. Prevention of onanism, and removal of other influences injurious to the *vita sexualis*.
2. Cure of the neurosis (*neurasthenia sexualis* and *universalis*) arising out of the unhygienic conditions of the *vita sexualis*.
3. Mental treatment, in the sense of combating homosexual, and encouraging hetero-sexual, feelings and impulses.

The most important part of the treatment lies in fulfilling the third indication, particularly with reference to onanism.

Only in very few cases, where acquired contrary sexual

¹ With reference to prophylaxis, the following words, which were written to me by the subject of Case 88 of the sixth edition, are noteworthy: "If it were only possible that—not as among the Spartans, where the weaklings were allowed to perish for the sake of perfect selection, in accordance with the Darwinian idea—our contrary sexual instincts might be recognized early in youth; and if it were only possible that, at this time of life, the worst of all diseases could be cured by suggestion! Probably cure could be more easily effected in youth than later."

instinct has not progressed far, can the fulfillment of 1 and 2 be sufficient, as the following case, fully reported by the author in the *Irrenfreund*, 1884, No. 1, proves:—

Case 132. Count Z., aged 51, of psychopathic mother, was early sent to a military school, and there was taught onanism. He developed well, and had normal sexual feelings, but, as a result of masturbation, he became somewhat neurasthenic in his seventeenth year. He enjoyed intercourse with women, was married at twenty-five, but after a year more became neurasthenic, and absolutely lost his inclination for women. In its place came contrary sexual instinct. Involved in an accusation for high treason, he was sent to prison for two years, and then to Siberia for five years. In these seven years, under the influence of continued masturbation, neurasthenia and contrary sexual instinct constantly increased. With his freedom restored at the age of thirty-five, the patient began to visit all kinds of health-resorts on account of his great neurasthenia; and this has since been his occupation. In all these years his abnormal sexual feeling has not changed in any way. For the most part, he lived away from his wife, whom, it is true, he esteemed for her mental qualities; though he avoided her, as he did every other woman. His contrary sexual feeling is purely platonic. "Friendship," sweet embraces, and kisses sufficed him. Pollutions, which occasionally occurred, were induced by lascivious dreams which had for subject persons of his own sex. Also, during the day, the most beautiful woman had no charm for him, while simply the sight of handsome men induced erection and ejaculation. Only athletes and male dancers in the circus and *ballet* interested him. At times of greater excitability, even masculine statues gave him erections. Now and again he resumed his old vice of masturbation. This man of æsthetic culture had a horror of pederasty.

He felt, always, that his perverse sexual feeling was something abnormal, without, however, in his apparently much weakened libido and virility, feeling unhappy.

The examination gave the usual findings of neurasthenia. Development, manner, and attire presented nothing remarkable. Electrical massage was unusually successful. After a few sittings the patient was mentally and physically much better. After twenty sittings libido was again awakened, not in the same way, but normally, as the patient had felt until his twenty-fifth year. Lascivious dreams were concerned only with women; and one day the patient joyfully gave the information that he had had coitus, and that he had had the same natural feeling in it that he had had twenty-six years before. He then began to live with his wife again, and hoped that he was lastingly freed from neurasthenia and contrary sexual instinct. His hope was fulfilled for the six years during which I was able to keep the patient under observation.

As a rule, physical treatment, even though it be re-inforced morally by good advice with reference to the avoidance of masturbation, the repression of homo-sexual feelings and impulses, and the encouragement of hetero-sexual desires, will not prove sufficient, even in cases of acquired contrary sexual instinct.

Here a method of mental treatment—hypnotic suggestion—is all that can bring benefit.

The following case is interesting; and it is an example of successful auto-suggestion that gives encouragement for the milder forms of the anomaly:—

Case 133. *Autobiography of a Psychical Hermaphrodite. Successful Struggle against Homo-sexual Inclinations made by the Patient himself.*—"My father once had a stroke, but has recovered save for paralysis of the face. My mother was very anaemic and melancholic. Both suffered severely with haemorrhoids, and my father ascribed to this trouble the lumbar pain with which he suffered from time to time after his marriage.

"I am, if I may so express myself, a passive character. When a child, I indulged in all kinds of fancies, religious as well as others. I suffered with incontinence of urine, and it is said that in sleep I handled my genitals, so that my father fastened my hands to the bed! (I was then a mere child, and had not masturbated.) I was always very shy and embarrassed in social intercourse. When about fourteen or fifteen years old, I was seduced into onanism. The impulse and desire for women, occurring in connection with the awakening sexual feeling, were, in reality, only of a platonic nature; I was also without the society of ladies. When about eighteen, I attempted to satisfy my sexual desire in the natural way, more in obedience to a feeling of curiosity than from inner longing. Since that time, without having experienced any real inclination for women, as often as possible I have satisfied my desire by means of sexual intercourse.

"Soon after puberty I became very anaemic, and appeared much older than I really was. Then came melancholic and peculiar ideas. It was a delight to me to fancy myself humiliated in the extreme. It may be of interest to add that, at that time, I was troubled with religious doubts, and only later found the courage to rise above religions. I fell in love with young men. At first I opposed these ideas; later they became so powerful that I became a genuine urning. Women seemed to me to be human beings of the second class. I was in a state of despair. My sickened soul was filled with tedium vitæ and thoughts inimical to humanity. One day I read: 'What will it come to?' And ere I knew it, I was a socialist; but an ideal one. Life again had value for me, for I had

an ideal,—the joyous struggle for the social elevation of the proletariat. This caused a powerful revolution in me. As in my best years (from the age of sixteen to seventeen), I took interest in art, particularly in dramatic art. I am, at the present time, writing a play and a story, and I am occupied with the grandest thoughts. I read a remark of Schlegel's concerning Sophocles, who was indebted to his physical exercise for his energy and creative power, and to music for his artistic proportions. In another place I read: 'The dramatist must, above all things, be mentally intact.' This depressed me; for my contrary sexual feelings could not arise in a perfectly normal mind.

"I thought of having myself treated hypnotically; but shame held me back. Then I said to myself that I was a weakling, indeed, to have so little confidence in myself, and began in earnest to combat my abnormal desires. At the same time, I struggled against my nervousness by leading the proper kind of a life. I rowed, fenced, and was much in the open air; and I was delighted when, at last, I awoke and seemed to be an entirely different man. When I thought of the time from my twentieth to my twenty-sixth year, it seemed to me that, during those years, a strange and depressive being had been dwelling within me.

"I was astonished that the handsomest rider or the trimmest waiter excited in me almost no interest; even the muscular masons had no effect on me. I was disgusted when I thought that, at one time, such men had seemed handsome to me. My self-respect increased; I am good-natured, but my character is entirely active. Since my twentieth year my appearance has steadily improved. My appearance now corresponds perfectly with my years. There were recurrences of my abnormal inclinations, to be sure; but I struggled against them energetically. I satisfy my libido only by means of natural intercourse, and I hope that, by continuing to lead a proper life, my pleasure in natural coitus will increase."

As a rule, only suggestion coming from a second person, and that by means of hypnosis, promises any success. In such cases, the object of post-hypnotic suggestion is to remove the impulse to masturbation and homo-sexual feelings and impulses, and to encourage hetero-sexual feelings with a sense of virility. A prerequisite is, of course, the possibility to induce hypnosis of sufficient intensity. It is, unfortunately, in these very cases of neurasthenia that this is impossible, since they are often excited, embarrassed, and in no condition to concentrate their thoughts.

Thus, in a case reported by me in the *International. Centralblatt für die Physiologie und Pathologie der Harn- und*

Sexualorgane, Bd. i, Heft 2, p. 58, it was impossible for me to induce hypnosis, though the patient desired it, and did everything to make it successful. By reason of the great benefit that can be given to such unfortunates, and with Ladame's case in view (*v. infra*), in the future, in all such cases, everything should be done to bring about hypnosis,—the only means of salvation. The result, in the three following cases, was satisfactory :—

Case 134. Contrary Sexual Instinct Acquired through Masturbation.—Mr. X., merchant, aged 29. Father's parents healthy. Nothing nervous in father's family. Father was an irritable, peevish old man. One brother of the father was a man-about-town, and died unmarried. Mother died in third confinement, when the patient was six years old; she had a deep, rough, masculine voice, and coarse appearance. Of the children, one brother is irritable, "melancholic," and indifferent to women.

When a child patient had scarlet fever with delirium. Until his fourteenth year he was light-hearted and social, but, after that, quiet, solitary, and "melancholic." The first trace of sexual feeling appeared in his tenth or eleventh year, and at that time he learned masturbation from other boys, and practiced mutual onanism with them. At the age of thirteen or fourteen, ejaculation for the first time. Patient has felt no evil results of onanism until the last three months.

In school he learned easily, but was troubled with headaches. After the age of twenty, pollutions, in spite of daily practice of onanism. With pollutions, "procreative" dreams, as man and wife might perform the act, occurred. In his seventeenth year he was seduced into mutual onanism by a man having a love for men. He found satisfaction in this, inasmuch as he was always very passionate sexually. It was a long time before the patient again sought new opportunities for intercourse with males. He did it simply to rid himself of semen. He felt no friendship or love for the person with whom he had intercourse. He felt satisfaction only when he played the passive rôle,—when manustupration was practiced on him. When the act was once completed, he had no respect for the individual. If it happened that, later, he came to respect the man, then he ceased to indulge in the act with him. Later it became indifferent to him whether he masturbated or had masturbation practiced on him. When he himself practiced onanism, he always thought of pleasing men practicing onanism on him during the act. He preferred a hard, rough hand.

The patient thought that, had he not been led astray, he would have arrived at a natural mode of satisfaction of his sexual desires. He

never felt love for his own sex, though he had pleased himself with the thought of loving men. At first he had had sensual inclinations toward the opposite sex. He had taken pleasure in dancing, and he had been pleased with women, but he had taken more pleasure in the figure than the face. Too, he had had erections at the sight of women that pleased him. He had never attempted coitus, for fear of infection; whether he was potent or not with women, he did not know. He thought he could be so no longer, because his feeling for women had grown cold, especially during late years.

While previously, in his sensual dreams, he had had ideas of both men and women, of late years he had dreamed only of approaches to men; he could not remember that he had dreamed, in late years, of sensual relations with a woman. At the theatre, as well as in the circus and *ballet*, the feminine figure had always interested him. In museums masculine and feminine statues had affected him equally.

Patient is a great smoker, a beer-drinker, loves male society, and is a gymnast and skater. Anything dandified was repugnant to him, and he had never felt any desire to please men; he would even have preferred to please women.

He now felt his position to be painful, because onanism had obtained the upper hand. Masturbation, that had previously been practiced without evil effects, now began to disclose its bad results.

Since July, 1889, he had suffered with neuralgia of the testicles. The pain occurred particularly at night; and at night there was also trembling (increased reflex excitability).

Sleep was not refreshing, and he would wake up with pain in the testicles. He was inclined, now, to indulge more frequently in onanism. He was afraid of the consequences of the habit. He hoped that his sexual life might still be turned into normal channels. Now, he thought of the future; he had a relation with a girl, who was attractive to him, and the thought to possess her as a wife was pleasing.

For five days he had abstained from onanism, but he could scarcely believe that he would be able, with his own strength, to overcome the habit. Of late he had been very much depressed, having lost all desire for work, and become tired of life.

Patient is tall, powerful, well nourished, and has a thick growth of beard. Skull and skeleton normal. Knee-jerks very prompt; deep reflexes in upper extremities much increased. Pupils dilated, equal, and act promptly. Carotids of equal calibre; hyperæsthesia urethræ; cords and testicles not sensitive; genitals normal.

The patient was calmed, and given hope for the future, provided that he give up onanism and attempt to transfer his sexual desires from persons of his own sex to females.

Hip-baths (24° to 20° R.); ext. secal. conut. aquos., 0.5; antipyrin, 1.0 (*pro die*); pot. brom., 4.0 (evenings), were ordered.

December 13th. To-day the patient came, in a disturbed condition of mind, complaining that, unaided, he was unable to resist the impulse to masturbate, and he asked for help.

A trial of hypnosis induced a condition of deep lethargy in the patient. He was given the following suggestions :—

1. I can not, must not, and will not masturbate again.
2. I abhor the love for my own sex, and shall never again think men handsome.
3. I shall and will become well again, fall in love with a virtuous woman, be happy, and make her happy.

December 14th. While out walking to-day, patient saw a handsome man, and felt himself powerfully drawn toward him.

From this time there were hypnotic sittings every second day, with the above suggestions.

December 18th (fourth sitting), somnambulism occurred ; the impulse to onanism and interest in men disappear.

At the eighth sitting "complete virility" was added to the above suggestions. The patient feels himself morally elevated and physically strengthened. The neuralgia of the testicles has disappeared. He now found that he was without sexual feeling.

He now believed himself free from masturbation and contrary sexual inclination.

After the eleventh sitting he thought that further help was unnecessary. He wished to go home, and marry. He felt well and potent. Early in January, 1890, treatment ceased.

In March, 1890, the patient wrote : "I have since had several occasions on which it has been necessary for me to use all my moral strength in order to overcome my habit, and, thank God, I have been successful in freeing myself from this vice. Several times I have had opportunity for sexual intercourse, and I have found pleasure in it. I look calmly on my happy future."

Case 135. Acquired Contrary Sexual Instinct. Marked Improvement under Hypnotic Treatment.—Mr. P., born in 1863, official in a manufactory. He comes of a highly respected patrician family of Middle Germany, in which nervousness and insanity have been of frequent occurrence.

His great-grandfather on the father's side and his sister died insane ; the grandmother died of apoplexy ; father's brother died insane, and a daughter of the latter died of cerebral tuberculosis. The maternal grandmother was melancholic for years ; maternal grandfather, insane. A maternal uncle took his life in an attack of insanity. The patient's father is very nervous. An elder brother is very neurasthenic, and has anomalies of the *vita sexualis* ; another is the subject of Case 155 ; a third is eccentric in conduct, and is said to be subject to fixed ideas. A sister suffers with convulsions, and another died of them when a little child.

The patient is constitutionally predisposed; for he was early very peculiar, irritable, irascible, and impressed those around him as being abnormal.

His *vita sexualis* appeared very early and in great intensity, and was satisfied, without any seductions, in onanism. From his sixteenth year the prematurely developed boy visited brothels of the Capital, using his permissions to go out on Sundays and holidays for that purpose. He took pleasure in coitus, but during the week he satisfied himself with onanism. After his twentieth year, when he became independent, the patient indulged with prostitutes excessively, and fell ill with neurasthenia sexualis, becoming relatively impotent and unsatisfied in coitus, owing to weakness of erection and premature ejaculation. His sexual libido became more powerful than ever, and was satisfied in onanism. Early in 1888 the patient made the acquaintance of a young man. "By his pleasing face, his attractive manner, and his beautiful form, he conquered me entirely. I wished to speak to him, and was happy at mere sight of him. I was completely in love with him. With this, my love for women was extinguished. Any man could excite me to such an extent that, for some moments, I would feel my memory fail, and I would stammer.

"Soon after this I made the acquaintance of a gentleman who was likewise very attractive, and who had a decided influence on my future life. He was male-loving. I confessed to him that I no longer felt anything but aversion for the female sex, and that I was attracted to men.

"When I once asked my companion how he brought it about that soldiers would surrender themselves to him, he answered that the principal thing was skill; almost any of them could be brought to it. Late in 1888, thinking of these words, I was attracted by an officer's servant, and was intensely excited by him, but ejaculation never occurred. Since I saw that the soldier would surrender himself without trouble, I approached him. *Alium quondam militem in cubiculum allectum rogavi ut veste exuta tecum in lectum coneumberet. Rogatus fecit quæ volui et alter alterius penem trivit.*

"Though after this success I misused many persons, I was never really in love, so to speak, with but one. He was a very handsome young fellow of seventeen. His voice was so attractive to me, and his manner was so delicately proper, that I cannot forget him. In my dreams I thought only of handsome young men, and often for whole nights I could not sleep, owing to sensual feeling."

Early in 1889 the patient's conduct awakened a suspicion of male-love. A threatening communication frightened him, and plunged him in deep depression, so that he contemplated suicide. At the advice of the family physician, he came to the Capital. Since the patient was unable to overcome his habitual desires by his own will, hypnotic treatment was undertaken. It induced but mild lethargy, and, in opposition to the seduction of former lovers, it had but little effect.

At that time the patient was wanting in earnest desire. There was some improvement in matters, in the face of the disgrace to relatives and the prospect of a legal examination that was actually threatening. The patient determined to attempt a cure with the author.

I found him to be a delicate, pale, very neurasthenic man, much depressed, and despairing about the future. He was without degenerative signs. He realized his perverted situation, and seemed to be willing to do anything in order to become again a decent, moral man.

He regretted exceedingly his sexual perversion, which he regarded as abnormal, but also as having been acquired. He made no attempt to conceal the fact that he could not control himself with young men, and likewise he would not say that he could abstain from onanism, to which, *faute de mieux*, he was driven. Only a powerful, imperious will could keep him from it.

Thus far his male-love had consisted exclusively of mutual onanism. Erections occurred only when touching men he loved; ejaculation resulted early, but simple embrace was not sufficient. He had never felt himself in any particular sexual rôle toward a man. Genitals and vegetative organs normal.

In addition to treatment directed to his neurasthenia, on April 8, 1890, hypnotic suggestion was begun. Hypnosis was easily induced by simply looking at him, with verbal suggestion. After a half-minute the patient passed into deep lethargy, with a cataleptiform state of the muscles. The awakening was brought about by suggesting it at counting three. Post-hypnotic suggestions were always successful. The intra-hypnotic suggestions were :—

1. The interdiction of onanism.
2. The command that male-love should be felt to be disgraceful and despicable, and that it should be impossible.
3. The command to regard only women as beautiful; to approach them, to dream of them, and to have libido and erection at sight of them.

The sittings occurred daily. On April 14th, the patient announced, with thankfulness and a kind of moral satisfaction, that he had had pleasure in coitus, and had ejaculated tardily. On April 16th, he felt free from inclination to masturbate, attracted to women, and perfectly indifferent to men. He dreamed of female charms and coitus with women. May 1st, the patient seemed and felt himself to be normal sexually. He has become a different man mentally, full of courage and self-confidence. He has coitus with complete satisfaction, and thinks that he is insured against relapse.

In a later letter Mr. P. writes: "As was only to be expected, I find myself lastingly freed from my errors. All that remains to remind me of my unhappy time are the dreams, which, though they are infrequent, come from my past, which I have no power to banish, and

which sometimes, indeed, pleasantly occupy my thoughts. But by my own will I yet hope soon to succeed in freeing myself absolutely from them. Should I ever become weak again, the ideas you have impressed on me would, I am sure, make an energetic resistance, and I should not succumb."

On October 20, 1890, P. wrote me: "I am completely cured of onanism, and I have no pleasure in male-love. Yet complete virility does not seem to have been re-established, notwithstanding the fact that I lead a virtuous life. Nevertheless, I feel satisfied."

Case 136. *Acquired Contrary Sexual Instinct.*—Mr. Z., aged 32, divorced. He comes of a hysteropathic mother. Maternal grandmother suffered with hysteria, and her brothers and sisters were neurotic. One brother is an urning. Z. was but poorly endowed mentally, and did not learn easily. No sickness besides scarlatina. When thirteen, he was taught to masturbate by companions in a school. Sexually, he was hyperæsthetic, and, at seventeen, began to indulge in coitus, with full pleasure and power. For reasons of position and money, he married at twenty-six. The marriage was very unhappy. After a year Mrs. Z. became incapable of coitus, by reason of uterine disease. Z. satisfied his inordinate desires with other women, *faute de mieux*, by masturbation. Besides, he gave himself up to play, led an absolutely dissolute life, became exceedingly neurasthenic, and sought to strengthen his weakened nerves by drinking great quantities of wine and brandy. To his essential cerebral asthenia were added peripheral alcoholic cramps and globus, and he became very emotional. His libido nimia continued unabated. On account of his disgust of prostitutes and fear of infection, satisfaction by coitus was exceptional. For the most part, the patient helped himself with onanism.

Four years ago he noticed weakening of erection and decrease of libido for women. He began to feel himself drawn toward men, and his lascivious dreams were no longer concerned with women, but with men.

Three years ago, while being rubbed by a bath-attendant, he became powerfully excited sexually (the attendant also had an erection, to patient's surprise). He could not keep from embracing and kissing the attendant, and allowing him to perform masturbation on him, the attendant doing it most willingly. From this time this mode of sexual indulgence was all that he cared for. Women became a matter of entire indifference to him; he devoted himself exclusively to men. With them he practiced mutual masturbation, and had a longing to sleep with them. He abhorred pederasty. He was entirely satisfied until (August, 1890) an anonymous letter, warning him to be careful, brought him to his senses. He was much frightened, had hysterical attacks, and became much depressed. He was embarrassed before men, seemed like a pariah in society, contemplated suicide, and finally confessed to a priest, who comforted him. He now fell into a religious state (equivalent), and, out

of remorse and to cure himself of his abnormal sexual inclinations, wished to go into a cloister. While in this state, my "Psychopathia Sexualis" fell into his hands. He was frightened and filled with shame, but found a comfort in it, inasmuch as he concluded that he must have some malady. His first thought was to rehabilitate himself sexually in his own eyes. He overcame all disinclination, and visited a brothel. At first he was not successful, on account of great excitement, but he finally succeeded.

Since, however, his contrary sexual inclinations were not overcome, in spite of all his efforts to put them down, he finally came to me, asking for assistance. He felt himself to be terribly unfortunate, and very near to despair and suicide. He saw destruction before him, and would be saved at any price.

His confession was interrupted by numerous hysterical attacks. Comforting and encouraging words about his future had a calming influence.

Physically, patient presented a slightly retreating brow, with no other anatomical signs of degeneration. Spinal irritation, exaggerated deep reflexes, and a sense of pressure in the head pointed to a neurasthenic condition. No genital anomalies, though there was hyperesthesia urethræ. Men distressed; attitude relaxed; mind distracted and vacillating.

Hip-baths, massage, ergot with antipyrin and pot. brom., ordered, with interdiction of onanism, intercourse with men, and lascivious thoughts of them.

After a few days the patient came complaining that he was not equal to the task. He said his will was too weak. In this precarious situation, it seemed that nothing but hypnotic treatment could bring improvement.

September 11, 1889. First sitting. Bernheim's method used, in order to induce lethargy as quickly as possible.

Suggestions:—

1. I abhor onanism, and will not masturbate again.
2. I regard the inclination for men disgusting,—horrible; and I shall never think men handsome and enticing.
3. Women alone I find enticing. Once a week I shall cohabit, with full pleasure and power.

The patient received these suggestions, and repeated them in a drawling tone.

The sittings took place every second day. After the fifteenth, it was possible to induce the somnambulic stage of hypnosis with any post-hypnotic suggestions desired.

The patient improved morally and mentally, but symptoms of cerebral neurasthenia troubled him still, and, now and then, dreams of men occurred; and there were, also, in the waking state, inclinations toward men, which depressed him exceedingly.

Treatment until September 24th. Result: Free from onanism; no longer excitable to men, though impressionable to women. Normal coitus once in eight days. Hysterical symptoms absent; neurasthenic symptoms much ameliorated.

On October 6th the patient reported by letter that he was feeling well, and expressed his gratitude for his salvation; he felt as if given a new life.

December 9, 1889, patient again came for treatment. Of late he had had lascivious dreams of men twice, but had experienced no inclination toward men in the waking state. He had also resisted the impulse to masturbate, though, while living alone in the country, he had had no opportunity for coitus. He had inclinations only for the opposite sex, and, as a rule, dreamed only of females. Returned to the city, he had indulged in coitus with pleasure. The patient felt himself morally rehabilitated, being almost free from neurasthenic symptoms; and, after three more hypnotic sittings, he declared himself perfectly well, and confident that he would not relapse. Such a relapse occurred, however, in September, 1890, when, after over-exertion on an excursion into the mountains, and emotional strain with want of opportunity for coitus, he had again become neurasthenic.

Again he had dreams of men, and felt drawn toward attractive male forms; he masturbated many times, and, after returning to the city, found no real pleasure in coitus. By means of anti-neurasthenic treatment and hypnosis, it was possible soon to restore the previous condition.

In the course of the years 1890 and 1891 the patient now and then had contrary sexual feelings and dreams, but only when, as a result of emotional strain or excesses, his neurosis re-appeared. At such times satisfaction in coitus was wanting. He would then find it necessary to undergo a few hypnotic sittings, in order to restore his equilibrium—always with success.

At the end of 1891 the patient pointed with satisfaction to the fact that, since treatment, he had been able to avoid masturbation and male-intercourse, and had regained his self-confidence and self-respect.

The foregoing details of the successful results of hypnotic suggestion, in cases of acquired contrary sexual feeling, make it seem possible that those unfortunates that are afflicted with the congenital perversion may be helped in some degree by the same means.

To be sure, here the condition is entirely different, since a congenital condition must be combated, an abnormal psychosexual life annihilated, and a new one created. *A priori* this

task seems impossible; at least, in the perfect urning. That the apparently impossible is artificially possible may be seen from the case of Schrenk-Notzing, which follows below. It far surpasses the case reported by me (*v. infra*), in which at least the homo-sexual feelings and impulses were removed by means of hypnotic suggestion.

The case of Ladame (*v. infra*) is an analogous one. The conditions are more favorable in psycho-sexual hermaphrodites, where at least there are rudiments of hetero-sexual feelings that may be strengthened and made operative by suggestion.

Case 137. "I was born in 1858, out of wedlock. It was only late that I was able to trace my obscure origin, and obtain knowledge of my parents; and this knowledge is, unfortunately, very obscure and imperfect. My father and mother were cousins. My father died three years ago. He had later married, and, as far as I know, had several healthy children.

"I do not think that my father had contrary sexual feelings. Without knowing him as my father, I often saw him when I was a child. He was a powerful, masculine man. As for the rest, it is said that, at the time of my birth, or before, he was sexually ill.

"I have often seen my mother on the street, but I did not then know that she was my mother. At the time of my birth she may have been about twenty-four years old. She was tall, and quick and energetic of movement, and her character was decided. At the time of my birth she is reported to have gone about much in male attire, to have worn short hair, to have smoked a long pipe, and in general to have been remarkable for her eccentric character. She was exceedingly well educated, and is said to have been beautiful in her youth. She left a fortune,—considerable even when measured by our present ideas,—but she died unmarried.

"In any case, all this would point to homo-sexual inclinations, or, at least, to abnormalities. On the other hand, several years before my birth, my mother took care of a little girl. This step-sister, whom I never knew, married young, but early in her married life, for reasons unknown to me, she poisoned herself.

"I am 1.7 metres tall, measure 92 centimetres around the waist, and 102 centimetres around hips, and, therefore, I think my pelvis is somewhat over-developed. The subcutaneous fat has always been abundant. Skeletal form is strong. The muscular system is well formed, but, from lack of exercise, perhaps owing to the influence of early, long-continued, and frequent indulgence in onanism, it is not well developed; so that I appear stronger than I really am. Hair of head and face is

normal; genital hair, somewhat thin. The upper portion of the body is as good as without hair. In all other ways my appearance is fully masculine. Gait, attitude, and voice are those of a fully developed man, and other urchins have often told me that they would never have suspected my passion. I served in the army, and always found pleasure in all knightly exercises,—riding, fencing, swimming, etc.

“ My early training was under a priest. I had but few real playmates. The family life of my foster-parents was faultless. In October, 1861, I entered the Institute. Here I indulged in my first perverse acts, which I shall describe more fully when I come to the development of my sexual life.

“ I finished the Gymnasium, served my voluntary years in the army, and then studied forestry, being now a director of estates. During my early years my mental development was very slow. I first learned to speak in my third year, and thus the supposition that I had hydrocephalus was strengthened. From the time of beginning school, my mental development was abnormal; indeed, I learned easily, but I have never been able to concentrate my activity on any particular subject. I have a great interest in art and æsthetics, but almost none in music. In early years my character was the worst possible. Without being able to give any reason for it, during the last twelve years there has been an entire transformation. Now, there is nothing I hate more than a lie, and I never speak untruth even in jest. In financial matters, without being avaricious, I have become an economical manager.

“ It is enough that, with a deep feeling of shame, I look back on my past; and, if I could be freed from my unhappy sexual perversion, or perversity, I should justly regard myself as a true gentleman. I am kind, and always ready to be charitable to the extent of my means; I am gay-spirited, and regarded with favor socially. I have no trace of that nervous irritability which is so often noticeable in others like me. Too, I am not wanting in personal courage. There is nothing in the early period of my development that points to abnormality. To be sure, as a child, I liked to lie in bed on my abdomen, and, of a morning, I often took delight in rolling about on my abdomen, much to the amusement of my foster-parents; but I cannot recall that, at such times, I ever had sensual feeling. I never sought much to play with girls, and I never played with dolls. I early heard talk about sexual matters; but I never thought anything about it. In my dreams, too, at that time, there was nothing sexual; and, in my association with boys of my own age, there was nothing of that kind. I think I may say that my *vita sexualis* was really first awakened after I had been seduced into mutual masturbation, in my thirteenth year, by a room-mate at the Institute. At that time ejaculation did not take place, but first about a year later. Nevertheless, I gave myself up to the vice of onanism passionately. At this time, however, the first signs of homo-sexual inclination were mani-

fested. Youthful, powerful men, market-helpers, workmen, and soldiers took possession of my dreams, and played an important rôle in my fancy while masturbating. At this time was also first shown the tendency to pederasty, especially passive. Up to my fourteenth year I frequently made mutual attempts at pederasty with my seducer, but neither of us were successful in bringing about immissio. At the same time, there was also a weak inclination for the female sex. About a year after the first indulgence in onanism, I was once with a puella publica, but I had neither ejaculation nor any especial feeling of sensual pleasure. Thereafter, and up to my nineteenth year, I performed coitus in public houses about six times. Erection and ejaculation occurred promptly, but without marked sensual pleasure. At least onanism, particularly mutual onanism, I liked quite as much. I have never had any love for athletes. About ten years ago, while at H., a watering-place, I thought I was in love with a beautiful lady of a highly respectable family; I was happy in her presence, and thought myself happy in finding my love returned. For a time this affair kept me from masturbating; I was only afraid that, weakened by onanism that had been practiced for years, I should be incapable of performing my marital duty. When we became widely separated, my feeling quickly cooled; I found that I had deceived myself; and, after about two years, without jealousy, I was able to hear that the lady had married. My inclination for women—if, in reality, I have ever had any—grew colder and colder. Two and a half years ago, when I visited a public house with very virile friends, I last performed coitus. There was erection, but no ejaculation. Women have become indifferent to me. A prostitute who acts coarsely excites my repugnance. With intellectual women, particularly when they are elderly, I like to converse, but in their society I am often unskillful and awkward, often devoid of tact. I have never been able to find any charm in woman's physical form.

"But, to return to the perverse inclinations. When, at the age of fourteen, I went to H., I lost sight of my lover and seducer. He was some years older than I, and was an official; and, in this capacity, when I was nineteen, I again met him once on the railway. We immediately cut the journey short, and lodged together, attempting mutual pederasty; but, on account of pain, immissio was not successful. We amused ourselves in mutual onanism. In H. I had sexual intercourse with two fellow-students, but this intercourse was confined to frequent mutual onanism, owing to the fact that they were not inclined to pederasty. During the last year of my stay (when I was nineteen), I had intercourse with another person, which likewise consisted of onanism; but our intercourse was more intimate, and we always retired, and practiced mutual onanism in bed. From Easter, 1869, until July, 1870, I had no lover. I practiced onanism alone. When the war broke out, I offered myself as a volunteer, but was not accepted. At the same time a former school-

mate offered himself. He had developed into a remarkably handsome man. I had to spend one night with him in an over-crowded hotel. Though as students we had never associated sexually, he was not averse to my desire, and attempted pederasty. In this instance pain prevented success; but, in the attempt, *ejaculatio ante anum meum* occurred. Even now I can recall the pleasurable feeling I had in it,—a feeling previously unknown. After the war I frequently met this friend, but our intercourse was later limited to onanism. During the following eighteen years I had but two opportunities for homo-sexual intercourse. The first was in the winter of 1879, on the occasion of meeting a handsome hussar in a railway carriage. I induced him to sleep with me at an hotel. Later he confessed to me that he had previously practiced mutual masturbation with the son of a landed proprietor of his town. I could not bring him to pederasty. On the other hand, I induced ejaculation in him by *receptio penis ejus in os meum*. This caused me no satisfaction, but rather disgust. I have never tried it again; and, too, I have never allowed *receptio penis mei in os alterius*. In 1887, likewise on the railway, I made the acquaintance of a sailor, and induced him to stay with me at an hotel. He said he had never practiced pederasty, but he was ready for it. He was apparently sensually excited; he had an erection immediately, and performed the act with evident passion. It was the first time that pederasty was successfully performed. I had terrible pain, but also indescribable pleasure.

"With my sojourn here, my *vita sexualis* has undergone a complete change. I have learned how easy it is to find persons who, partly for money and partly from desire, yield to our inclinations. I have also not been spared annoying experiences with cheats. Until the end of the last year (since then, owing to fear of venereal infection, I have not gone beyond mutual masturbation), I enjoyed male-love to the full extent, particularly in passive pederasty. I have never practiced active pederasty, because I have found no one able to endure the pain.

"Generally, I seek my lovers among cavalrymen and sailors, and, eventually, among workmen, especially butchers and smiths. Robust forms, with healthy facial complexions, attract me especially. Leathern riding-trousers have a particular charm for me. I have no partiality for kissing and the like. I also love large, hard, and calloused hands.

"I do not wish to leave unmentioned that, under certain circumstances, I have great control of myself.

"As director of an estate, I lived in a large house. My personal servant was a very handsome young man who had served in the hussars. After once having spoken with him, in general terms, on the subject, and found that he could not be approached, for years I lived in close intimacy with him, and enjoyed his beauty, but never touched him. I think that, to this day, he knows nothing of my passion. Likewise, two and a half years ago, in C., I made the acquaintance of a sailor, who is still regarded

by me and my acquaintances as one of the handsomest men we know. After an absence of more than two years, on invitation, he visited me a few weeks ago. I knew how to arrange matters so that we slept in the same room, and I burned with desire to be nearer to him. As a preliminary, however, I sounded him in confidential talk; and, when I found that he despised everything connected with male-love, I had not the heart to approach him more closely. For weeks we slept in the same room, and I took constant delight in his divine form (at first, was sexually excited, in fact); I bathed with him, in the Roman manner, in order to see his beautiful form naked,—but he never learned anything of my passion. I still have an ideal, platonic relation with this young man, who, for one of his position, has an unusual education and fine talent for poetry.

"Until my thirty-eighth year I had not a clear understanding of my condition. I always thought that, by early and frequent masturbation, I had become averse to women, and hoped always that, when the right woman came, I should be able to abandon onanism and find pleasure in her. Here it was that I first came to fully understand my condition, after making the acquaintance of others suffering and feeling like myself. At first I was frightened; later I came to look upon my fate as something not dependent on myself. Too, I made no further effort to resist temptation.

"Two or three weeks ago 'Psychopathia Sexualis' fell into my hands. The work has made an unexpectedly deep impression on me. At first I read the work with an interest that was undoubtedly lascivious. The description of the cultivation of *mujerados*, for example, excited me uncommonly. The thought of a young, powerful man being emasculated in this manner, in order, later, to be used for pederasty by a whole tribe of wild, powerful, and sensual Indians, so excited me that I masturbated five times during the next two days, fancying myself such a presumptive *mujerado*. The farther I read in the book, however, the more I saw its moral earnestness; the more I felt disgust with my condition; and the more I saw that I must do everything, if it were possible, to bring about a change in my condition. When I had finished the book, I was determined to seek assistance from its author.

"The reading of this work had an undoubted effect. Since then I have masturbated only twice, and have practiced onanism with cavalry-men only twice. In every instance I have had really less pleasure and satisfaction than before, and I always have the feeling: 'Ah, if I could only be free from it!' Nevertheless, I confess that, even now, in the society of handsome soldiers, I immediately have erection.

"In conclusion, I may add that, in spite of, or, perhaps, on account of, onanism, I have never had pollutions. The ejaculation of semen, which usually consists of only a few drops, and it has always been so, takes place only after prolonged friction. If, for any reason, I have not

masturbated for a long time, the ejaculation takes place quickly, and is more abundant. About twelve years ago Hansen tried in vain to hypnotize me."

In the spring of 1891 the writer of the foregoing autobiography visited me, with the declaration that he could live no longer in his condition; that he looked to hypnotic treatment as the only hope of salvation, for he had not strength enough to resist his impulse to masturbation and satisfaction with persons of his own sex. He felt like a pariah; like an unnatural man; like one outside the laws of nature and society, and in danger of criminal prosecution. He felt moral repugnance when he performed the act with a man, but yet the sight of any handsome soldier actually electrified him. For years he had not had the slightest sympathy with women, not even mentally.

The patient looked to be exactly the person, physically and mentally, described by himself in his autobiography. His head was exquisitely hydrocephalic, and also plagioccephalic. At first attempts at hypnosis met with difficulties. Only by Braid's method, with the help of a little chloroform, was deep lethargy attained at the third sitting. From that time simply looking at a shining object was sufficient. The suggestions consisted of the command to avoid masturbation, the removal of homosexual feelings, and the assurance that the patient would have inclination for women and be virile, and have pleasure only in hetero-sexual intercourse. Masturbation was indulged in but once; after the eighth sitting the patient dreamed of a woman.

When, after the fourteenth sitting, the patient had to return, on account of pressing business, he declared that he was quite free from any inclination to masturbate or to indulge in male-love, but that he was by no means absolutely free from his partiality for men. He felt a returning interest in the female sex, and hoped to be freed finally from his unhappy condition by continuance of the treatment.

Case 138. *Psychical Hermaphroditism*.—Mr. von P., aged 25, single, comes of a neuropathic family. As a child he had convulsions. He recovered, but remained weak, emotional, and irritable. No severe illnesses. Before his tenth year sexuality was manifested. His earliest remembrance concerning it was that of lascivious feelings in company with the servants of the house. When older, he had sensual dreams which were of intercourse with men. In circuses the male performers alone interested him.

Youthful, powerful men were most enticing to him. Often, he could scarcely resist the longing to fall on their necks and kiss them. Of late simply the touching of such persons had become sufficient to give him pleasure and induce ejaculation. The impulse to engage in "affairs" with men he had, thus far, fortunately resisted. The patient is a psychical hermaphrodite, in so far as he is not insensitive to the charms of women, and finds men more pleasing than women. In fact, feminine

nudity had never pleased him, and he can remember only to have dreamed once of coitus with a woman.

On account of his great sexual desire, and because he was ashamed to give himself up to men, after his twentieth year he began to have sexual intercourse with women. Since then, he has very seldom indulged in manual onanism, but often in mental masturbation, during which the forms of handsome men float through his fancy.

He had coitus with success, but without pleasure or sensual feeling. On account of circumstances, he was forced to abstain from his twenty-second until his twenty-fourth year. This abstinence was painful, and he relieved himself, now and then, by mental onanism.

When, a year ago, he had opportunity again for coitus, he noticed failure of libido for women, imperfect erection, and premature ejaculation. Finally he gave up coitus; then libido for men was manifested.

In the condition of irritable weakness of the ejaculatory centre, mere touching of sympathetic men was sufficient to induce ejaculation.

Patient is an only child. The circumstances of his family demand that he marry. He justly hesitates to do this, thinks he is mentally impotent, and asks for advice and help.

He points out that his feeling for men must be eradicated in order to help him.

Patient's appearance is, in all respects, masculine. His head is slightly hydrocephalic and rhombic. Abundant growth of beard. Genitals normal; cremasteric reflex cannot be excited. No manifestations of neurasthenia. Neuropathic eyes. Pollutions infrequent. Erections occur only as a result of contact with men.

July 16, 1889, hypnotic suggestion, after Bernheim's method, was begun. It was first at the third sitting that deep lethargy was induced.

Suggestions: "You have no longer any desire for men. Only woman is beautiful and desirable. You will love a woman, marry, be happy, and make her happy. You are fully potent; you feel that already."

In daily hypnosis, which never goes beyond lethargy, the patient accepts the suggestions. On July 24th, he announces that he has had pleasure in coitus; and the male servants no longer interest him. At the same time, he still finds men more beautiful than women. On August 1, 1889, it was necessary to discontinue treatment. Result: Completely potent; entire indifference for men, but also for women.

The same treatment met with decided success in a case of psycho-sexual hermaphroditism, reported by me in vol. i of the *Internat. Centralblatt für die Physiol. u. Path. der Harn- und Sexualorgane.*

Case 139. Mr. von X., aged 25, landed proprietor. He comes of a neuropathic, passionate father. Father is said to have been normal sexually. His mother was nervous, as were her two sisters. Maternal grandmother was nervous, and his maternal grandfather was a *roué*, much given to venery. Patient is like his mother, and an only child. From birth he was weak, suffered much with migraine, and was nervous. He passed through several illnesses. At fifteen he began masturbation, without having been taught it.

Until his seventeenth year he says he never had feeling for men, or, in fact, any sexual inclination; but at this time desire for men arose. He fell in love with a comrade. His friend returned his love. They embraced and kissed and indulged in mutual onanism. Occasionally patient practiced coitus inter femora viri. He abhorred pederasty. Lascivious dreams were concerned only with men. In the circus and theatre males alone interested him. The inclination was for those of about twenty years. Handsome, tall forms were enticing to him. Given these conditions, he was quite indifferent to other characteristics of the men. In his sexual affairs with men his part was always that of a man.

After his eighteenth year the patient was always a source of anxiety to his highly respected parents, for he then began a love-affair with a male waiter, who fleeced him and made him an object of remark and ridicule. He was taken home. He consortied with servants and hostlers. He caused a scandal. He was sent away for travel. In London he got into a "blackmailing scrape," but succeeded in escaping to his home.

He profited in no way by this bitter experience, and again showed disgraceful inclinations toward men. Patient was sent to me to be cured of his fatal peculiarity (December 12, 1888). Patient is a tall, stately, robust, well-nourished young man, of masculine build; large, well-formed genitals. Gait, voice, and attitude are masculine. He has no pronounced masculine passions. He smokes but little, and only cigarettes; drinks little, and is fond of confectionery. He loves music, arts, æsthetics, flowers, and moves in ladies' society by preference. He wears a moustache, the face being otherwise cleanly shaven. His garments are in nowise remarkable. He is a soft, *blasé* fellow, and a do-nothing. He lies abed mornings, and can scarcely be made to rise before noon. He says he has never regarded his inclination toward his own sex as abnormal. He looks upon it as congenital; but, taught by his evil experiences, he wishes to be cured of his perversion. He has little faith in his own will. He has tried to help himself, but always begins to masturbate. This he finds injurious, inasmuch as it causes slight neurasthenic symptoms. There is no moral defect. The intelligence is a little below the average. Careful education and aristocratic manners are apparent. The exquisite neuropathic eye betrays the nervous constitution. The patient is not a complete and hopeless urning. *He has hetero-*

sexual feelings, but his sensual inclinations toward the opposite sex are manifested weakly and infrequently. When nineteen, he was first taken to a brothel by friends. He experienced no horror feminæ, had efficient erections, and some pleasure in coitus, but not the instinctive delight he experienced while embracing men.

Since then, patient asserts that he has had coitus six times, twice *sua sponte*. He gives the assurance that he is always capable of it, but he does it only *faute de mieux*, as he does masturbation, when the sexual impulse troubles him, as a substitute for intercourse with men. He has thought of the possibility of finding a sympathetic lady and marrying her. He would regard marital cohabitation and abstinence from intercourse with men as hard duties.

Since there were rudiments of hetero-sexual feelings present, and the case could not be looked upon as hopeless, it seemed that treatment was indicated. The indications were clear enough, but there was no support for them in the will of the indolent patient, so unconscious of his own position. It lay near to seek support for the moral influence in hypnosis. The fulfillment of this hope seemed doubtful, because the famous Hansen had tried several times, in vain, to hypnotize him.

At the same time, by reason of the most important social interests of the patient, it was necessary to make another attempt. To my great surprise, Bernheim's procedure induced immediately a condition of deep lethargy, with possibility of post-hypnotic suggestion.

At the second sitting somnambulism was induced by merely looking at him. The patient is obnoxious to suggestions of all kinds; indeed, contractures are induced by stroking him. He is awakened by counting three. Awakened, patient has amnesia for all the events of the hypnotic state. Hypnosis is induced every second or third day for the communication of hypnotic suggestions. At the same time, moral and hydro-therapeutic measures are employed.

The hypnotic suggestions were as follow:—

1. I abhor onanism, because it makes me sick and miserable.
2. I no longer have inclination toward men; for love of men is against religion, nature, and law.
3. I feel an inclination toward women; for woman is lovely and desirable, and created for man.

During the sittings the patient always repeats these suggestions. After the fourth sitting it was noticeable that, when taken into society, he paid court to ladies. Shortly after that, when a famous prima-donna sang, he was all enthusiasm for her. Some days later the patient sought the address of a brothel.

At the same time, he preferred the society of young gentlemen; but the most careful watching failed to reveal anything suspicious.

February 17th. Patient asks to be allowed to indulge in coitus, and is very well satisfied with his experience with one of the *demi-monde*.

March 16th. Up to this time, hypnosis twice a week. The patient always passes into deep somnambulism by simply being looked at, and, at request, repeats the suggestions. He is obnoxious to all kinds of post-hypnotic suggestion, and, in the waking state, knows not the least of the influences exerted on him in the hypnotic state. In the hypnotic condition he always gives the assurance that he is free from onanism and sexual feeling for men. Since he gives the same answers in hypnosis,—e.g., that on such and such a date he practiced onanism for the last time, and that he is too much under the will of the physician to be able to lie,—his assertions deserve belief; the more, since he looks well and is free from all neurasthenic symptoms, and, in the society of men, not the slightest suspicion rests on him. An open, free, and manly bearing is developed.

Moreover, since, of his own will, he now and then indulges in coitus with pleasure, and occasional pollutions are induced by lascivious dreams which concern women, there can be no doubt of the favorable change of his *vita sexualis*; and it is presumable that the hypnotic suggestions have developed into auto-suggestive inclinations, which direct his feelings, thoughts, and will. Probably the patient will always remain a *natura frigida*; but he more often speaks of marriage, and of his intention to win a wife as soon as he has become acquainted with a sympathetic lady.

In July, 1889, I received a letter from his father, which told me of his good health and conduct.

On May 24, 1890, by chance, I met my former patient, while on a journey. His bright, healthful appearance allowed the most favorable opinion of his condition. He told me that he still had sympathetic feeling for some men, but never anything like love. He occasionally had pleasurable coitus with women, and now thought of marriage.

I hypnotized him, in the former manner, to try him, and asked for the commands I had given him. In a deep condition of somnambulism, and in the same tone of voice as formerly, the patient repeated the suggestions he had received in December, 1888,—an excellent example of the possible duration and power of post-hypnotic suggestion.

Case 140. Psychical Hermaphroditism; Improvement with Hypnotic Treatment.—Mr. von K., aged 23; of distinguished family; well endowed mentally; scrofulous as a child. His father is said to have been dissipated. His father's brother is said to have been subject to contrary sexuality.

The patient states that, when only seven years old, he had a peculiar inclination for male persons. It was particularly coachmen and servants having moustaches for whom he showed partiality at that time. He experienced a peculiar delightful sensation when he pressed himself against such persons.

The patient entered the cadet corps early, and there he was seduced

into mutual onanism, and also learned imitatio coitus inter femora viri. At the age of seventeen he had coitus with a prostitute for the first time. He performed the act perfectly, but had not the slightest pleasure in it; and he learned that this kind of gratification amounted to nothing, or that he must be different from other young men.

Nevertheless, he often had coitus, and contracted gonorrhœa. After this he experienced an increasing aversion for the female sex, and indulged in coitus less and less frequently; in fact, only when, with intense libido, he could not gain opportunity for intercourse with men. His inclination for men predominated more and more, and he was attracted exclusively by those handsomely formed, and having as little beard as possible. He descended to the most revolting practices,—coitus buccalis, active and passive pederasty.

The patient was deeply ashamed of such depravity, and was constantly endeavoring to get into better ways by means of coitus with women. But he came to the despairing conclusion that his moral strength was insufficient, that he was indifferent about intercourse with women, or that it was repugnant to him; and that he was created for sexual intercourse with persons of his own sex. In fact, he had never dreamed of women, but always of men; and that at a time, too, when he had no suspicion of the difference between the sexes.

The patient comes for consultation, because he sees that he is jeopardizing the happiness of his whole life, and recognizes the unnaturalness and immorality of his sexual life. He does not regard his condition as hopeless; for he has no horror of women, and three weeks ago he had successful coitus with one, though it was devoid of all pleasure and mental satisfaction. He has no doubt that he was really created to love men; but, owing to acquired neurasthenia, in the sexual act with a man he experiences no such pleasure as formerly. He had given up his position as an officer, because the soldiers excited him so sexually that he feared he might compromise himself.

The patient is devoid of degenerative signs. His appearance is perfectly masculine, and his genitals are normal. Examination of the semen revealed abundance of spermatozoa. The penis is large and well developed; the growth of hair ad genitalia, as well as on the rest of the body, is abundant. The patient has masculine tastes, but has never been partial to drinking and smoking. A neuropathic eye is all that points to a nervous constitution.

In his sexual acts with men, he states that, as a rule, he has felt as a man, only now and then as a woman.

An attempt at hypnosis leads to lethargy, with cataleptic condition of the muscles, and the opportunity is used to impart suitable suggestions.

After the fourth sitting he expressed himself as satisfied, and wondered that men made no impression on him. He wished to try his fortune with women, but was afraid that he was impotent.

After the sixth sitting, without advice, he attempted coitus cum muliere. His libido was very great, but inter actum this and erection left him.

After the ninth sitting the patient was forced to discontinue treatment, owing to business that called him home. He was satisfied, in that he felt indifferent and capable of resistance to men. He felt sure that he would not relapse into his former vices. At the same time, he had not the slightest interest in the female sex.

Case 141. Mr. X., aged 31, chemist, comes of a neuropathic family, and from childhood has been nervous, emotional, and apprehensive, and afflicted with migraine. He remembers distinctly that, when a very small boy, he had a lustful feeling at the sight of the half-naked persons in the work-shop at his father's house, and felt drawn to them. When he began school, he felt in the same way toward his companions. At the age of eleven, without teaching, he began to masturbate, during which he thought of his comrades. Later there were enthusiastic friendships. His vita sexualis gained the upper hand. As he grew up, women also interested him, but his chief interest was in men of the higher circles of society. He felt that this inclination was abnormal, and sought the acquaintance of puellis; he often had coitus, but never with any real pleasure. Thus he became more and more given to contrary sexuality, practiced mutual masturbation and coitus inter femora viri, and occasionally gave himself up to passive pederasty; but he soon abandoned this, on account of the pain it caused him.

He asserts that he feels perfectly masculine, and has never had female inclinations. Skeleton and attitude perfectly masculine; strabismus; abundant beard; genitals entirely normal. No aversion to the female sex. Occasional coitus with puellis, but without satisfaction. The patient feels exceedingly unhappy, and clearly recognizes his abnormal position; at any price, he wishes to be freed from his homo-sexual inclination, and made capable of marriage. "It is terrible to have to act a farce constantly." At the first attempt at hypnosis, after Bernheim's method, the patient passes into a state of deep lethargy. He proves to be very susceptible to suggestion, and suitable suggestions are imparted. After the fourth sitting, he states, with gratitude, that men become indifferent, and he begins to have pleasure in coitus; but he did not feel mentally satisfied, owing to the fact that he was limited to puellæ publicæ. After the fourteenth sitting he declared that he required no more treatment. He was in love with a young lady, and thought of marrying her. He asked for her hand, and was refused. Soon after, while he was on a journey in Italy, men interested him again. He had a relapse, and asked for further treatment. A few sittings re-established the *status quo ante*.

Case 142. *Psychical Hermaphroditism; Successful Treatment by Hypnotic Suggestion.*—Mr. von Z., aged 29. He asserts that he comes

of healthy grandparents; of a healthy father, but of a nervous mother. He is an only child, and was petted by his mother. At the age of eight he was powerfully excited sexually by a male servant, who showed him pornographic pictures and his penis.

When twelve years old, Z. fell in love with his tutor. On going to sleep, the naked form of this man appeared before him. He thought of himself as in a female *rôle* in relation to him, and thought to marry him some time.

At the age of thirteen, at a private ball, his fancy was excited by a young governess, and, at fifteen, he fell in love with a young lady. He remained very excitable sensually; but, thereafter, exclusively so to men pleasing to him. Masturbation was not practiced.

At the age of twenty the patient became neurasthenic (ex abstinentia?). He now attempted coitus, but was not successful. On the other hand, he had intense desire on an occasion when he saw a naked man in a steam-bath. The latter noticed his excitement, approached him, and performed masturbation on him, giving the patient intense delight. He felt powerfully attracted to this man, and, thereafter, allowed him to repeat the act. In the meantime, there were attempts at coitus with females, which always ended in a fiasco. The patient was much troubled by this, and consulted physicians, who explained his impotence as due to nervousness, and thought that it would soon pass off.

Until his twenty-fifth year his sexual indulgence consisted of masturbation by the beloved man about once a month. At this time he last felt attracted to a woman. It was to a young peasant-girl. She would not accede to his wishes. Since his lover was also unattainable, the patient began to masturbate alone. With this, his neurasthenia increased. For this reason he was unable to finish his studies; he became shy, dysthymic, abulic, and now vainly tried cures at various hydropathic establishments. On account of continued severe (cerebro-spinal) neurasthenia, the patient came to me for advice, in the latter part of February, 1890.

A tall, slim man, of aristocratic and decidedly masculine manners. Neuropathic appearance; large ears, the lobes of which run into and lose themselves in the skin of the cheeks. Genitals perfectly normal. The usual picture of cerebro-spinal neurasthenia of moderate degree. Great depression; complaint of being dissatisfied with life, even to *tedium vitae*; he is pained by his sexual anomaly, especially because he is urged by his family to marry.

He is interested in women only mentally, not physically. Sexually, his only interest is in men of distinction. His dreams have never been about persons of the opposite sex, but of those of his own sex. In these lascivious dreams he has always seen himself in the *rôle* of a woman.

The most refined woman has never been able to induce erection or even libido in him.

His sexual intercourse with men has consisted of passive or mutual masturbation. He had practiced solitary onanism only infrequently and *faute de mieux*. During the last five months he had abstained, and had had no male intercourse since August, 1889.

An attempt at hypnosis, after Bernheim's method, failed; prolonged stroking of the brow induced deep lethargy, with catalepsy.

This method is used, in order to carry out suggestive treatment of this patient, who is so worthy of compassion. The hypnotic state is always the same; he cannot be brought into a state of somnambulism.

At the third sitting the patient is given the suggestions: ever despise onanism and male love; find women beautiful, and dream of them.

After the sixth sitting (March 10th) a moral transformation takes place in his mind. The patient becomes quieter, feels more free, and dreams now and then of women, and no longer of men, finding that the latter have become indifferent to him. He gratefully states that he has no more inclination to masturbation. He approaches women, but he notices that they have not the least attraction for him.

On March 19th, business called the patient home; so that the treatment had to be discontinued.

On May 17, 1890, the patient returned for treatment. He asserted that he had not masturbated in the interval, and that he had resisted his inclination to men. Too, he had not dreamed of men, but twice of women, though only platonically. His cerebral asthenia (*ex abstinentia?*) had increased. He apparently suffers for the want of mental and sensual satisfaction of his *vita sexualis*; for homo-sexual love and masturbation have become impossible for him, and intercourse with women is denied him. The patient is thus painfully depressed to the extent of *tedium vitae*.

He is now subjected to anti-neurasthenic treatment (hydro-therapeutic and electro-therapeutic), and the treatment by hypnosis is resumed. Only after ten weeks of painstaking treatment did the neurasthenic symptoms disappear. Progressing parallel with this, there was a change of his mental personality.

The patient was gratified to note that he grew stronger; that his sexual life no longer played a dominating part. Though he felt more drawn toward men than women, yet he easily resisted homo-sexual desires. His former *boudoir* became a work-room; instead of to adornment and frivolous reading, he gave himself to walks in the mountains and forests. On account of the danger of a fiasco, the initiative in hetero-sexual attempts was left to the patient.

It was not until the fourteenth week of treatment that the patient made an attempt. It was perfectly successful. The patient became happy, and sound in body and mind, and expressed the best hope of his future, even having thoughts of marriage.

He experienced increasing pleasure in normal sexual intercourse;

he occasionally had lascivious dreams of women, and no longer dreamed of men.

The patient stopped treatment at the end of September. He felt perfectly normal in hetero-sexual intercourse, devoid of neurasthenia, and had thoughts of marriage. Yet he freely confessed that he still always had erections at the sight of a naked, handsome man; though he could easily resist the desires that arose, and in dreams had exclusively "*relations avec la femme.*"

In April, 1891, I again saw the patient, and he was in the best of health. He regarded his *vita sexualis* as perfectly normal; for he had coitus regularly with pleasure and full virility, dreamed only of women, and had no inclination to masturbation. Yet he made the interesting confession that frequently, post coitum, he still had a temporary "*gout pour l'homme,*" which he could easily control. He thought he was lastingly cured, and was occupied with thoughts of marriage.

Case 143. Congenital Contrary Sexual Feeling. Successful Removal of Homo-Sexual Feelings by Suggestions.—L., doctor of philosophy, aged 34, German, consulted me, in the spring of 1888, on account of perversion of his *vita sexualis*, and asked whether he could not be freed from it by means of hypnotic treatment.

Patient came of a healthy mother, in whose family, for generations, there had been neither insanity nor nervous disease. He, like his only brother, is much like his father mentally. His brother is very sensual, and also psychically abnormal, and given to over-indulgence in drink.

His father was a neuropathic, eccentric man. Nothing is known of any abnormal sexual manifestations in him, though, like all his brothers, he had a tendency to over-indulgence in alcohol.

This vice seems to have been inherited from his mother (grandmother of patient), who was a notorious drinker. The father of this woman (great-grandfather of patient) was also a great drinker. No other ancestral history was obtainable.

Patient states that from childhood he was nervous and easily excited. He learned very easily, and had a talent for languages. He was always interested in art, particularly in music and poetry. His education was excellent, and given at home. When he was thirteen, his father told him that he should never touch his genitals, for it was wrong to do so, and to do it might bring unhappiness.

Occasionally his father showed him pictures of syphilitic diseased conditions, etc., in an anatomical museum, and the patient was disgusted and frightened. He believed that his later fear of sexual intercourse with women was partly nourished by this early erroneous teaching.

However, the patient seeks the principal cause of his sexual perversion in a defect of organization. When a small boy, he had a silly enthusiasm for companions. He also remembers that, at that time, he had a

desire only for girlish games, and preferred the society of girls. When a boy, he had a passion for crocheting and embroidering. At fourteen he was still without any sexual knowledge, and fell into the hands of a pederast. He ran away, frightened, when he learned what was to be done with him. When fifteen, a sympathetic companion was accustomed to lay his head in the patient's lap. This gave the patient a peculiar pleasurable feeling, but he knew no explanation of it. At sixteen he had the first erections—at the sight of men.

At twenty he first learned that his sexual condition was perverse, and recognized the fact that what he had taken for friendship was love. He was much frightened at the discovery, and much pained. His sympathies were directed toward young men of the upper class that were handsomely formed and of pleasing appearance.

The society of ladies had no effect on him. He was never attracted by the charms of the opposite sex. In his fifteenth year he had a sensual dream, in which he thought a girl of elegant figure sat opposite him, on a sofa.

In the theatre it was only the art of the actresses that he admired; the actors excited his real interest.

Drinking and smoking had always been very repugnant to him. Hunting and gymnastics, and other masculine occupations, had no interest for him. He did not enter the army, because his general physical weakness precluded it.

The patient has but little sexual desire. He has never had any impulse to satisfy himself with persons of his own sex. Some years ago, when he first tried to embrace a man lovingly, he had powerful erection and became greatly excited; but he was able to control himself and to repel his lover. Thereafter he always avoided such attempts. It was only seldom that he became powerfully excited sexually, and even then he was not driven to satisfy himself. He was never given to onanism. During the establishment of puberty, the patient had frequent dreams with pollutions, but these were not induced by erotic fancies of any kind.

Some years ago, for a long time, ejaculation was always induced by the embrace of a sympathetic man, but this condition of irritable weakness disappeared. As years passed, the patient, who had always had a desire for marriage and a family, became anxious on account of the conviction that the inclination toward females, for which he had hoped, would never come. It became more and more clear to him that he was abnormal, and he began to have fears about his virility and his future happiness in life.

In order to test the matter, he sought a brothel. He found a prostitute of beautiful form; he had the best will to satisfy himself that he was virile; the woman did all she could, but in vain. There was no erection, and he withdrew, ashamed. New attempts, under the most favorable circumstances, were likewise failures, though the patient

brought his imagination to his aid, and thought himself to be embracing a man instead of a woman.

He now realized that his ideal—to consummate marriage—was impossible. He felt himself very unfortunate, and dissatisfied with life. Besides, it forced itself upon him that morally he was lowered, because he could not overcome his inclination for his own sex, and his friendship for respectable men of his circle was degraded by sexual feelings. In his consultation with me, the patient was unending in the description of his painful situation. His ideal was marriage. He longed for it, for purely ethical reasons. He thought of it as something holy; but the begetting of children, the sexual act, was very repugnant to him. At the same time, he saw that he could not really marry without being potent. Would not hypnotic suggestion exercise a favorable influence on his sexual life? He had not the energy of a man of normal sexual condition. He seemed to himself to be all wrong. He would endure all—to be poor and miserable—if he could but have a normal sexual inclination.

When the patient was gently told of the congenital and deep constitutional significance of his sexual anomaly, and shown that, therefore, the creation of a normal sexual condition was doubtful, he thought that he would be satisfied to remain in his condition. But he wished to know whether it were not possible to eradicate his inclination for men, without attempting to create an equivalent for women; and if, in hypnosis, it could not be suggested to him that, in the future, men be a matter of indifference to him, and that, in intercourse with his friends, he no longer be excited sexually. Such a result would elevate very much his moral feeling, and make him satisfied and unembarrassed in social relations with his friends.

The possibility of such suggestive removal of feelings by hypnosis could not be gainsaid, though he was in doubt as to whether he could be hypnotized or not, since the hypnoscope had proved to have no effect upon him.

Out of pity and scientific interest, I decided to make an immediate attempt at hypnosis, after Bernheim's method.

The patient passed easily into a condition of deep lethargy, and, in a drawling voice, repeated the following suggestion: "I feel that, from this time, I am sexually indifferent to men; and, that a man is as sexually indifferent to me as a woman."

When I counted three,—having suggested previously that he awake at three,—the patient came to himself, as if out of a deep sleep, and performed immediately the post-hypnotic suggestion to open the door of the stove. He said that he had not lost consciousness entirely, that he had felt as one paralyzed and without will, and that he had felt a peculiar creeping sensation in all his limbs.

After five days the patient came again. In manner he was a different person, and he said, joyfully, that he felt like another man. Energy and will-power—the loss of which he had felt so keenly—had

returned. He felt, now, entirely unembarrassed toward men, and had a new joy in living.

The following seven days he was hypnotized. Hypnosis is no longer as deep as at first, though the suggestion is always accepted and repeated. However, he is quite profoundly influenced; for, the suggestion given, he sleeps on, in a state of lethargy, for ten minutes, and has to be awakened by suggestion. This always occurs as if from a deep sleep,—slowly, and through a stage of somnolence.

After the eighth sitting the patient found himself well and happy, and in possession of full self-confidence. He had the feeling and the evidence that men had no influence on him.

He thought he could dispense with hypnotic treatment, and gratefully took his leave, with the promise that, should the influence of the suggestion fade, he would come again. Since then, I have heard nothing more of this interesting patient, and I have reason to hope that he remains improved.

The patient is, in all respects, of masculine appearance; beard abundant. Physically, with the exception of slight neurasthenic symptoms, he presents nothing remarkable. Genitals normal. (Personal case. *Internat. Centralblatt*, etc., Bd. i, Heft 1.)

Case 144. X., aged 33; single; tall. Mentally, of small endowment; comes of tainted family. Paternal grandfather died at thirty-four with a mental disease, which is said to have developed as a result of onanism and spermatorrhœa. His father and brother suffered with disturbances of the sexual functions. There was insanity in the mother's family; other branches of the family were noted for their irritable and eccentric character.

The patient has too small a head, a retreating brow, abnormal ears, sparse growth of hair, and a hernia, which is probably congenital. Genitals large, and normally developed.

Great impressionability; neuropathic constitution; occasional tædium vitæ. For several years, peculiar, imperative ideas: that he is a locomotive; a horse; a velocipede; and, that he must act accordingly. From his earliest youth, contrary sexual feeling (congenital). Horror feminæ; sexual inclination toward boys; satisfaction by sensual contact, and, *faute de mieux*, masturbation. One day he had an affair with a boy dressed in gray, which made a deep impression on him. Since then, while masturbating, the image of the boy comes into his mind; and he cannot see gray clothes without having powerful erections. On the advice of physicians whom he consulted, he attempted coitus with women, but was cold and impotent, notwithstanding the assistance of memory-pictures of the boy dressed in gray; and he finally gave up the efforts.

March 27th, first hypnotic sitting. Small result. He resists, and says his fancy keeps him from going to sleep.

In a further series of sittings he declares that he experiences unfavorable effects,—is more excited, and troubled by imperative ideas and the desire to masturbate. He makes fun of the physician and hypnotism, and offers much resistance, with the expression that hypnotism is good for nothing, and only makes people crazy.

However, gradually it became possible to induce somnambulism. After twenty-five sittings the patient confessed that he was better, and that he was less troubled with imperative ideas and onanism. The sittings were repeated every week or two. The patient felt mentally and morally well, ceased to masturbate, but, at the end of treatment, was indifferent toward the opposite sex (Dr. Ladame, *Revue de l'hypnotisme*, September 1, 1889).

In the two foregoing cases there was successful suggestive removal of homo-sexual feelings,—a result which, as Case 143 shows, means a great improvement for such unfortunate individuals, in that it protects them from shame and the law. An entirely different and phenomenal result is presented by the following case, reported by Dr. v. Schrenk-Notzing in the *Wiener internat. klin. Rundschau*, October 6, 1889, No. 40, which is a case of effemination. It discloses a new method of treatment of urnings; but it is necessary to guard against illusions. Only where hypnosis can be deepened to somnambulism, are decided and lasting results to be expected:—

Case 145. Congenital Contrary Sexual Instinct Improved by Hypnotic Suggestion.—R., official, aged 28. January 20, 1888, he sought medical advice. He is the brother of the patient who is the subject of Case 135, and, therefore, of a badly tainted family (*v. supra*). Toward the end of treatment, he confessed that he was the author of the autobiography which was published as Case 83 in the fifth edition of this work, and it is here reproduced:—

“ In brief, my abnormality consists of this, that in sexual relations I feel myself to be completely feminine. Since my earliest youth, in my sexual acts and fancies, I have always had before my eyes only images of masculine beings and masculine genitals.

“ Until I went to the University, I found nothing in this (I had never spoken with others about my fancies, but rather, while at the Gymnasium, lived a silent and retired life).

“ While at the University, it struck me that female persons made not the slightest impression on me. Since then, in houses of prostitution, etc., I have attempted coitus, or only to obtain an erection, with women, but always in vain.

"Erection ceased immediately, as soon as I was in a room alone with a woman. At first I considered it impotence, though, at the same time, I was so excited sexually that I had to masturbate several times during the day in order to sleep.

"Quite different, however, has been the development of my feelings toward the masculine sex, and it has grown stronger every year. At first they expressed themselves in extraordinary, enthusiastic friendship for certain persons, under whose windows at night I would wait for hours; whom in all possible ways I would try to meet on the streets, and with whom I sought to come in contact. I wrote such persons the most passionate letters, in which, however, I was shy in expressing my feelings too plainly. Later, after my twentieth year, I came to understand the essential nature of my inclinations, particularly from the sensual pleasure I experienced as soon as I came in direct contact with any of these friends. These persons were all finely built men, with dark hair and eyes. I have never had my feelings excited by boys. Real pederasty is absolutely incomprehensible to me. About this time (twenty-second to twenty-third year) the circle of my beloved friends grew more and more extensive. Now I can scarcely see a handsome man on the street without having the wish to possess him excited in me. The fact is, I especially love persons of the lower classes, whose powerful forms attract me,—soldiers, policemen, car-drivers, etc.,—i.e., all that wear uniforms. If one of these returns my look, I feel a kind of thrill go through my whole body. I am especially excitable in the evening, and merely the heavy tread of a soldier is alone sufficient to induce the most powerful erections. I take a very peculiar pleasure in following such persons and looking at them. As soon as I learn that they are married, or that they consort with girls, my excitement very frequently ceases.

"A few months ago I became able to control my inclinations to such an extent that they were not directly noticeable. About this time I followed a soldier who seemed likely to acquiesce in my desire, and spoke to him. For money he was ready for anything. At once I was filled with a most violent longing to embrace and kiss him, and the danger of being noticed did not deter me from doing it. He had scarcely grasped my genitals when ejaculation followed. With this meeting, I had finally attained the long-desired goal of my life. I knew that my whole nature would find its happiness and satisfaction in it, and from this time I gave myself up entirely to the effort to find a person whom I could love, and from whom I should never part. For my acts I do not experience the slightest twinge of conscience.

"To be sure, in quiet moments, I very well appreciate the difference between my way of thinking and the way of the world; as a lawyer, too, I naturally recognize the dangers of a relation of the kind I desire; but, as long as my entire nature does not change, I shall not be able to

give up the opportunities offered me. Nevertheless, I should be willing to undergo any cure to be freed from my abnormal condition.

"I recognize my feminine feeling, among other things, in the fact that any sensual idea in connection with a woman must be forced, and seems unnatural to me. I am also sure that my respect for a woman—I move much in the society of ladies, and enjoy it—would change immediately to repugnance, were I to notice any sensual inclination in her toward me. In my dreams and sensual fancies of men, I always think of myself in such positions with them that their faces are always toward mine. My greatest delight would be to have a powerful man, undressed, take me in his arms with a force I could not resist. In such situations I always think of myself in a passive *rôle*, and have to force my feelings, in order to think of myself in any other position. In this, I am truly feminine. Great as my desire may be to approach certain persons, my struggle is as great not to allow this to be noticed. Moustaches, abundance of hair, and even dirt, seem to be especially enticing. It is hardly necessary to say that, to me, my condition, with reference to society, is absolutely desperate; and, if I had not the hope of finding a being that would understand me, life would be scarcely endurable. I feel that sexual commerce with a man is the only means of successfully combating my impulse to onanism. Though this has a very bad effect on me, I cannot keep myself from it constantly, because, as I have often found, I will be even more weakened by pollutions at night and persistent erections during the day.

"Up to this time I have truly loved but two men. Both were officers, remarkably endowed mentally, handsomely and gracefully formed, and of dark skin and eyes. I became acquainted with the first at the University. I was madly in love with him, and suffered unspeakably on account of his indifference. I spent nights under his window, simply to be near him. When he was officially transferred, I was in despair.

"Soon after, I became acquainted with an officer that resembled him, who likewise enchain'd me at first sight. I sought every opportunity to meet him, spent the day in the streets, and at places where I hoped to get a sight of him. I knew how the blood came into my face when, unsuspected, I saw him. When I saw him friendly with others, I could scarcely contain myself for jealousy. When I sat near him, I was impelled to touch him. I could scarcely conceal my excitement when I touched his knee or thigh. I never ventured, however, to express my feelings to him; for, from his conduct, I was convinced that he would not understand them or share them.

"I am twenty-seven years old, of medium height, and well-developed. and would be considered handsome. My chest is somewhat narrow, hands and feet small, and voice weak. Mentally, I think I am well endowed; for I passed the State examination with distinction, speak several languages, and am a good painter.

"In my calling I pass for one that is industrious and conscientious. My acquaintances think me cold and peculiar. I do not smoke, do not play games, and cannot sing or whistle. My gait, like my voice, is somewhat affected. I have much taste for elegance, love adornment, sweet-meats, and perfumes, and prefer the society of ladies."

From Dr. von Schrenk's notes of the case, it is learned, further, that social and criminal deterrents, on the one hand, and uncontrollable desire for his own sex, on the other, caused violent mental struggles, and made life unendurable. For this reason the patient confided in the physician. January 22, 1889, hypnotic treatment, with suggestion, after the method of Nancy, was begun with the patient. Gradually it became possible to induce somnambulism.

The suggestions were made with reference to indifference to men, and ability to resist them, and to increase of interest in women; masturbation was thus forbidden, and women substituted for men in lascivious dreams. After a few sittings pleasure at sight of women was induced. At the seventh sitting successful coitus was suggested; this was fulfilled.

During the next three months the patient remained, under the influence of occasional hypnotic suggestions, in the full possession of normal sexual functions. April 22, 1889, there was a relapse, induced by a companion. At the next sitting, remorse and shame. As expiation, coitus with a woman in the presence of his seducer.

The patient complained that coitus with women below him in station did not satisfy his æsthetic feelings. He hoped to find satisfaction in a happy marriage. After forty-five sittings (May 2, 1889) the patient considered himself cured. Treatment ceased. He became engaged to a young lady some weeks later, and presented himself again, after six months, as a happy bridegroom. He thought that, in his happiness with his wife, he had a sure preventive against relapse.

The author emphasizes the fact that the hypnotic treatment had no injurious collateral effect, and leaves undecided the question as to whether the cure is permanent or not, with R.'s very bad heredity. But he expresses the conviction that, in case of relapse, renewed hypnotic treatment would not be contra-indicated.

Since the incredible result of this case interested me exceedingly, as did its further course, I wrote to the author, requesting information concerning his patient.

Dr. v. Schrenk very kindly placed at my disposal the following letter, which he had received from the patient in January, 1890:—

"By means of suggestive treatment given me by Baron Schrenk, for the first time I became possessed of the psychical condition that

permitted me to have intercourse with a woman, which, up to that time, in spite of repeated efforts, I had been unable to do successfully.

"Since my æsthetic needs were unsatisfied by intercourse with prostitutes, I thought to find my real salvation in matrimony. The earlier friendly inclination toward a lady known in my youth offered me the opportunity, the more because I believed that she, of all others, would be in a position to awaken feelings for the opposite sex which were absolutely foreign to me. Her character,—*i.e.*, our harmony,—is in such accord with my inclinations that I am fully convinced that I shall also find complete psychical satisfaction. This conviction has not changed during the eight months of my engagement.

"I intend to be married in about four weeks.

"As far as my position with respect of my own sex is concerned, my power of resistance—and this is the lasting positive result of this treatment—is absolutely changed in degree. While previously it was impossible for me to overcome an intense sexual excitation when I saw a finely formed car-driver, to-day, in the company of my former lovers, I am without sexual excitement. At the same time, I must add that now, as formerly, their society has a certain attraction for me, though it is not to be compared with my earlier passion.

"On the other hand, I have refused repeated persuasions to indulge in sexual intercourse with men, without expending much force in resistance,—persuasions which formerly I should have been unable to resist. I may say, indeed, that it is a feeling of compassion for my former lovers, that have proved their passionate devotion to me, which keeps me from directly repulsing them. My action seems to be due to a feeling of duty, rather than to inner need.

"Since the conclusion of treatment, I have not consorted with prostitutes. This circumstance, and the numerous letters and persuasions from my former lover, may well be the reason why, in the eight months that have elapsed, I have allowed him to persuade me to sexual intercourse on three or four occasions. At these times I have always been conscious of being completely master of myself, as compared with my earlier passionate condition in like situations, as the violent reproaches of my friend convinced me. *I always feel a certain unconquerable repugnance, which cannot be based on moral grounds, but which, I believe, must be attributed to the treatment.* I no longer feel a love for him in the former sense. Besides, since the treatment, I have sought no opportunities for sexual intercourse with men, and I feel no need of it. But, formerly, not a day passed on which I did not feel impelled to it, so that at times I was unable to think of anything else. Awake or dreaming, ideas of sexual content are very infrequent.

"I may express the belief that my marriage, that is to take place in a few weeks, and the much desired change of place that is bound to it, will entirely remove the residuum of my earlier condition. I conclude

these lines with the honest assurance that, subjectively, I am another man, and that this change has restored the mental equilibrium that was previously wanting."

The foregoing words, which Dr. v. Schrenk completes with the verbal statement of the patient that he had not practiced onanism again, are a brilliant proof of the lasting effect of post-hypnotic suggestion. I consider the hetero-sexual instinct of the patient to be the artificial creation of his excellent physician; and the patient himself seems to recognize this, in that he speaks of a repugnance which "does not rest on moral grounds, but which depends on the treatment."

The further fate of this interesting patient may be learned from the following letter, kindly submitted by Dr. v. Schrenk:—

"Honored Sir: Having been home some days from my wedding-journey, I wish to send you a short report of my present condition. During the week before my wedding I was in great excitement, because I feared that I should be unable to perform certain duties. The impelling thoughts of my friend, who wished another meeting with me, at any price, had no effect on me. We had not seen each other since I heard from you last. [Receipt of the professor's letter.] However, I was much troubled with the thought that my marriage must be unhappy. Now, however, I have no anxiety. To be sure, on the first night, success was difficult,—to induce sexual excitation in myself,—but on the following night, and since, the influences needed for a normal man, I believe, would have been sufficient for me. I am also convinced that the harmony between us, which, of course, is mentally of long standing, will become more and more complete. A relapse to the former condition seems impossible. It is, perhaps, significant for my present condition, that I one night dreamed of my former lover, and that the dream was not sensual, and did not excite me sensually.

"I am satisfied with my present circumstances. I am, of course, well aware that my present inclinations are far from being of a degree equal to what they formerly were. I believe, however, that they will daily grow stronger. Already my former life is incomprehensible, and I cannot understand why I did not earlier think to overcome the abnormal sexual instinct by normal sexual indulgence. A relapse would now be possible only with an entire change of my mental life; and, in a word, it seems impossible.

"Your obedient servant,

—d."

From a letter of Dr. v. Schrenk's, of December 7th, I extract the following:—

Excerpt 2

(b) *With Persons of the Same Sex—Pederasty; Sodomy in its Strict Sense.*

German law takes cognizance of unnatural sexual relations only between men; Austrian, between those of the same sex; and, therefore, unnatural relations between women are punishable.

Among the immoralities between men, pederasty (*immissio penis in anum*) claims the principal interest. Indeed, the jurist thought only of this perversity of sexual activity; and, according to the opinions of distinguished interpreters of the law (Oppenhoff, "Stgsb.," Berlin, 1872, p. 324, and Rudolf and Stenglein, "D. Strafgesb. f. d. Deutsche Reich," 1881, p. 423), *immissio penis in corpus vivum* belongs to the criminal act covered by § 175.

According to this interpretation, legal punishment would not follow other improper acts between male persons, *so long as they were not complicated with offense to public decency, with force, or undertaken with boys under the age of fourteen.* Of late this interpretation has again been abandoned, and the crime of unnatural abuse between men has been assumed when merely acts *similar to cohabitation* were performed.¹

The study of contrary sexual instinct has placed male love of males in a very different light from that in which it, and particularly pederasty, stood at the time the statutes were framed. The fact that there is no doubt about the pathological basis of many cases of contrary sexual instinct shows that pederasty may also be the act of an irresponsible person, and makes it necessary, in court, to examine not merely the deed, but also the mental condition of the perpetrator.

The principles laid down previously must also be adhered to here. Not the deed, but only an anthropological and clinical judgment of the perpetrator can permit a decision as to

¹ How difficult, unpleasant, and dangerous for the jurist judgment of these "coitus-like" acts for the establishment of the objective fact of the crime may be is well shown by an article on the punishableness of male intercourse, in the *Zeitschr. f. d. gesammte Strafrechtswissenschaft.*, Bd. vii, Heft 1, as well as by a similar one in Friedreich's *Blätter f. ger. Medicin*, 1891, Heft 6. *Vide*, further, Moll, *Conträre Sexualempfindung*, p. 223 *et seq.*, and Bernhardi, *Der Uranismus*, Berlin, 1882.

whether we have to do with a perversity deserving punishment, or with an abnormal perversion of the mental and sexual life, which, under certain circumstances, excludes punishment. The next legal question to settle is whether the contrary sexual feeling is congenital or acquired; and, in the latter case, whether it is abnormal perversion or moral perversity.

Congenital contrary sexual instinct occurs only in predisposed (tainted) individuals, as a partial manifestation of a defect evidenced by anatomical or functional abnormalities, or both. The case becomes clearer, and the diagnosis more certain, if the individual, in character and disposition, seems to correspond entirely with his sexual peculiarity; and if the inclination toward persons of the opposite sex is entirely wanting, and horror of sexual intercourse with them is felt; and if the individual, in the impulses to satisfy the contrary sexual instinct, shows other anomalies of the sexual sphere, such as more pronounced degeneration in the form of periodicity of the impulse and impulsive conduct, and is a neuropathic and psychopathic person.

Another question concerns the mental condition of the urning. If this be such as to remove the possibility of moral responsibility, then the pederast is not a criminal, but an irresponsible insane person. This condition in congenital urnings is apparently less frequent than another. As a rule, these cases present elementary psychical disturbances, which do not remove responsibility. But this does not settle the question of the responsibility of the urning. The sexual instinct is one of the most powerful organic needs. There is no law that looks upon its satisfaction outside of marriage as punishable in itself; if the urning feels perversely, it is not his fault, but the fault of a condition natural to him. His sexual instinct may be æsthetically very repugnant, but, from his stand-point, it is natural. And, too, in the majority of these unfortunates, the perverse sexual instinct is abnormally intense, and their consciousness recognizes it as nothing unnatural. Thus they fail to have moral and æsthetic ideas to assist them in resisting the instinct. Innumerable normally constituted men are in a position to

overcome the desire for satisfaction of their libido without suffering from it in health. Many neuropathic individuals,—and urnings are almost always neuropathic,—on the contrary, become nervously ill when they do not satisfy the sexual desire, either as Nature prompts or in a way that is for them perverse.

The majority of urnings are in a painful situation. On the one hand, there is an impulse toward persons of their own sex that is abnormally intense, the satisfaction of which has a good effect, and is natural to them; on the other, is public sentiment which stigmatizes their acts, and the law which threatens them with punishment. Before them lies mental despair,—even insanity and suicide,—at the very least, nervous disease; behind them, shame, loss of position, etc. It cannot be doubted that, under these circumstances, states of necessity and compulsion may be created by the unfortunate natural disposition and constitution. Society and the law should understand these facts. The former must pity, and not despise, such unfortunates; the latter must cease to punish them,—at least, while they remain within the limits which are set for the activity of their sexual instinct.

As a confirmation of these opinions and demands concerning these step-children of Nature, it is permissible to reproduce here the memorial of an urning to the author. The writer of the following lines is a man of high position in London:—

“ You have no idea what a constant struggle we all—particularly those of us that have the most mind and finest feelings—have to endure, and how we suffer under the prevailing false ideas about us and our so-called immorality.

“ Your opinion that the phenomenon under consideration is primarily due to a congenital ‘ pathological ’ disposition will, perhaps, make it possible to overcome existing prejudices, and awaken pity for poor, ‘ abnormal ’ men, instead of the present repugnance and contempt. Much as I believe that the opinion expressed by you is exceedingly beneficial to us, I am still compelled, in the interest of science, to repudiate the word ‘ pathological ’; and you will permit me to express a few thoughts with respect of it.

“ Under all circumstances the phenomenon is anomalous; but the word ‘ pathological ’ conveys another meaning, which I cannot think suits this phenomenon; at least, as I have had occasion to observe it in very many cases. I will allow, *a priori*, that, among urnings, a far

Excerpt 3

in general, and the partiality which this sensitive man sometimes showed even for domestic animals,—where no one would think of sodomy. With S.'s mental character, extraordinary friendship for the youth G. may be easily comprehended. The openness of this friendship permits the conclusion that it was innocent, much rather than that it depended upon sensual passion.

The defendants succeeded in obtaining a new trial. The new trial took place on March 7, 1890. There was much evidence presented in favor of the accused.

The previous moral life of S. was generally acknowledged. The Sister of Charity who cared for G. in S.'s house, never noticed anything suspicious in the intercourse between S. and G. S.'s former friends testified to his morality, his deep friendship, and his habit of kissing them on meeting or leaving them. The anal abnormalities previously found on G. were no longer present. Experts called by the court allowed the possibility that they had been due simply to digital manipulations; their diagnostic value in any case was contested by the experts called by the defense.

The court recognized that the imputed crime had not been proved, and exonerated the defendants.

LESBIAN LOVE.¹

Where the sexual intercourse is between adults, its legal importance is very slight: it could come into consideration only in Austria. In connection with urningism, this phenomenon is of anthropological and clinical value. The relation is the same, *mutatis mutandis*, as between men. Lesbian love does not seem to approach urningism in frequency. The majority of female urnings do not act in obedience to an innate impulse, but they are developed under conditions analogous to those which produce the urning by cultivation.

These "forbidden friendships" flourish especially in penal institutions for females.

Kraussold (*op. cit.*) reports: "The female prisoners often have such friendships, which, when possible, extend to mutual manustupration.

"But temporary manual gratification is not the only purpose of such friendships. They are made to be enduring,—entered into systematically, so to speak,—and intense jealousy and a passion for love are

¹ Comp. Mayer, Friedreich's Blätter, 1875, p. 41.—Kraussold, Melancholie und Schuld, 1884, p. 20.—Andronico, Archiv di psich. scienze penali ed anthropol. crim., vol. III, p. 145.

developed which could scarcely be surpassed between persons of opposite sex. When the friend of one prisoner is merely smiled at by another, there are often the most violent scenes of jealousy, and even beatings.

"When the violent prisoner has been put in irons, in accordance with the prison-regulations, she says 'she has had a child by her friend.'"

We are indebted to Parent-Duchatelet ("De la prostitution," 1857, vol. i, p. 159) for interesting communications concerning Lesbian love.

According to this experienced author, repugnance for the most disgusting and perverse acts (coitus in axilla, inter mammæ, etc.) which men perform on prostitutes is not infrequently responsible for driving these unfortunate creatures to Lesbian love. From his statements it is seen that it is essentially prostitutes of great sensuality who, unsatisfied with intercourse with impotent or perverse men, and impelled by their disgusting practices, come to indulge in it.

Besides these, there are prostitutes who let themselves be known as given to tribadism; persons who have been in prisons for years, and in these hot beds of Lesbian love, ex abstinencia, acquired this vice.

It is interesting to know that prostitutes hate those who practice tribadism,—just as men abhor pederasts; but female prisoners do not regard the vice as indecent.

Parent mentions the case of a prostitute who, while intoxicated, tried to force another to Lesbian love. The latter became so enraged that she denounced the indecent woman to the police. Taxil (*op. cit.* p. 166, 170) reports similar instances.

Mantegazza ("Anthropol. culturhistorische Studien," p. 97) also finds that sexual intercourse between women has especially the significance of a vice which arises on the basis of unsatisfied hyperesthesia sexualis.

In many cases of this kind, however, aside from congenital contrary sexual instinct, one gains the impression that, just as in men (*vide supra*), the cultivated vice gradually leads to acquired contrary sexual instinct, with repugnance for sexual intercourse with the opposite sex.

At least Parent's cases were probably of this nature. The correspondence with the lover was quite as sentimental and exaggerated in tone as it is between lovers of the opposite sex; unfaithfulness and separation broke the heart of the one abandoned; jealousy was unbridled, and led to bloody revenge. The following cases of Lesbian love, by Mantegazza, are certainly pathological, and possibly examples of congenital contrary sexual instinct:—

1. On July 5, 1777, a woman was brought before a court in London, who, dressed as a man, had been married to three different women. She

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XVIII

THE PSYCHOGENESIS OF A CASE OF
HOMOSEXUALITY IN A WOMAN¹

(1920)

I

HOMOSEXUALITY in women, which is certainly not less common than in men, although much less glaring, has not only been ignored by the law, but has also been neglected by psycho-analytic research. The narration of a single case, not too pronounced in type, in which it was possible to trace its origin and development in the mind with complete certainty and almost without a gap may, therefore, have a certain claim to attention. If this presentation of it furnishes only the most general outlines of the various events concerned and of the conclusions reached from a study of the case, while suppressing all the characteristic details on which the interpretation is founded, this limitation is easily to be explained by the medical discretion necessary in discussing a recent case.

A beautiful and clever girl of eighteen, belonging to a family of good standing, had aroused displeasure and concern in her parents by the devoted adoration with which she pursued a certain lady 'in society' who was about ten years older than herself. The parents asserted that, in spite of her distinguished name, this lady was nothing but a coquette. It was said to be well known that she lived with a married woman as her friend, having intimate relations with her, while at the same time she carried on promiscuous affairs with a number of men. The girl did not contradict

these evil reports, but neither did she allow them to interfere with her worship of the lady, although she herself was by no means lacking in a sense of decency and propriety. No prohibitions and no supervision hindered the girl from seizing every one of her rare opportunities of being together with her beloved, of ascertaining all her habits, of waiting for her for hours outside her door or at a tram-halt, of sending her gifts of flowers, and so on. It was evident that this one interest had swallowed up all others in the girl's mind. She did not trouble herself any further with educational studies, thought nothing of social functions or girlish pleasures, and kept up relations only with a few girl friends who could help her in the matter or serve as confidantes. The parents could not say to what lengths their daughter had gone in her relations with the questionable lady, whether the limits of devoted admiration had already been exceeded or not. They had never remarked in their daughter any interest in young men, nor pleasure in their attentions, while, on the other hand, they were sure that her present attachment to a woman was only a continuation, in a more marked degree, of a feeling she had displayed of recent years for other members of her own sex which had already aroused her father's suspicion and anger.

There were two details of her behaviour, in apparent contrast with each other, that most especially vexed her parents. On the one hand, she did not scruple to appear in the most frequented streets in the company of her questionable friend, being thus quite neglectful of her own reputation; while, on the other hand, she disdained no means of deception, no excuses and no lies that would make meetings with her possible and cover them. She thus showed herself too brazen in one respect and full of deceitfulness in the other. One day it happened, indeed, as was sooner or later inevitable in the circumstances, that the father met his daughter in the company of the lady. He passed them by with an angry glance which boded no good.

¹ First published in *Zeitschrift*, Bd. VI., 1920; reprinted in *Samm-lung*, Fünfte Folge. [Translated by Barbara Low and R. Gabler.]

Immediately after, the girl rushed off and flung herself over a wall down the side of a cutting on to a railway line. She paid for this undoubtedly serious attempt at suicide with a considerable time on her back in bed, though fortunately little permanent damage was done. After her recovery she found it easier to get her own way than before. The parents did not dare to oppose her with so much determination, and the lady, who up till then had received her advances coldly, was moved by such an unmistakable proof of serious passion and began to treat her in a more friendly manner.

About six months after this episode the parents sought medical advice and entrusted the physician with the task of bringing their daughter back to a normal state of mind. The girl's attempted suicide had evidently shown them that the instruments of domestic discipline were powerless to overcome the existing disorder. Before going further it will be desirable, however, to deal separately with the attitude of her father and of her mother to the matter. The father was an earnest, worthy man, at bottom very tender-hearted, but he had to some extent estranged his children by the sternness he had adopted towards them. His treatment of his only daughter was too much influenced by consideration for his wife. When he first came to know of his daughter's homosexual tendencies he flared up in rage and tried to suppress them by threatening her; at that time perhaps he hesitated between different, though equally painful views—regarding her either as vicious, as degenerate, or as mentally afflicted. Even after the attempted suicide he did not achieve the lofty resignation shown by one of our medical colleagues who remarked of a similar irregularity in his own family, 'It is just a misfortune like any other'. There was something about his daughter's homosexuality that aroused the deepest bitterness in him, and he was determined to combat it with all the means in his power; the low estimation in which psycho-analysis is so generally held in Vienna

did not prevent him from turning to it for help. If this way failed he still had in reserve his strongest counter-measure; a speedy marriage was to awaken the natural instincts of the girl and stifle her unnatural tendencies.

The mother's attitude towards the girl was not so easy to grasp. She was still a youngish woman, who was evidently unwilling to relinquish her own claim to find favour by means of her beauty. All that was clear was that she did not take her daughter's passion so tragically as did the father, nor was she so incensed at it. She had even for a long time enjoyed her daughter's confidence concerning the love-affair, and her opposition to it seemed to have been aroused mainly by the harmful publicity with which the girl displayed her feelings. She had herself suffered for some years from neurotic troubles and enjoyed a great deal of consideration from her husband; she was quite unfair in her treatment of her children, decidedly harsh towards her daughter and over-indulgent to her three sons, the youngest of whom had been born after a long interval and was then not yet three years old. It was not easy to ascertain anything more definite about her character, for, owing to motives that will only later become intelligible, the patient was always reserved in what she said about her mother, whereas in regard to her father she showed no feeling of the kind.

To a physician who was to undertake psycho-analytic treatment of the girl there were many grounds for a feeling of discomfort. The situation he had to deal with was not the one that analysis demands, in which alone it can demonstrate its effectiveness. As is well known, the ideal situation for analysis is when someone who is otherwise master of himself is suffering from an inner conflict which he is unable to resolve alone, so that he brings his trouble to the analyst and begs for his help. The physician then works hand in hand with one part of the personality which is divided against itself, against the other partner in the conflict. Any situation but this is more or less unfavourable for

psycho-analysis and adds fresh difficulties to those already present. Situations like that of a proprietor who orders an architect to build him a villa according to his own tastes and desires, or of a pious donor who commissions an artist to paint a picture of saints, in the corner of which is to be a portrait of himself worshipping, are fundamentally incompatible with the conditions of psycho-analysis. It constantly happens, to be sure, that a husband informs the physician as follows, 'My wife suffers from nerves, so that she gets on badly with me; please cure her, so that we may lead a happy married life again'. But often enough it turns out that such a request is impossible to fulfil, *i.e.* that the physician cannot bring about the result for which the husband sought the treatment. As soon as the wife is freed from her neurotic inhibitions she sets about dissolving the marriage, for her neurosis was the sole condition under which maintenance of the marriage was possible. Or else parents expect one to cure their nervous and unruly child. By a healthy child they mean one who never places his parents in difficulties, but only gives them pleasure. The physician may succeed in curing the child, but after that it goes its own way all the more decidedly, and the parents are now far more dissatisfied than before. In short, it is not a matter of indifference whether someone comes to analysis of his own accord or because he is brought to it, whether he himself desires to be changed, or only his relatives, who love him (or who might be expected to love him), desire this for him.

Further unfavourable features in the present case were the facts that the girl was not in any way ill—she did not suffer from anything in herself, nor did she complain of her condition—and that the task to be carried out did not consist in resolving a neurotic conflict but in converting one variety of the genital organization of sexuality into the other. The removal of genital inversion or homosexuality is in my experience never an easy matter. On the contrary, I have found

success possible only under specially favourable circumstances, and even then the success essentially consisted in being able to open to those who are restricted homosexually the way to the opposite sex, which had been till then barred, thus restoring to them full bisexual functions. After that it lay with themselves to choose whether they wished to abandon the other way that is banned by society, and in individual cases they have done so. One must remember that normal sexuality also depends upon a restriction in the choice of object; in general, to undertake to convert a fully developed homosexual into a heterosexual is not much more promising than to do the reverse, only that for good practical reasons the latter is never attempted.

In actual numbers the successes achieved by psycho-analytic treatment of the various forms of homosexuality, which, to be sure, are manifold, are not very striking. As a rule the homosexual is not able to give up the object of his pleasure, and one cannot convince him that if he changed to the other object he would find again the pleasure that he has renounced. If he comes to be treated at all, it is mostly through the pressure of external motives, such as the social disadvantages and dangers attaching to his choice of object, and such components of the instinct of self-preservation prove themselves too weak in the struggle against the sexual impulses. One then soon discovers his secret plan, namely, to obtain from the striking failure of his attempt the feeling of satisfaction that he has done everything possible against his abnormality, to which he can now resign himself with an easy conscience. The case is somewhat different when consideration for beloved parents and relatives has been the motive for his attempt to be cured. Then there really are libidinal tendencies present which may put forth energies opposed to the homosexual choice of object, though their strength is rarely sufficient. It is only where the homosexual fixation has not yet become strong enough, or where there are considerable

rudiments and vestiges of a heterosexual choice of object, *i.e.* in a still oscillating or in a definitely bisexual organization, that one may make a more favourable prognosis for psycho-analytic therapy.

For these reasons I declined altogether holding out to the parents any prospect of their wish being fulfilled. I merely said I was prepared to study the girl carefully for a few weeks or months, so as then to be able to pronounce how far a continuation of the analysis might influence her. In quite a number of cases, indeed, the analysis divides itself into two clearly distinguishable stages: in the first, the physician procures from the patient the necessary information, makes him familiar with the premises and postulates of psycho-analysis, and unfolds to him the reconstruction of the genesis of his disorder as deduced from the material brought up in the analysis. In the second stage the patient himself lays hold of the material put before him, works on it, recollects what he can of the apparently repressed memories, and behaves as if he were living the rest over again. In this way he can confirm, supplement, and correct the inferences made by the physician. It is only during this work that he experiences, through overcoming resistances, the inner change aimed at, and acquires for himself the convictions that make him independent of the physician's authority. These two stages in the course of the analytic treatment are not always sharply divided from each other; this can only happen when the resistance maintains certain conditions. But when this is so, one may institute a comparison with two stages of a journey. The first comprises all the necessary preparations, to-day so complicated and hard to effect, before ticket in hand, one can at last go on to the platform and secure a seat in the train. One then has the right, and the possibility, of travelling into a distant country, but after all these preliminary exertions one is not yet there—indeed, one is not a single mile nearer to one's goal. For this to happen one has to make the journey itself from one station to

the other, and this part of the performance may well be compared with the second stage in the analysis.

The analysis of the patient I am discussing took this course of two stages, but it was not continued beyond the beginning of the second stage. A special constellation of the resistance made it possible, nevertheless, to gain full confirmation of my inferences, and to obtain an adequate insight on broad lines into the way in which her inversion had developed. But before relating the findings of the analysis I must deal with a few points which have either been touched upon already by myself or which will have roused special interest in the reader.

I had made the prognosis partly dependent on how far the girl had succeeded in satisfying her passion. The information I gleaned during the analysis seemed favourable in this respect. With none of the objects of her adoration had the patient enjoyed anything beyond a few kisses and embraces; her genital chastity, if one may use such a phrase, had remained intact. As for the lady who led a double life, and who had roused the girl's most recent and by far her strongest emotions, she had always treated her coldly and had never allowed any greater favour than kissing her hand. Probably the girl was making a virtue of necessity when she kept insisting on the purity of her love and her physical repulsion against the idea of any sexual intercourse. But perhaps she was not altogether wrong when she vaunted of her wonderful beloved that, aristocrat as she was, forced into her present position only by adverse family circumstances, she had preserved, in spite of her situation, a great deal of nobility. For the lady used to recommend the girl every time they met to withdraw her affection from herself and from women in general, and she had persistently rejected the girl's advances up to the time of the attempted suicide.

A second point, which I at once tried to investigate, concerned any possible motives in the girl herself.

which might serve to support a psycho-analytic treatment. She did not try to deceive me by saying that she felt any urgent need to be freed from her homosexuality. On the contrary, she said she could not conceive of any other way of being in love, but she added that for her parents' sake she would honestly help in the therapeutic endeavour, for it pained her very much to be the cause of so much grief to them. I had to take this as a propitious sign to begin with; I could not divine the unconscious affective attitude that lay behind it. What came to light later in this connection decisively influenced the course taken by the analysis and determined its premature conclusion. Readers unversed in psycho-analysis will long have been awaiting an answer to two other questions. Did this homosexual girl show physical characteristics plainly belonging to the opposite sex, and did the case prove to be one of congenital or acquired (later developed) homosexuality?

I am aware of the importance attaching to the first of these questions. Only one should not exaggerate it and obscure in its favour the fact that sporadic secondary characteristics of the opposite sex are very often present in normal individuals, and that well-marked physical characteristics of the opposite sex may be found in persons whose choice of object has undergone no change in the direction of inversion; in other words, that in both sexes *the degree of physical hermaphroditism is to a great extent independent of the psychical hermaphroditism*. In modification of this statement it must be added that this independence is more evident in men than women, where bodily and mental traits belonging to the opposite sex are apt to coincide in their incidence. Still I am not in a position to give a satisfactory answer to the first of our questions about my patient; the psycho-analyst customarily forgoes thorough bodily examination of his patients in certain cases. Certainly there was no obvious deviation from the feminine physical type, nor any

menstrual disturbance. The beautiful and well-developed girl had, it is true, her father's tall figure, and her facial features were sharp rather than soft and girlish, traits which might be regarded as indicating a physical masculinity. Some of her intellectual attributes also could be connected with masculinity: for instance, her acuteness of comprehension and her lucid objectivity, in so far as she was not dominated by her passion; though these distinctions are conventional rather than scientific. What is certainly of greater importance is that in her behaviour towards her love-object she had throughout assumed the masculine part: that is to say, she displayed the humility and the sublime over-estimation of the sexual object so characteristic of the male lover, the renunciation of all narcissistic satisfaction, and the preference for being loved rather than beloved. She had thus not only chosen a feminine love-object, but had also developed a masculine attitude towards this object.

The second question, whether this was a case of inherited or acquired homosexuality, will be answered by the whole history of the patient's abnormality and its development. The study of this will show how fruitless and inappropriate this question is.

II

After an introduction which digresses in so many directions, the sexual history of the case under consideration can be presented quite concisely. In childhood the girl had passed through the normal attitude characteristic of the feminine Oedipus-complex¹, in a way that was not at all remarkable, and had later also begun to substitute for her father a brother slightly older than herself. She did not remember any sexual trauma in early life, nor were any discovered by

¹ I do not see any progress or advantage in the introduction of the term 'Electra-complex', and do not advocate its use.

the analysis. Comparison of her brother's genital organs and her own, which took place about the beginning of the latency period (at five years old or perhaps a little earlier), left a strong impression on her and had far-reaching after-effects. There were only slight hints pointing to infantile onanism, or else the analysis did not go deep enough to throw light on this point. The birth of a second brother when she was between five and six years old left no special influence upon her development. During the pre-pubescent years at school she gradually became acquainted with the facts of sex, and she received this knowledge with mixed feelings of fascination and frightened aversion, in a way which may be called normal and was not exaggerated in degree. This amount of information about her seems meagre enough, nor can I guarantee that it is complete. It may be that the history of her youth was much richer in experiences; I do not know. As I have already said, the analysis was broken off after a short time, and therefore yielded an anamnesis not much more reliable than the other anammeses of homosexuals, which there is good cause to question. Further, the girl had never been neurotic, and came to the analysis without even one hysterical symptom, so that opportunities for investigating the history of her childhood did not present themselves so readily as usual.

At the age of thirteen to fourteen she displayed a tender and, according to general opinion, exaggeratedly strong affection for a small boy, not quite three years old, whom she used to see regularly in a playground in one of the parks. She took to the child so warmly that in consequence a permanent friendship grew up between herself and his parents. One may infer from this episode that at that time she was possessed of a strong desire to be a mother herself and to have a child. However, after a short time she grew indifferent to the boy, and began to take an interest in mature, but still youthful, women; the manifestations of this

in her soon led her father to administer a mortifying chastisement to her.

It was established beyond all doubt that this change occurred simultaneously with a certain event in the family, and one may therefore look to this for some explanation of the change. Before it happened, her libido was focussed on motherhood, while afterwards she became a homosexual attracted to mature women, and has remained so ever since. The event which is so significant for our understanding of the case was a new pregnancy of her mother's, and the birth of a third brother when she was about sixteen.

The network of causes and effects that I shall now proceed to lay bare is not a product of my gift for combination; it is based on such trustworthy analytic evidence that I can claim objective validity for it; it was in particular a series of inter-related dreams, easy of interpretation, that proved decisive in this respect.

The analysis revealed beyond all shadow of doubt that the beloved lady was a substitute for—the mother. It is true that she herself was not a mother, but then she was not the girl's first love. The first objects of her affection after the birth of her youngest brother were really mothers, women between thirty and thirty-five whom she had met with their children during summer holidays or in the family circle of acquaintances in town. Motherhood as a 'condition of love' was later on given up, because it was difficult to combine in real life with another one, which grew more and more important. The specially intensive bond with her latest love, the 'Lady', had still another basis which the girl discovered quite easily one day. On account of her slender figure, regular beauty, and off-hand manner, the lady reminded her of her own brother, a little older than herself. Her latest choice corresponded, therefore, not only with her feminine but also with her masculine ideal; it combined gratification of the homosexual tendency with that of the heterosexual one. It is well known that analysis of male

homosexuals has in numerous cases revealed the same combination, which should warn us not to form too simple a conception of the nature and genesis of inversion, and to keep in mind the extensive influence of the bisexuality of mankind.¹

But how are we to understand the fact that it was just the birth of a child who came late in the family, at a time when the girl herself was already mature and had strong wishes of her own, that moved her to bestow her passionate tenderness upon her who gave birth to this child, i.e. her own mother, and to express that feeling towards a substitute for her mother? From all that we know we should have expected just the opposite. In such circumstances mothers with daughters of about a marriageable age usually feel embarrassed in regard to them, while the daughters are apt to feel for their mothers a mixture of compassion, contempt and envy which does nothing to increase their tenderness for them. The girl we are considering, however, had altogether little cause to feel affection for her mother. The latter, still youthful herself, saw in her rapidly developing daughter an inconvenient competitor; she favoured the sons at her expense, limited her independence as much as possible, and kept an especially strict watch against any close relation between the girl and her father. A yearning from the beginning for a kinder mother would, therefore, have been quite intelligible, but why it should have flamed up just then, and in the form of a consuming passion, is not comprehensible.

The explanation is as follows: The girl was just experiencing the revival of the infantile Oedipus-complex at puberty when she suffered a great disappointment. She became keenly conscious of the wish to have a child, and a male one; that it was her father's child and his image that she desired, her consciousness was not allowed to know. And then— it was not she who bore the child, but the unconsciously

hated rival, her mother. Furiously resentful and embittered, she turned away from her father, and from men altogether. After this first great reverse she forswore her womanhood and sought another goal for her libido.

In doing so she behaved just as many men do who after a first painful experience turn their backs for ever upon the faithless female sex and become woman-haters. It is related of one of the most attractive and unfortunate princes of our time that he became a homosexual because the lady he was engaged to marry betrayed him with a stranger. I do not know whether this is true historically, but much psychological truth lies behind the rumour. In all of us, throughout life, the libido normally oscillates between male and female objects; the bachelor gives up his men friends when he marries, and returns to club-life when married life has lost its savour. Naturally, when the swing-over is fundamental and final, we suspect some special factor which has definitely favoured one side or the other, and which perhaps only waited for the appropriate moment in order to turn the choice of object finally in its direction.

After her disappointment, therefore, this girl had entirely repudiated her wish for a child, the love of a man, and womanhood altogether. Now it is evident that at this point the developments open to her were very manifold; what actually happened was the most extreme one possible. She changed into a man, and took her mother in place of her father as her love-object.¹ Her relation to her mother had certainly been ambivalent from the beginning, and it proved easy to revive her earlier love for her mother and with its help to bring about an over-compensation for her current hostility towards her. Since there was little to be done with the

¹ It is by no means rare for a love-relation to be broken off by means of a process of identification on the part of the lover with the loved object, a process equivalent to a kind of regression to narcissism. After this has been accomplished, it is easy in making a fresh choice of object to direct the libido to a member of the sex opposite to that of the earlier choice.

¹ Cf. J. Sadger, *Jahresbericht über sexuelle Praversonen*.

real mother, there arose from the conversion of feeling described the search for a mother-substitute to whom she could become passionately attached.¹

In her actual relations with her mother there was a practical motive furthering the change of feeling which might be called an 'advantage through illness'. The mother herself still attached great value to the attentions and the admiration of men. If, then, the girl became homosexual and left men to her mother (in other words, retired in favour of the mother), she removed something which had hitherto been partly responsible for her mother's disfavour.²

¹ The displacements of the libido here described are doubtless familiar to every analyst from investigation of the anamneses of neurotics. With the latter, however, they occur in early childhood, at the beginning of the love-life; with our patient, who was in no way neurotic, they took place in the first years following puberty, though, by the way, they were just as completely unconscious. Perhaps one day this temporal factor may turn out to be of great importance.

² As 'retiring in favour of someone else' has not previously been mentioned among the causes of homosexuality, or in the mechanism of libido-fixation in general, I will adduce here another analytical observation of the same kind which has a special feature of interest. I once knew two twin brothers, both of whom were endowed with strong libidinal impulses. One of them was very successful with women, and had innumerable affairs with women and girls. The other went the same way at first, but it became unpleasant for him to be trespassing on his brother's beat, and, owing to the likeness between them, to be mistaken for him on intimate occasions, so he got out of the difficulty by becoming homosexual. He left the women to his brother, and thus 'retired' in his favour. Another time I treated a young man, an artist, unmistakably bisexual in disposition, in whom the homosexual trend had come to the fore simultaneously with a disturbance in his work. He fled from both women and work together. The analysis, which was able to bring him back to both, showed that the fear of the father was the most powerful psychic motive for both the disturbances, which were really renunciations. In his imagination all women belonged to the father, and he sought refuge in men out of submission, so as to 'retire from', the conflict in favour of the father. Such a motivation of the homosexual object-choice must be by no means uncommon; in the primeval ages of the human race all women presumably belonged to the father and head of the primal horde.

Among brothers and sisters who are not twins this 'retirement' plays a great part in other spheres as well as in that of the love-choice. For example, an elder brother studies music and is admired for it; the younger, far more gifted musically, soon gives up his own musical studies, in spite of his longing, and cannot be persuaded to touch an instrument again. This is one example of a very frequent occurrence, and investigation of the motives leading to this 'retirement', rather than to open rivalry discloses very complicated conditions in the mind.

The attitude of the libido thus adopted was greatly reinforced as soon as the girl perceived how much it displeased her father. Once she had been punished for an over-affectionate overture made to a woman she realized how she could wound her father and take revenge on him. Henceforth she remained homosexual out of defiance against her father. Nor did she scruple to lie to him and to deceive him in every way. Towards her mother, indeed, she was only so far deceitful as was necessary to prevent her father from knowing things. I

had the impression that her behaviour followed the principle of the talion: 'Since you have betrayed me, you must put up with my betraying you'. Nor can I come to any other conclusion about the striking lack of caution displayed by this otherwise ingenuous and clever girl. She wanted her father to know occasionally of her intercourse with the lady, otherwise she would be deprived of satisfaction of her keenest desire—namely, revenge. So she saw to this by showing herself openly in the company of her adored one, by walking with her in the streets near her father's place of business, and the like. This maladroitness was by no means unintentional. It was remarkable, by the way, that both parents behaved as though they understood the secret psychology of their daughter. The mother was tolerant, as though she appreciated the favour of her daughter's 'retirement' from the arena; the father was furious, as though he realized the deliberate revenge directed against himself.

The girl's inversion, however, received its final reinforcement when she found in her 'Lady' an object which promised to satisfy not only her homosexual tendency, but also that part of her heterosexual libido still attached to her brother.

Consecutive presentation is not a very adequate means of describing complicated mental processes going on in different layers of the mind. I am therefore

III

obliged to pause in the discussion of the case and treat more fully and deeply some of the points brought forward above.

I mentioned the fact that in her behaviour to her adored lady the girl had adopted the characteristic masculine type of love. Her humility and her tender lack of pretensions, '*che poco spera e nulla chiede*', her bliss when she was allowed to accompany the lady a little way and to kiss her hand on parting, her joy when she heard her praised as beautiful—while any recognition of her own beauty by another person meant nothing at all to her—her pilgrimages to places once visited by the loved one, the oblivion of all more sensual wishes: all these little traits in her resembled the first passionate adoration of a youth for a celebrated actress whom he regards as far above him, to whom he scarcely dares lift his bashful eyes. The correspondence with the 'type of object-choice in men' that I have described elsewhere, whose special features I traced to the attachment to the mother,¹ held good even to the smallest details. It may seem remarkable that she was not in the least repelled by the evil reputation of her beloved, although her own observations sufficiently confirmed the truth of such rumours. She was after all a well-brought-up and modest girl, who had avoided sexual adventures for herself, and who regarded coarsely sensual gratification as unesthetic. But already her first passions had been for women who were not celebrated for specially strict propriety. The first protest her father made against her love-choice had been evoked by the pertinacity with which she sought the company of a cinematograph actress at a summer resort. Moreover, in all these affairs it had never been a question of women who had any reputation for homosexuality, and who might, therefore, have offered her some prospect of homosexual gratification; on the contrary, she illogically courted women who were coquettes in the ordinary sense of the word, and she rejected without hesitation the willing

advances made by a homosexual friend of her own age. The bad reputation of her 'Lady', however, was positively a condition of love, for her, and all that is enigmatical in this attitude vanishes when we remember that in the case of the masculine type of object-choice derived from the mother it is also an essential condition that the loved object should be in some way or other 'of bad repute', sexually, one who really may be called a 'light woman'. When the girl learnt later on how far her adored lady deserved to be called by this title and that she lived simply by giving her bodily favours, her reaction took the form of great compassion and of phantasies and plans for 'rescuing' her beloved from these ignoble circumstances. We have been struck by the same endeavours to 'rescue' in the men of the type referred to above, and in my description of it I have tried to give the analytical derivation of this tendency.

We are led into quite another realm of explanation by the analysis of the attempt at suicide, which I must regard as seriously intended, and which, by the way, considerably improved her position both with her parents and with the lady she loved. She went for a walk with her one day in a part of the town and at an hour at which she was not unlikely to meet her father on his way from his office. So it turned out. Her father passed them in the street and cast a furious look at her and her companion, whom he had by that time come to know. A few moments later she flung herself on to the railway cutting. Now the explanation she gave of the immediate reasons determining her resolution sounded quite plausible. She had confessed to the lady that the man who had given them such an irate glance was her father, and that he had absolutely forbidden their friendship. The lady became incensed at this and ordered the girl to leave her then and there, and never again to wait for her or to address her—the affair must now come to an end. In her despair at having thus lost her loved one for ever, she wanted to put an end to

¹ COLLECTED PAPERS, vol. iv.

herself. The analysis, however, was able to disclose another and deeper interpretation behind the one she gave, which was confirmed by the evidence of her own dreams. The attempted suicide was, as might have been expected, determined by two other motives besides the one she gave: it was a 'punishment fulfilment' (self-punishment), and a wish-fulfilment. As a wish-fulfilment it signified the attainment of the very wish which, when frustrated, had driven her into homosexuality—namely, the wish to have a child by her father, for now she 'tell'¹ through her father's fault.² The fact that at this moment the lady had spoken to the same effect as the father, and had uttered the same prohibition, forms the connecting link between this deeper interpretation and the superficial one of which the girl herself was conscious. From the point of view of self-punishment the girl's action shows us that she had developed in her unconscious strong death-wishes against one or other of her parents: perhaps against her father, out of revenge for impeding her love, but, more likely, also against her mother when she was pregnant with the little brother. For analysis has explained the enigma of suicide in the following way: probably no one finds the mental energy required to kill himself unless, in the first place, he is in doing this at the same time killing an object with whom he has identified himself, and, in the second place, is turning against himself a death-wish which had been directed against someone else. Nor need the regular discovery of these unconscious death-wishes in those who have attempted suicide surprise us as strange (any more than it need make an impression as confirming our deductions), since the unconscious of all human beings is full enough of such

[In the text there is a play on the word *niederkommen*, which means both 'to fall' and 'to be delivered of a child'. There is also in English a colloquial use of the verb 'to fall', meaning pregnancy or childbirth.—Trans.]

¹ That the various means of suicide can represent sexual wish-fulfilments has long been known to all analysts. (To poison oneself = to become pregnant; to drown = to bear a child; to throw oneself from a height = to be delivered of a child.)

death-wishes, even against those we love.¹ The girl's identification of herself with her mother, who ought to have died at the birth of the child denied to herself, makes this 'punishment-fulfilment' itself again into a 'wish-fulfilment'. Lastly, a discovery that several quite different motives, all of great strength, must have co-operated to make such a deed possible is only in accord with what we should expect.

In the girl's account of her conscious motives the father did not figure at all; there was not even any mention of fear of his anger. In the motivation laid bare by the analysis he played the principal part. Her relation to her father had this same decisive importance for the course and outcome of the analytic treatment, or rather, analytic exploration. Behind her pretended consideration for her parents, for whose sake she had been willing to make the attempt to be transformed, lay concealed her attitude of defiance and revenge against her father which held her fast to her homosexuality. Secure under this cover, the resistance allowed a considerable degree of freedom to the analytic investigation. The analysis went forward almost without any signs of resistance, the patient participating actively with her intellect, though absolutely tranquil emotionally. Once when I expounded to her a specially important part of the theory, one touching her nearly, she replied in an inimitable tone, 'How very interesting', as though she were a *grande dame* being taken over a museum and glancing through her lorgnon at objects to which she was completely indifferent. The impression one had of her analysis was not unlike that of an hypnotic treatment, where the resistance has in the same way withdrawn to a certain limit, beyond which it then proves to be unconquerable. The resistance very often pursues similar tactics—Russian tactics, as they might be called²—in cases of the obsessional neurosis,

¹ Cf. 'Reflections upon War and Death', COLLECTED PAPERS, vol. iv.

² [A reference to the European War, 1914-18.—Trans.]

which for this reason yield the clearest results for a time and permit of a penetrating inspection of the causation of the symptoms. One begins to wonder how it is that such marked progress in analytic understanding can be unaccompanied by even the slightest change in the patient's compulsions and inhibitions, until at last one perceives that everything accomplished had been admitted only under the mental reservation of doubt,¹ and behind this protective barrier the neurosis may feel secure. 'It would be all *very fine*', thinks the patient, often quite consciously, 'if I were obliged to believe what the man says, but there is no question of that, and so long as that is not so I need change nothing.' Then, when one comes to close quarters with the motivation of this doubt, the fight with the resistances 'breaks forth in earnest.'

In the case of our patient, it was not doubt, but the affective factor of revenge against her father that made her cool reserve possible, that divided the analysis into two distinct stages, and rendered the results of the first stage so complete and perspicuous. It seemed, further, as though nothing resembling a transference to the physician had been effected. That, however, is of course absurd, or, at least, is a loose way of expressing it; for some kind of relation to the analyst must come about, and this is usually transferred from an infantile one. In reality she transferred to me the deep antipathy to men which had dominated her ever since the disappointment she had suffered from her father. Bitterness against men is as a rule easy to gratify upon the analyst; it need not evoke any violent emotional manifestations, it simply expresses itself in rendering futile all his endeavours and in clinging to the neurosis. I know from experience how difficult it is to make the patient understand just this mute kind of symptomatic behaviour and to make him aware of this latent, and often exceedingly strong, hostility without endangering

¹ [*I.e.* believed on condition that it is regarded as not certain.—Trans.]

the treatment. So as soon as I recognized the girl's attitude to her father, I broke off the treatment and gave the advice that, if it was thought worth while to continue the therapeutic efforts, it should be done by a woman. The girl had in the meanwhile promised her father that at any rate she would not communicate with the 'Lady', and I do not know whether my advice, the motive for which is evident, will be followed.

Only once in the course of this analysis did anything appear which I could regard as a positive transference, a greatly weakened revival of the original passionate love for the father. Even this manifestation was not quite free from other motives, but I mention it because it brings up, in another direction, an interesting problem of analytic technique. At a certain period, not long after the treatment had begun, the girl brought a series of dreams which, distorted as is customary and couched in the usual dream-language, could nevertheless be easily translated with certainty. Their content, when interpreted, was, however, remarkable. They anticipated the cure of the inversion through the treatment, expressed her joy over the prospects in life then opened before her, confessed her longing for a man's love and for children, and so might have been welcomed as a gratifying preparation for the desired change. The contradiction between them and the girl's utterances in waking life at the time was very great. She did not conceal from me that she meant to marry, but only in order to escape from her father's tyranny and to follow her true inclinations undisturbed. As for the husband, she remarked rather contemptuously, she would easily deal with him, and besides, one could have sexual relations with a man and a woman at one and the same time, as the example of the adored lady showed. Warned through some slight impression or other, I told her one day that I did not believe these dreams, that I regarded them as false or hypocritical, and that she intended to deceive me just as she habitually deceived her father. I was right; after

this exposition this kind of dream ceased. But I still believe that, beside the intention to mislead me, the dreams partly expressed the wish to win my favour; they were also an attempt to gain my interest and my good opinion—perhaps in order to disappoint me all the more thoroughly later on.

I can imagine that to point out the existence of lying dreams of this kind, destined to please the analyst, will arouse in some readers who call themselves analysts a real storm of helpless indignation. 'What!' they will exclaim, 'so the unconscious, the real centre of our mental life, the part of us that is so much nearer the divine than our poor consciousness, so that too can lie! Then how can we still build on the interpretations of analysis and the accuracy of our findings?' To which one must reply that the recognition of these lying dreams does not constitute an astounding novelty. I know, indeed, that the craving of mankind for mysticism is ineradicable, and that it makes ceaseless efforts to win back for mysticism the playground it has been deprived of by the *Traumdeutung*, but in the case under consideration surely everything is simple enough. A dream is not the 'unconscious' itself; it is the form into which a thought from the preconscious, or even from waking conscious life, can, thanks to the favouring conditions of sleep, be recast. During sleep this thought has been reinforced by unconscious wish-excitations and thus has experienced distortion through the 'dream-work', which is determined by the mechanisms valid for the unconscious. With our dreamer, the intention to mislead me, just as she did her father, certainly emanated from the preconscious, or perhaps even from consciousness; it could come to expression by entering into connection with the unconscious wish-impulse to please the father (or father-substitute), and in this way it created a lying dream. The two intentions, to betray and to please the father, originate in the same complex; the former resulted from the repression of the latter, and

the later one was reduced by the dream-work to the earlier one. There can therefore be no question of any devaluation of the unconscious, nor of a shaking of our confidence in the results of our analysis.

I will not miss this opportunity of expressing for once my astonishment that human beings can go through such great and momentous phases of their love-life without heeding them much, sometimes even, indeed, without having the faintest suspicion of them: or else that, when they do become aware of these phases, they deceive themselves so thoroughly in their judgement of them. This happens not only with neurotics, where we are familiar with the phenomenon, but seems also to be common enough in ordinary life.

In the present case, for example, a girl develops a devotion for women, which her parents at first find merely vexatious and hardly take seriously; she herself knows quite well that her feelings are greatly engaged, but still she is only slightly aware of the sensations of intense love until a certain disappointment is followed by an absolutely excessive reaction, which shows everyone concerned that they have to do with a consuming passion of elemental strength. Even the girl herself had never perceived anything of the conditions necessary for the outbreak of such a mental upheaval. In other cases we come across girls or women in a state of severe depression, who on being asked for a possible cause of their condition tell us that they have, it is true, had a little feeling for a certain person, but that it was nothing deep and that they soon got over it when they had to give up hope. And yet it was this renunciation, apparently so easily borne, that became the cause of serious mental disturbance. Again, we have to do with men who have passed through casual love-affairs and then realize only from the subsequent effects that they had been passionately in love with someone whom they had apparently regarded lightly. One is also amazed at the unexpected results that may follow an artificial abortion which

had been decided upon without remorse and without hesitation. One must agree that the poets are right who are so fond of portraying people in love without knowing it, or uncertain whether they do love, or who think that they hate when in reality they love. It would seem that the knowledge received by our consciousness of what is happening to our love-instincts is especially liable to be incomplete, full of gaps, or falsified. Needless to say, in this discussion I have not omitted to allow for the part played by subsequent failures of memory.

IV

I now come back, after this digression, to the consideration of my patient's case. We have made a survey of the forces which led the girl's libido from the normal Oedipus attitude into that of homosexuality, and of the paths thus traversed by it in the mind. Most important in this respect was the impression made by the birth of her little brother, and we might from this be inclined to classify the case as one of late acquired inversion.

But at this point we become aware of a state of things which also confronts us in many other instances in which light has been thrown by psycho-analysis on a mental process. So long as we trace the development from its final stage backwards, the connection appears continuous, and we feel we have gained an insight which is completely satisfactory or even exhaustive. But if we proceed the reverse way, if we start from the premises inferred from the analysis and try to follow these up to the final result, then we no longer get the impression of an inevitable sequence of events which could not be otherwise determined. We notice at once that there might have been another result, and that we might have been just as well able to understand and explain the latter. The synthesis is thus not so satisfactory as the analysis; in other words, from a

knowledge of the premises we could not have foretold the nature of the result.

It is very easy to account for this disturbing state of affairs. Even supposing that we thoroughly know the aetiological factors that decide a given result, still we know them only qualitatively, and not in their relative strength. Some of them are so weak as to become suppressed by others, and therefore do not affect the final result. But we never know beforehand which of the determining factors will prove the weaker or the stronger. We only say at the end that those which succeeded must have been the stronger. Hence it is always possible by analysis to recognize the causation with certainty, whereas a prediction of it by synthesis is impossible.

We do not, therefore, mean to maintain that every girl who experiences a disappointment of this kind, of the longing for love that springs from the Oedipus attitude during puberty, will necessarily on that account fall a victim to homosexuality. On the contrary, other kinds of reaction to this trauma are probably commoner. Then, however, there must have been present in this girl special factors that turned the scale, factors outside the trauma, probably of an internal nature. Nor is there any difficulty in pointing them out. It is well known that even in the normal person it takes a certain time before a decision in regard to the sex of the love-object is finally achieved. Homosexual enthusiasms, unduly strong friendships tinged with sensuality, are common enough in both sexes during the first years after puberty. This was also so with our patient, but in her these tendencies undoubtedly showed themselves to be stronger, and lasted longer, than with others. In addition, these presages of later homosexuality had always occupied her conscious life, while the attitude arising from the Oedipus-complex had remained unconscious and had appeared only in such signs as her tender fondling of the little boy. As a school-girl she was for a long time

in love with a strict and unapproachable mistress, obviously a mother-substitute. A long time before the birth of her brother and still longer before the first reprimand at the hands of her father, she had taken a specially keen interest in various young mothers. From very early years, therefore, her libido had flowed in two streams, the one on the surface being one that we may unhesitatingly designate homosexual. This latter was probably a direct and unchanged continuation of an infantile mother-fixation. Possibly the analysis described here actually revealed nothing more than the process by which, on an appropriate occasion, the deeper heterosexual libido-stream was also deflected into the manifest homosexual one.

The analysis showed, further, that the girl had suffered from childhood from a strongly marked 'masculinity complex'. A spirited girl, always ready to fight, she was not at all prepared to be second to her slightly older brother; after inspecting his genital organs she had developed a pronounced envy of the penis, and the thoughts derived from this envy still continued to fill her mind. She was in fact a feminist; she felt it to be unjust that girls should not enjoy the same freedom as boys, and rebelled against the lot of woman in general. At the time of the analysis the idea of pregnancy and child-birth was disagreeable to her, partly, I surmise, on account of the bodily disfigurement connected with them. Her girlish narcissism had betaken itself to this refuge,¹ and ceased to express itself as pride in her good looks. Various clues indicated that she must formerly have taken great pleasure in exhibitionism and scopophilia. Anyone who is anxious that the claims of environment in aetiology should not come short, as opposed to those of heredity, will call attention to the fact that the girl's behaviour, as described above, was exactly what would follow from the combined effect in a person with a strong, mother-fixation of the two influences of her mother's indifference and of her

comparison of her genital organs with her brother's. It is possible here to trace back to the impression of an effective external influence in early life something which one would have been ready to regard as a constitutional peculiarity. But a part even of this acquired disposition, if it has really been acquired, has to be ascribed to the inborn constitution. So we see in practice a continual mingling and blending of what in theory we should try to separate into a pair of opposites—namely, inherited and acquired factors.

An earlier, more tentative conclusion of the analysis might have led to the view that this was a case of late-acquired homosexuality, but deeper consideration of the material undertaken later impels us to conclude that it is rather a case of inborn homosexuality which, as usual, became fixed and unmistakably manifest only in the period following puberty. Each of these classifications does justice only to one part of the state of affairs ascertainable by observation, but neglects the other. It would be best not to attach too much value to this way of stating the problem.

Publications on homosexuality usually do not distinguish clearly enough between the questions of the choice of object, on the one hand, and of the sexual characteristics and sexual attitude of the subject, on the other, as though the answer to the former necessarily involved the answers to the latter. Experience, however, proves the contrary: a man with predominantly male characteristics and also masculine in his love-life may still be inverted in respect to his object, loving only men instead of women. A man in whose character feminine attributes evidently predominate, who may, indeed, behave in love like a woman, might be expected, from this feminine attitude, to choose a man for his love-object; but he may nevertheless be heterosexual, and show no more inversion in respect of his object than an average normal man. The same is true of women; here also mental sexual character and object-choice do not necessarily coincide. The mystery of homosexuality

¹ Cf. Kriemhilde's confession in the *Nibelungenlied*.

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Steinach's¹ experiments, such very important results concerning the influence exerted by the first factor mentioned above on the second and third. Psycho-analysis has a common basis with biology, in that it presupposes an original bisexuality in human beings (as in animals). But psycho-analysis cannot elucidate the intrinsic nature of what in conventional or in biological phraseology is termed 'masculine' and 'feminine': it simply takes over the two concepts and makes them the foundation of its work. When we attempt to reduce them further, we find masculinity vanishing into activity and femininity into passivity, and that does not tell us enough. In what has gone before I have tried to explain how far we may reasonably expect, or how far experience has already proved, that the elucidations yielded by analysis furnish us with the means for altering inversion. When one compares the extent to which we can influence it with the remarkable transformations that Steinach has effected in some cases by his operations, it does not make a very imposing impression. Thus it would be premature, or a harmful exaggeration, if at this stage we were to indulge in hopes of a therapy of inversion that could be generally used. The cases of male homosexuality in which Steinach has been successful fulfilled the condition, which is not always present, of a very patent physical 'hermaphroditism'. Any analogous treatment of female homosexuality is at present quite obscure. If it were to consist in removing the probably hermaphroditic ovaries, and in implanting others, which would, it is hoped, be of a single sex, there would be little prospect of its being applied in practice. A woman who has felt herself to be a man, and has loved in masculine fashion, will hardly let herself be forced into playing the part of a woman when she must pay for this transformation, which is not in every way advantageous, by renouncing all hope of motherhood.

¹ Cf. A. Lipschütz, *Die Pubertät drüse und ihre Wirkungen*.

- D Skinner, B. F. "A Critique of Psychoanalytic Concepts and Theories" 1954

A Critique of Psychoanalytic Concepts and Theories

Freud's great contribution to Western thought has been described as the application of the principle of cause and effect to human behavior. Freud demonstrated that many features of behavior hitherto unexplained—and often dismissed as hopelessly complex or obscure—could be shown to be the product of circumstances in the history of the individual. Many of the causal relationships he so convincingly demonstrated had been wholly unsuspected—unsuspected, in particular, by the very individuals whose behavior they controlled. Freud greatly reduced the sphere of accident and caprice in our considerations of human conduct. His achievement in this respect appears all the more impressive when we recall that he was never able to appeal to the quantitative proofs characteristic of other sciences. He carried the day with sheer persuasion—with the massing of instances and the delineation of surprising parallels and analogies among seemingly diverse materials.

This was not, however, Freud's own view of the matter. At the age of 70 he summed up his achievement in this way: "My life has been aimed at one goal only: to infer or guess how the mental apparatus is constructed and what forces interplay and counteract in it."¹ It is difficult to describe the mental apparatus he refers to in noncontroversial terms, partly because Freud's conception changed from time to time and partly because its very nature encouraged misinterpretation and misunderstanding. But it is perhaps not too wide of the mark to indicate its principal features as follows: Freud conceived of some realm of the mind, not necessarily having physical extent, but nevertheless capable of topographic description and of subdivision into regions of the conscious, co-conscious, and unconscious.

¹ From *Scientific Monthly*, November 1954.

¹ Jones, E. *Life and Work of Sigmund Freud*. New York: Basic Books, 1953, Vol. 1.

Within this space, various mental events—ideas, wishes, memories, emotions, instinctive tendencies, and so on—interacted and combined in many complex ways. Systems of these mental events came to be conceived of almost as subsidiary personalities and were given proper names: the Id, the Ego, and the Superego. These systems divided among themselves a limited store of psychic energy. There were, of course, many other details.

No matter what logicians may eventually make of this mental apparatus, there is little doubt that Freud accepted it as real rather than as a scientific construct or theory. One does not at the age of 70 define the goal of one's life as the exploration of an explanatory fiction. Freud did not use his "mental apparatus" as a postulate system from which he deduced theorems to be submitted to empirical check. If there was any interaction between the mental apparatus and empirical observations, it took the form of modifying the apparatus to account for newly discovered facts. To many followers of Freud the mental apparatus appears to be equally as real, and the exploration of such an apparatus is similarly accepted as the goal of a science of behavior. There is an alternative view, however, which holds that Freud did not discover the mental apparatus but rather invented it, borrowing part of its structure from a traditional philosophy of human conduct but adding many novel features of his own devising.

There are those who will concede that Freud's mental apparatus was a scientific construct rather than an observable empirical system but who, nevertheless, attempt to justify it in the light of scientific method. One may take the line that metaphorical devices are inevitable in the early stages of any science and that although we may look with amusement today upon the "essences," "forces," "phlogistons," and "ethers" of the science of yesterday, these nevertheless were essential to the historical process. It would be difficult to prove or disprove this. However, if we have learned anything about the nature of scientific thinking, if mathematical and logical researches have improved our capacity to represent and analyze empirical data, it is possible that we can avoid some of the mistakes of adolescence. Whether Freud could have done so is past demonstrating, but whether we need similar constructs in the future prosecution of a science of behavior is a question worth considering.

Constructs are convenient and perhaps even necessary in dealing with certain complicated subject matters. As Frenkel-Brunswik shows,² Freud was aware of the problems of scientific methodology and even of the metaphorical nature of some of his own constructs. When this was the case, he justified the constructs as necessary or at least highly convenient.

² Frenkel-Brunswik, E. P. *Scientific Monthly*, 1954, 79, 293.

But awareness of the nature of the metaphor is no defense of it, and if modern science is still occasionally metaphorical, we must remember that theorywise it is also still in trouble. The point is not that metaphor or construct is objectionable but that particular metaphors and constructs have caused trouble and are continuing to do so. Freud recognized the damage worked by his own metaphorical thinking, but he felt that it could not be avoided and that the damage must be put up with. There is reason to disagree with him on this point.

Freud's explanatory scheme followed a traditional pattern of looking for a cause of human behavior inside the organism. His medical training supplied him with powerful supporting analogies. The parallel between the excision of a tumor, for example, and the release of a repressed wish from the unconscious is quite compelling and must have affected Freud's thinking. Now, the pattern of an inner explanation of behavior is best exemplified by doctrines of animism, which are primarily concerned with explaining the spontaneity and evident capriciousness of behavior. The living organism is an extremely complicated system behaving in an extremely complicated way. Much of its behavior appears at first blush to be absolutely unpredictable. The traditional procedure had been to invent an inner determiner, a "demon," "spirit," "homunculus," or "personality" capable of spontaneous change of course or of origination of action. Such an inner determiner offers only a momentary explanation of the behavior of the outer organism, because it must, of course, be accounted for also, but it is commonly used to put the matter beyond further inquiry and to bring the study of a causal series of events to a dead end.

Freud, himself, however, did not appeal to the inner apparatus to account for spontaneity or caprice because he was a thoroughgoing determinist. He accepted the responsibility of explaining, in turn, the behavior of the inner determiner. He did this by pointing to hitherto unnoticed external causes in the environmental and genetic history of the individual. He did not, therefore, need the traditional explanatory system for traditional purposes; but he was unable to eliminate the pattern from his thinking. It led him to represent each of the causal relationships he had discovered as a series of three events. Some environmental condition, very often in the early life of the individual, leaves an effect upon the inner mental apparatus, and this in turn produces the behavioral manifestation or symptom. Environmental event, mental state or process, behavioral symptom—these are the three links in Freud's causal chain. He made no appeal to the middle link to explain spontaneity or caprice. Instead he used it to bridge the gap in space and time between the events he had proved to be causally related.

A possible alternative, which would have had no quarrel with established science, would have been to argue that the environmental variables leave physiological effects which may be inferred from the behavior of the individual, perhaps at a much later date. In one sense, too little is known at the moment about physiological processes to make them useful in a legitimate way for this purpose. On the other hand, too much is known of them, at least in a negative way. Enough is known of the nervous system to place certain dimensional limits upon speculation and to clip the wings of explanatory fictions. Freud accepted, therefore, the traditional fiction of a mental life, avoiding an out-and-out dualism by arguing that eventually physiological counterparts would be discovered. Quite apart from the question of the existence of mental events, let us observe the damage which resulted from this maneuver.

We may touch only briefly upon two classical problems which arise once the conception of a mental life has been adopted. The first of these is to explain how such a life is to be observed. The introspective psychologists had already tried to solve this problem by arguing that introspection is only a special case of the observation upon which all science rests and that man's experience necessarily stands between him and the physical world with which science purports to deal. But it was Freud himself who pointed out that not all of one's mental life was accessible to direct observation—that many events in the mental apparatus were necessarily inferred. Great as this discovery was, it would have been still greater if Freud had taken the next step, advocated a little later by the American movement called Behaviorism, and insisted that conscious, as well as unconscious, events were inferences from the facts. By arguing that the individual organism simply reacts to its environment, rather than to some inner experience of that environment, the bifurcation of nature into physical and psychic can be avoided.³

A second classical problem is how the mental life can be manipulated. In the process of therapy, the analyst necessarily acts upon the patient only through physical means. He manipulates variables occupying a position in the first link of Freud's causal chain. Nevertheless, it is commonly assumed that the mental apparatus is being directly manipulated. Sometimes it is argued that processes are initiated within the individual himself, such as those of free association and transference, and that these in turn act directly

³ Although it was Freud himself who taught us to doubt the face value of introspection, he appears to have been responsible for the view that another sort of direct experience is required if certain activities in the mental apparatus are to be comprehended. Such a requirement is implied in the modern assertion that only those who have been psychoanalyzed can fully understand the meaning of transference or the release of a repressed fear.

upon the mental apparatus. But how are these mental processes initiated by physical means? The clarification of such a causal connection places a heavy and often unwelcome burden of proof upon the shoulders of the dualist. The important disadvantages of Freud's conception of mental life can be described somewhat more specifically. The first of these concerns the environmental variables to which Freud so convincingly pointed. The cogency of these variables was frequently missed because the variables were transformed and obscured in the course of being represented in mental life. The physical world of the organism was converted into conscious and unconscious experience, and these experiences were further transmuted as they combined and changed in mental processes. For example, early punishment of sexual behavior is an observable fact which undoubtedly leaves behind a changed organism. But when this change is represented as a state of conscious or unconscious anxiety or guilt, specific details of the punishment are lost. When, in turn, some unusual characteristic of the sexual behavior of the adult individual is related to the supposed guilt, many specific features of the relationship may be missed which would have been obvious if the same features of behavior had been related to the punishing episode. Insofar as the mental life of the individual is used as Freud used it to represent and to carry an environmental history, it is inadequate and misleading.

Freud's theory of the mental apparatus had an equally damaging effect upon his study of behavior as a dependent variable. Inevitably, it stole the show. Little attention was left to behavior per se. Behavior was relegated to the position of a mere mode of expression of the activities of the mental apparatus or the symptoms of an underlying disturbance. Among the problems not specifically treated in the manner which was their due, we may note five.

1. The nature of the act as a unit of behavior was never clarified. The simple occurrence of behavior was never well represented. "Thoughts" could "occur" to an individual; he could "have" ideas according to the traditional model; but he could "have" behavior only in giving expression to these inner events. We are much more likely to say that "the thought occurred to me to ask him his name" than that "the act of asking him his name occurred to me." It is the nature of thoughts and ideas that they occur to people, but we have never come to be at home in describing the emission of behavior in a comparable way. This is especially true of verbal behavior. In spite of Freud's valuable analysis of verbal slips and of the techniques of wit and verbal art, he rejected the possibility of an analysis of verbal behavior in its own right rather than as the expression of ideas,

feelings, or other inner events, and therefore missed the importance of this field for the analysis of units of behavior and the conditions of their occurrence.

The behavioral nature of perception was also slighted. To see an object as an object is not mere passive sensing; it is an act, and something very much like it occurs when we see an object although no object is present. Fantasy and dreams were for Freud not the perceptual *behavior* of the individual but pictures painted by an inner artist in some atelier of the mind which the individual then contemplated and perhaps then reported. This division of labor is not essential when the behavioral component of the act of seeing is emphasized.

2. The dimensions of behavior, particularly its dynamic properties, were never adequately represented. We are all familiar with the fact that some of our acts are more likely to occur upon a given occasion than others. But this likelihood is hard to represent and harder to evaluate. The dynamic changes in behavior which are the first concern of the psychoanalyst are primarily changes in probability of action. But Freud chose to deal with this aspect of behavior in other terms—as a question of "libido," "cathexis," "volume of excitation," "instinctive or emotional tendencies," "available quantities of psychic energy," and so on. The delicate question of how probability of action is to be quantified was never answered, because these constructs suggested dimensions to which the quantitative practices of science in general could not be applied.

3. In his emphasis upon the genesis of behavior, Freud made extensive use of processes of learning. These were never treated operationally in terms of changes in behavior but rather as the acquisition of ideas, feelings, and emotions later to be expressed by, or manifested in, behavior. Consider, for example, Freud's own suggestion that sibling rivalry in his own early history played an important part in his theoretical considerations as well as in his personal relationships as an adult.

An infant brother died when Freud himself was only 1½ years old, and as a young child Freud played with a boy somewhat older than himself and presumably more powerful, yet who was, strangely enough, in the nominally subordinate position of being his nephew. To classify such a set of circumstances as sibling rivalry obscures, as we have seen, the many specific properties of the circumstances themselves regarded as independent variables in a science of behavior. To argue that *what was learned* was the effect of these circumstances upon unconscious or conscious aggressive tendencies or feelings of guilt works a similar misrepresentation of the dependent variable. An emphasis upon behavior would lead us to inquire

into the specific acts plausibly assumed to be engendered by these childhood episodes. In very specific terms, how was the behavior of the young Freud shaped by the special reinforcing contingencies arising from the presence of a younger child in the family, by the death of that child, and by later association with an older playmate who nevertheless occupied a subordinate family position? What did the young Freud learn to do to achieve parental attention under these difficult circumstances? How did he avoid aversive consequences? Did he exaggerate any illness? Did he feign illness? Did he make a conspicuous display of behavior which brought commendation? Was such behavior to be found in the field of physical prowess or intellectual endeavor? Did he learn to engage in behavior which would in turn increase the repertoires available to him to achieve commendation? Did he strike or otherwise injure young children? Did he learn to injure them verbally by teasing? Was he punished for this, and if so, did he discover other forms of behavior which had the same damaging effect but were immune to punishment?

We cannot, of course, adequately answer questions of this sort at so late a date, but they suggest the kind of inquiry which would be prompted by a concern for the *explicit shaping of behavioral repertoires* under childhood circumstances. What has survived through the years is not aggression and guilt, later to be manifested in behavior, but rather patterns of behavior themselves. It is not enough to say that this is "all that is meant" by sibling rivalry or by its effects upon the mental apparatus. Such an expression obscures, rather than illuminates, the nature of the behavioral changes taking place in the childhood learning process. A similar analysis could be made of processes in the fields of motivation and emotion.

4. An explicit treatment of behavior as a datum, of probability of response as the principal quantifiable property of behavior, and of learning and other processes in terms of changes of probability is usually enough to avoid another pitfall into which Freud, in common with his contemporaries, fell. There are many words in the layman's vocabulary which suggest the activity of an organism yet are not descriptive of behavior in the narrower sense. Freud used many of these freely—for example, the individual is said to discriminate, remember, infer, repress, decide, and so on. Such terms do not refer to specific acts. We say that a man discriminates between two objects when he behaves differently with respect to them, but discriminating is not itself behavior. We say that he represses behavior which has been punished when he engages in other behavior just because it displaces the punished behavior; but repressing is not action. We say that he decides upon a course of conduct either when he enters upon one course to the

exclusion of another, or when he alters some of the variables affecting his own behavior in order to bring this about; but there is no other "act of deciding." The difficulty is that when one uses terms which suggest an activity, one feels it necessary to invent an actor, and the subordinate personalities in the Freudian mental apparatus do, indeed, participate in just these activities rather than in the more specific behavior of the observable organism.

Among these activities are conspicuous instances involving the process of self-control—the so-called "Freudian mechanisms." These need not be regarded as activities of the individual or any subdivision thereof—they are not, for example, what happens when a skillful wish evades a censor—but simply as ways of representing relationships among responses and controlling variables. I have tried to demonstrate this by restating the Freudian mechanisms without reference to Freudian theory [in *Science and Human Behavior*].

5. Since Freud never developed a clear conception of the behavior of the organism and never approached many of the scientific problems peculiar to that subject matter, it is not surprising that he misinterpreted the nature of the observation of one's own behavior. This is admittedly a delicate subject, which presents problems which no one, perhaps, has adequately solved. But the act of self-observation can be represented within the framework of physical science. This involves questioning the reality of sensations, ideas, feelings, and other states of consciousness which many people regard as among the most immediate experiences of their life. Freud himself prepared us for this change. There is, perhaps, no experience more powerful than that which the mystic reports of his awareness of the presence of God. The psychoanalyst explains this in other ways. He himself, however, may insist upon the reality of certain experiences which others wish to question. There are other ways of describing what is actually seen or felt under such circumstances.

Each of us is in particularly close contact with a small part of the universe enclosed within his own skin. Under certain limited circumstances, we may come to react to that part of the universe in unusual ways. But it does not follow that that particular part has any special physical or non-physical properties or that our observations of it differ in any fundamental respect from our observations of the rest of the world. I have tried to show elsewhere⁴ how self-knowledge of this sort arises and why it is likely to be subject to limitations which are troublesome from the point of view of physical science. Freud's representations of these events was a particular

personal contribution influenced by his own cultural history. It is possible that science can now move on to a different description of them. If it is impossible to be wholly nonmetaphorical, at least we may improve upon our metaphors.

The crucial issue here is the Freudian distinction between the conscious and unconscious mind. Freud's contribution has been widely misunderstood. The important point was not that the individual was often unable to describe important aspects of his own behavior or identify important causal relationships but that his ability to describe them was irrelevant to the occurrence of the behavior or to the effectiveness of the causes. We begin by attributing the behavior of the individual to events in his genetic and environmental history. We then note that because of certain cultural practices, the individual may come to describe some of that behavior and some of those causal relationships. We may say that he is conscious of the parts he can describe and unconscious of the rest. But the act of self-description, as of self-observation, plays no part in the determination of action. It is superimposed upon behavior. Freud's argument that we need not be aware of important causes of conduct leads naturally to the broader conclusion that awareness of cause has nothing to do with causal effectiveness.

In addition to these specific consequences of Freud's mental apparatus in obscuring important details among the variables of which human behavior is a function and in leading to the neglect of important problems in the analysis of behavior as a primary datum, we have to note the most unfortunate effect of all. Freud's methodological strategy has prevented the incorporation of psychoanalysis into the body of science proper. It was inherent in the nature of such an explanatory system that its key entities would be unquantifiable in the sense in which entities in science are generally quantifiable, but the spatial and temporal dimensions of these entities have caused other kinds of trouble.

One can sense a certain embarrassment among psychoanalytic writers with respect to the primary entities of the mental apparatus. There is a predilection for terms which avoid the embarrassing question of the spatial dimensions, physical or otherwise, of terms at the primary level. Although it is occasionally necessary to refer to mental events and their qualities and to states of consciousness, the analyst usually moves on in some haste to less committal terms such as *forces*, *processes*, *organizations*, *tensions*, *systems*, and *mechanisms*. But all these imply terms at a lower level. The notion of a conscious or unconscious "force" may be a useful metaphor,

⁴ See page 370 below.

but if this is analogous to force in physics, what is the analogous mass which is analogously accelerated? Human behavior is in a state of flux and undergoing changes which we call "processes," but what is changing in what direction when we speak of, for example, an affective process? Psychological "organizations," "mental systems," "motivational interaction"—these all imply arrangements or relationships among *things*, but what are the things so related or arranged? Until this question has been answered the problem of the dimensions of the mental apparatus can scarcely be approached. It is not likely that the problem can be solved by working out independent units appropriate to the mental apparatus, although it has been proposed to undertake such a step in attempting to place psychoanalysis on a scientific footing.

Before one attempts to work out units of transference or scales of anxiety, or systems of mensuration appropriate to the regions of consciousness, it is worth asking whether there is not an alternative program for a *rapprochement* with physical science which would make such a task unnecessary. Freud could hope for an eventual union with physics or physiology only through the discovery of neurological mechanisms which would be the analogs of, or possibly only other aspects of, the features of his mental apparatus. Since this depended upon the prosecution of a science of neurology far beyond its current state of knowledge, it was not an attractive future. Freud appears never to have considered the possibility of bringing the concepts and theories of a psychological science into contact with the rest of physical and biological science by the simple expedient of an operational definition of terms. This would have placed the mental apparatus in jeopardy as a life goal, but it would have brought him back to the observable, manipulable, and preeminently physical variables with which he was in the last analysis dealing.

16

Psychology in the Understanding of Mental Disease

Any survey of the contributions which psychology can make to our understanding of mental disease will depend upon how psychology is defined. In practice, the methods and concepts of all four of the disciplines represented at this Conference overlap extensively. Narrowly considered, however, the special province of psychology may be taken to be the description of the behavior of the individual as a whole and the explanation of that behavior in terms of environmental factors and conditions. More specifically, psychology is concerned with recording and measuring human behavior and its various aspects, and with relating the quantities so measured to variables in the past and current environment. Many psychologists, of course, have broader interests. In addition to forces which are currently acting upon the organism, or have acted upon it in the past, they may be concerned with variables in its genetic history, the physiology of its parts, or, at the other extreme, its social environment or cultural history. A narrower delineation of the field is, though arbitrary, desirable for our present purposes.

Mental disease appears to refer to modes of behavior which are troublesome or dangerous either to the individual himself or to others. Behavior may be troublesome or dangerous by its very nature or because of the circumstances under which it occurs. It is not strictly correct to describe such behavior as "atypical," since extreme or unrepresentative values of many properties of behavior do not always present problems appropriately described as the result of disease. Genius is atypical but, presumably, healthy. It is probably also not of any great value to characterize trouble-some or dangerous behavior as "nonadaptive," or as violating some prin-

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REVIEWS

Verbal behavior. By B. F. SKINNER. (The Century Psychology Series.) Pp. viii, 478. New York: Appleton-Century-Crofts, Inc., 1957.

Reviewed by NOAM CHOMSKY, *Massachusetts Institute of Technology
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1. A great many linguists and philosophers concerned with language have expressed the hope that their studies might ultimately be embedded in a framework provided by behaviorist psychology, and that refractory areas of investigation, particularly those in which meaning is involved, will in this way be opened up to fruitful exploration. Since this volume is the first large-scale attempt to incorporate the major aspects of linguistic behavior within a behaviorist framework, it merits and will undoubtedly receive careful attention. Skinner is noted for his contributions to the study of animal behavior. The book under review is the product of study of linguistic behavior extending over more than twenty years. Earlier versions of it have been fairly widely circulated, and there are quite a few references in the psychological literature to its major ideas.

The problem to which this book is addressed is that of giving a 'functional analysis' of verbal behavior. By functional analysis, Skinner means identification of the variables that control this behavior and specification of how they interact to determine a particular verbal response. Furthermore, the controlling variables are to be described completely in terms of such notions as stimulus, reinforcement, deprivation, which have been given a reasonably clear meaning in animal experimentation. In other words, the goal of the book is to provide a way to predict and control verbal behavior by observing and manipulating the physical environment of the speaker.

Skinner feels that recent advances in the laboratory study of animal behavior permit us to approach this problem with a certain optimism, since 'the basic processes and relations which give verbal behavior its special characteristics are now fairly well understood ... the results [of this experimental work] have been surprisingly free of species restrictions. Recent work has shown that the methods can be extended to human behavior without serious modification' (3).¹

¹ Skinner's confidence in recent achievements in the study of animal behavior and their applicability to complex human behavior does not appear to be widely shared. In many recent publications of confirmed behaviorists there is a prevailing note of skepticism with regard to the scope of these achievements. For representative comments, see the contributions to *Modern learning theory* (by Estes et al.; New York, 1954); Bugelski, *Psychology of learning* (New York, 1956); Koch, in *Nebraska symposium on motivation* 58 (Lincoln, 1956); Verplanck, Learned and innate behavior, *Psych. rev.* 52.139 (1955). Perhaps the strongest view is that of Harlow, who has asserted (Mice, monkeys, men, and motives, *Psych. rev.* 60.23-32 [1953]) that 'a strong case can be made for the proposition that the importance of the psychological problems studied during the last 15 years has decreased as a negatively accelerated function approaching an asymptote of complete indifference.' Tinbergen, a leading representative of a different approach to animal behavior studies (comparative ethology), concludes a discussion of 'functional analysis' with the comment that 'we may

It is important to see clearly just what it is in Skinner's program and claims that makes them appear so bold and remarkable. It is not primarily the fact that he has set functional analysis as his problem, or that he limits himself to study of 'observables', i.e. input-output relations. What is so surprising is the particular limitations he has imposed on the way in which the observables of behavior are to be studied, and, above all, the particularly simple nature of the 'function' which, he claims, describes the causation of behavior. One would naturally expect that prediction of the behavior of a complex organism (or machine) would require, in addition to information about external stimulation, knowledge of the internal structure of the organism, the ways in which it processes input information and organizes its own behavior. These characteristics of the organism are in general a complicated product of inborn structure, the genetically determined course of maturation, and past experience. Insofar as independent neurophysiological evidence is not available, it is obvious that inferences concerning the structure of the organism are based on observation of behavior and outside events. Nevertheless, one's estimate of the relative importance of external factors and internal structure in the determination of behavior will have an important effect on the direction of research on linguistic (or any other) behavior, and on the kinds of analogies from animal behavior studies that will be considered relevant or suggestive.

Putting it differently, anyone who sets himself the problem of analyzing the causation of behavior will (in the absence of independent neurophysiological evidence) concern himself with the only data available, namely the record of inputs to the organism and the organism's present response, and will try to describe the function specifying the response in terms of the history of inputs. This is nothing more than the definition of his problem. There are no possible grounds for argument here, if one accepts the problem as legitimate, though Skinner has often advanced and defended this definition of a problem as if it were a thesis which other investigators reject. The differences that arise between those who affirm and those who deny the importance of the specific 'contribution of the organism' to learning and performance concern the particular character and complexity of this function, and the kinds of observations and research necessary for arriving at a precise specification of it. If the contribution of the organism is complex, the only hope of predicting behavior even in a gross way will be through a very indirect program of research that begins by studying the detailed character of the behavior itself and the particular capacities of the organism involved.

Skinner's thesis is that external factors consisting of present stimulation and the history of reinforcement (in particular the frequency, arrangement, and withholding of reinforcing stimuli) are of overwhelming importance, and that the general principles revealed in laboratory studies of these phenomena provide the basis for understanding the complexities of verbal behavior. He con-

now draw the conclusion that the causation of behavior is immensely more complex than was assumed in the generalizations of the past. A number of internal and external factors act upon complex central nervous structures. Second, it will be obvious that the facts at our disposal are very fragmentary indeed—*The study of instinct* 74 (Oxford, 1951).

dently and repeatedly voices his claim to have demonstrated that the contribution of the speaker is quite trivial and elementary, and that precise prediction of verbal behavior involves only specification of the few external factors that he has isolated experimentally with lower organisms.

Careful study of this book (and of the research on which it draws) reveals, however, that these astonishing claims are far from justified. It indicates, furthermore, that the insights that have been achieved in the laboratories of the reinforcement theorist, though quite genuine, can be applied to complex human behavior only in the most gross and superficial way, and that speculative attempts to discuss linguistic behavior in these terms alone omit from consideration factors of fundamental importance that are, no doubt, amenable to scientific study, although their specific character cannot at present be precisely formulated. Since Skinner's work is the most extensive attempt to accommodate human behavior involving higher mental faculties within a strict behaviorist schema of the type that has attracted many linguists and philosophers, as well as psychologists, a detailed documentation is of independent interest. The magnitude of the failure of this attempt to account for verbal behavior serves as a kind of measure of the importance of the factors omitted from consideration, and an indication of how little is really known about this remarkably complex phenomenon.

The force of Skinner's argument lies in the enormous wealth and range of examples for which he proposes a functional analysis. The only way to evaluate the success of his program and the correctness of his basic assumptions about verbal behavior is to review these examples in detail and to determine the precise character of the concepts in terms of which the functional analysis is presented. §2 of this review describes the experimental context with respect to which these concepts are originally defined. §§3–4 deal with the basic concepts 'stimulus', 'response', and 'reinforcement', §§6–10 with the new descriptive machinery developed specifically for the description of verbal behavior. In §5 we consider the status of the fundamental claim, drawn from the laboratory, which serves as the basis for the analogic guesses about human behavior that have been proposed by many psychologists. The final section (§11) will consider some ways in which further linguistic work may play a part in clarifying some of these problems.

2. Although this book makes no direct reference to experimental work, it can be understood only in terms of the general framework that Skinner has developed for the description of behavior. Skinner divides the responses of the animal into two main categories. *Respondents* are purely reflex responses elicited by particular stimuli. *Operants* are emitted responses, for which no obvious stimulus can be discovered. Skinner has been concerned primarily with operant behavior. The experimental arrangement that he introduced consists basically of a box with a bar attached to one wall in such a way that when the bar is pressed, a food pellet is dropped into a tray (and the bar press is recorded). A rat placed in the box will soon press the bar, releasing a pellet into the tray. This state of affairs, resulting from the bar press, increases the *strength* of the bar-

pressing operant. The food pellet is called a *reinforcer*; the event, a reinforcing event. The strength of an operant is defined by Skinner in terms of the rate of response during extinction (i.e. after the last reinforcement and before return to the preconditioning rate).

Suppose that release of the pellet is conditional on the flashing of a light. Then the rat will come to press the bar only when the light flashes. This is called *stimulus discrimination*. The response is called a *discriminated operant* and the light is called the *occasion* for its emission; this is to be distinguished from elicitation of a response by a stimulus in the case of the respondent.² Suppose that the apparatus is so arranged that bar-pressing of only a certain character (e.g. duration) will release the pellet. The rat will then come to press the bar in the required way. This process is called *response differentiation*. By successive slight changes in the conditions under which the response will be reinforced it is possible to shape the response of a rat or a pigeon in very surprising ways in a very short time, so that rather complex behavior can be produced by a process of successive approximation.

A stimulus can become reinforcing by repeated association with an already reinforcing stimulus. Such a stimulus is called a *secondary reinforcer*. Like many contemporary behaviorists, Skinner considers money, approval, and the like to be secondary reinforcers which have become reinforcing because of their association with food etc.³ Secondary reinforcers can be *generalized* by associating them with a variety of different primary reinforcers.

Another variable that can affect the rate of the bar-pressing operant is drive, which Skinner defines operationally in terms of hours of deprivation. His major scientific book, *Behavior of organisms*, is a study of the effects of food-deprivation and conditioning on the strength of the bar-pressing response of healthy mature rats. Probably Skinner's most original contribution to animal behavior studies has been his investigation of the effects of intermittent reinforcement, arranged in various different ways, presented in *Behavior of organisms* and extended (with pecking of pigeons as the operant under investigation) in the recent *Schedules of reinforcement* by Ferster and Skinner (1957). It is apparently

² In *Behavior of organisms* (New York, 1938), Skinner remarks that 'although a conditioned operant is the result of the correlation of the response with a particular reinforcement, a relation between it and a discriminative stimulus acting prior to the response is the almost universal rule' (178-9). Even emitted behavior is held to be produced by some sort of 'originating force' (51) which, in the case of operant behavior is not under experimental control. The distinction between eliciting stimuli, discriminated stimuli, and 'originating forces' has never been adequately clarified, and becomes even more confusing when private internal events are considered to be discriminated stimuli (see below).

³ In a famous experiment, chimpanzees were taught to perform complex tasks to receive tokens which had become secondary reinforcers because of association with food. The idea that money, approval, prestige, etc. actually acquire their motivating effects on human behavior according to this paradigm is unproved, and not particularly plausible. Many psychologists within the behaviorist movement are quite skeptical about this (cf. fn. 23). As in the case of most aspects of human behavior, the evidence about secondary reinforcement is so fragmentary, conflicting, and complex that almost any view can find some support.

these studies that Skinner has in mind when he refers to the recent advances in the study of animal behavior.⁴

The notions 'stimulus', 'response', 'reinforcement' are relatively well defined with respect to the bar-pressing experiments and others similarly restricted. Before we can extend them to real-life behavior, however, certain difficulties must be faced. We must decide, first of all, whether any physical event to which the organism is capable of reacting is to be called a stimulus on a given occasion, or only one to which the organism in fact reacts; and correspondingly, we must decide whether any part of behavior is to be called a response, or only one connected with stimuli in lawful ways. Questions of this sort pose something of a dilemma for the experimental psychologist. If he accepts the broad definitions, characterizing any physical event impinging on the organism as a stimulus and any part of the organism's behavior as a response, he must conclude that behavior has not been demonstrated to be lawful. In the present state of our knowledge, we must attribute an overwhelming influence on actual behavior to ill-defined factors of attention, set, volition, and caprice. If we accept the narrower definitions, then behavior is lawful by definition (if it consists of responses); but this fact is of limited significance, since most of what the animal does will simply not be considered behavior. Hence the psychologist either must admit that behavior is not lawful (or that he cannot at present show that it is—not at all a damaging admission for a developing science), or must restrict his attention to those highly limited areas in which it is lawful (e.g. with adequate controls, bar-pressing in rats; lawfulness of the observed behavior provides, for Skinner, an implicit definition of a good experiment).

Skinner does not consistently adopt either course. He utilizes the experimental results as evidence for the scientific character of his system of behavior, and analogic guesses (formulated in terms of a metaphoric extension of the technical vocabulary of the laboratory) as evidence for its scope. This creates the illusion of a rigorous scientific theory with a very broad scope, although in fact the terms used in the description of real-life and of laboratory behavior may be mere homonyms, with at most a vague similarity of meaning. To substantiate this

⁴ Skinner's remark quoted above about the generality of his basic results must be understood in the light of the experimental limitations he has imposed. If it were true in any deep sense that the basic processes in language are well understood and free of species restrictions, it would be extremely odd that language is limited to man. With the exception of a few scattered observations (cf. his article, *A case history in scientific method*, *The American psychologist* 11.221-33 [1956]), Skinner is apparently basing this claim on the fact that qualitatively similar results are obtained with bar-pressing of rats and pecking of pigeons under special conditions of deprivation and various schedules of reinforcement. One immediately questions how much can be based on these facts, which are in part at least an artifact traceable to experimental design and the definition of 'stimulus' and 'response' in terms of 'smooth dynamic curves' (see below). The dangers inherent in any attempt to 'extrapolate' to complex behavior from the study of such simple responses as bar-pressing should be obvious, and have often been commented on (cf. e.g. Harlow, op.cit.). The generality of even the simplest results is open to serious question. Cf. in this connection Bitterman, Wodinsky, and Candaland, *Some comparative psychology*, *Am. jour. of psych.* 71.94-110 (1958), where it is shown that there are important qualitative differences in solution of comparable elementary problems by rats and fish.

evaluation, a critical account of his book must show that with a literal reading (where the terms of the descriptive system have something like the technical meanings given in Skinner's definitions) the book covers almost no aspect of linguistic behavior, and that with a metaphoric reading, it is no more scientific than the traditional approaches to this subject matter, and rarely as clear and careful.⁵

3. Consider first Skinner's use of the notions 'stimulus' and 'response'. In *Behavior of organisms* (9) he commits himself to the narrow definitions for these terms. A part of the environment and a part of behavior are called stimulus (eliciting, discriminated, or reinforcing) and response, respectively, only if they are lawfully related; that is, if the 'dynamic laws' relating them show smooth and reproducible curves. Evidently stimuli and responses, so defined, have not been shown to figure very widely in ordinary human behavior.⁶ We can, in the face of presently available evidence, continue to maintain the lawfulness of the relation between stimulus and response only by depriving them of their objective character. A typical example of 'stimulus control' for Skinner would be the response to a piece of music with the utterance *Mozart* or to a painting with the response *Dutch*. These responses are asserted to be 'under the control of extremely subtle properties' of the physical object or event (108). Suppose instead of saying *Dutch* we had said *Clashes with the wallpaper, I thought you liked abstract work, Never saw it before, Tilted, Hanging too low, Beautiful, Hideous, Remember our camping trip last summer?*, or whatever else might come into our minds when looking at a picture (in Skinnerian translation, whatever other responses exist in sufficient strength). Skinner could only say that each of these responses is under the control of some other stimulus property of the physical object. If we look at a red chair and say *red*, the response is under the control of the stimulus 'redness'; if we say *chair*, it is under the control of the collection of properties (for Skinner, the object) 'chairness' (110), and similarly for any other response. This device is as simple as it is empty. Since properties are free for the asking

⁵ An analogous argument, in connection with a different aspect of Skinner's thinking, is given by Scriven in *A study of radical behaviorism = Univ. of Minn. studies in philosophy of science*, Vol. 1. Cf. Verplanck's contribution to *Modern learning theory* (283-8) for more general discussion of the difficulties in formulating an adequate definition of 'stimulus' and 'response'. He concludes, quite correctly, that in Skinner's sense of the word, stimuli are not objectively identifiable independently of the resulting behavior, nor are they manipulable. Verplanck presents a clear discussion of many other aspects of Skinner's system, commenting on the untestability of many of the so-called 'laws of behavior' and the limited scope of many of the others, and the arbitrary and obscure character of Skinner's notion of 'lawful relation'; and, at the same time, noting the importance of the experimental data that Skinner has accumulated.

⁶ In *Behavior of organisms*, Skinner apparently was willing to accept this consequence. He insists (41-2) that the terms of casual description in the popular vocabulary are not validly descriptive until the defining properties of stimulus and response are specified, the correlation is demonstrated experimentally, and the dynamic changes in it are shown to be lawful. Thus, in describing a child as hiding from a dog, 'it will not be enough to dignify the popular vocabulary by appealing to essential properties of "dogness" or "hidingness" and to suppose them intuitively known.' But this is exactly what Skinner does in the book under review, as we will see directly.

(we have as many of them as we have nonsynonymous descriptive expressions in our language, whatever this means exactly), we can account for a wide class of responses in terms of Skinnerian functional analysis by identifying the 'controlling stimuli'. But the word 'stimulus' has lost all objectivity in this usage. Stimuli are no longer part of the outside physical world; they are driven back into the organism. We identify the stimulus when we hear the response. It is clear from such examples, which abound, that the talk of 'stimulus control' simply disguises a complete retreat to mentalistic psychology. We cannot predict verbal behavior in terms of the stimuli in the speaker's environment, since we do not know what the current stimuli are until he responds. Furthermore, since we cannot control the property of a physical object to which an individual will respond, except in highly artificial cases, Skinner's claim that his system, as opposed to the traditional one, permits the practical control of verbal behavior⁷ is quite false.

Other examples of 'stimulus control' merely add to the general mystification. Thus a proper noun is held to be a response 'under the control of a specific person or thing' (as controlling stimulus, 113). I have often used the words *Eisenhower* and *Moscow*, which I presume are proper nouns if anything is, but have never been 'stimulated' by the corresponding objects. How can this fact be made compatible with this definition? Suppose that I use the name of a friend who is not present. Is this an instance of a proper noun under the control of the friend as stimulus? Elsewhere it is asserted that a stimulus controls a response in the sense that presence of the stimulus increases the probability of the response. But it is obviously untrue that the probability that a speaker will produce a full name is increased when its bearer faces the speaker. Furthermore,

⁷ 253 f. and elsewhere, repeatedly. As an example of how well we can control behavior using the notions developed in this book, Skinner shows here how he would go about evoking the response *pencil*. The most effective way, he suggests, is to say to the subject 'Please say *pencil*' (our chances would, presumably, be even further improved by use of 'aversive stimulation', e.g. holding a gun to his head). We can also 'make sure that no pencil or writing instrument is available, then hand our subject a pad of paper appropriate to pencil sketching, and offer him a handsome reward for a recognizable picture of a cat.' It would also be useful to have voices saying *pencil* or *pen* and ... in the background; signs reading *pencil* or *pen and ...*; or to place a 'large and unusual pencil in an unusual place clearly in sight'. 'Under such circumstances, it is highly probable that our subject will say *pencil*.' 'The available techniques are all illustrated in this sample.' These contributions of behavior theory to the practical control of human behavior are amply illustrated elsewhere in the book, as when Skinner shows (113-4) how we can evoke the response *red* (the device suggested is to hold a red object before the subject and say 'Tell me what color this is').

In fairness, it must be mentioned that there are certain nontrivial applications of 'operant conditioning' to the control of human behavior. A wide variety of experiments have shown that the number of plural nouns (for example) produced by a subject will increase if the experimenter says 'right' or 'good' when one is produced (similarly, positive attitudes on a certain issue, stories with particular content, etc.; cf. Krasner, Studies of the conditioning of verbal behavior, *Psych. bull.*, Vol. 55 [1958], for a survey of several dozen experiments of this kind, mostly with positive results). It is of some interest that the subject is usually unaware of the process. Just what insight this gives into normal verbal behavior is not obvious. Nevertheless, it is an example of positive and not totally expected results using the Skinnerian paradigm.

how can one's own name be a proper noun in this sense? A multitude of similar questions arise immediately. It appears that the word 'control' here is merely a misleading paraphrase for the traditional 'denote' or 'refer'. The assertion (115) that so far as the speaker is concerned, the relation of reference is 'simply the probability that the speaker will emit a response of a given form in the presence of a stimulus having specified properties' is surely incorrect if we take the words 'presence', 'stimulus', and 'probability' in their literal sense. That they are not intended to be taken literally is indicated by many examples, as when a response is said to be 'controlled' by a situation or state of affairs as 'stimulus'. Thus, the expression *a needle in a haystack* 'may be controlled as a unit by a particular type of situation' (116); the words in a single part of speech, e.g. all adjectives, are under the control of a single set of subtle properties of stimuli (121); 'the sentence *The boy runs a store* is under the control of an extremely complex stimulus situation' (335); '*He is not at all well* may function as a standard response under the control of a state of affairs which might also control *He is ailing*' (325); when an envoy observes events in a foreign country and reports upon his return, his report is under 'remote stimulus control' (416); the statement *This is war* may be a response to a 'confusing international situation' (441); the suffix *-ed* is controlled by that 'subtle property of stimuli which we speak of as action-in-the-past' (121) just as the *-s* in *The boy runs* is under the control of such specific features of the situation as its 'currency' (332). No characterization of the notion 'stimulus control' that is remotely related to the bar-pressing experiment (or that preserves the faintest objectivity) can be made to cover a set of examples like these, in which, for example, the 'controlling stimulus' need not even impinge on the responding organism.

Consider now Skinner's use of the notion 'response'. The problem of identifying units in verbal behavior has of course been a primary concern of linguists, and it seems very likely that experimental psychologists should be able to provide much-needed assistance in clearing up the many remaining difficulties in systematic identification. Skinner recognizes (20) the fundamental character of the problem of identification of a unit of verbal behavior, but is satisfied with an answer so vague and subjective that it does not really contribute to its solution. The unit of verbal behavior—the verbal operant—is defined as a class of responses of identifiable form functionally related to one or more controlling variables. No method is suggested for determining in a particular instance what are the controlling variables, how many such units have occurred, or where their boundaries are in the total response. Nor is any attempt made to specify how much or what kind of similarity in form or 'control' is required for two physical events to be considered instances of the same operant. In short, no answers are suggested for the most elementary questions that must be asked of anyone proposing a method for description of behavior. Skinner is content with what he calls an 'extrapolation' of the concept of operant developed in the laboratory to the verbal field. In the typical Skinnerian experiment, the problem of identifying the unit of behavior is not too crucial. It is defined, by fiat, as a recorded peck or bar-press, and systematic variations in the rate of this operant and its

resistance to extinction are studied as a function of deprivation and scheduling of reinforcement (pellets). The operant is thus defined with respect to a particular experimental procedure. This is perfectly reasonable, and has led to many interesting results. It is, however, completely meaningless to speak of extrapolating this concept of operant to ordinary verbal behavior. Such 'extrapolation' leaves us with no way of justifying one or another decision about the units in the 'verbal repertoire'.

Skinner specifies 'response strength' as the basic datum, the basic dependent variable in his functional analysis. In the bar-pressing experiment, response strength is defined in terms of rate of emission during extinction. Skinner has argued⁸ that this is 'the only datum that varies significantly and in the expected direction under conditions which are relevant to the "learning process".' In the book under review, response strength is defined as 'probability of emission' (22). This definition provides a comforting impression of objectivity, which, however, is quickly dispelled when we look into the matter more closely. The term 'probability' has some rather obscure meaning for Skinner in this book.⁹ We are told, on the one hand, that 'our evidence for the contribution of each variable [to response strength] is based on observation of frequencies alone' (28). At the same time, it appears that frequency is a very misleading measure of strength, since, for example, the frequency of a response may be 'primarily attributable to the frequency of occurrence of controlling variables' (27). It is not clear how the frequency of a response can be attributable to anything BUT the frequency of occurrence of its controlling variables if we accept Skinner's view that the behavior occurring in a given situation is 'fully determined' by the relevant controlling variables (175, 228). Furthermore, although the evidence for the contribution of each variable to response strength is based on observation of frequencies alone, it turns out that 'we base the notion of strength upon several kinds of evidence' (22), in particular (22-8): emission of the response (particularly in unusual circumstances), energy level (stress), pitch level, speed and delay of emission, size of letters etc. in writing, immediate repetition, and—a final factor, relevant but misleading—over-all frequency.

Of course, Skinner recognizes that these measures do not co-vary, because (among other reasons) pitch, stress, quantity, and reduplication may have in-

⁸ Are theories of learning necessary?, *Psych. rev.* 57.193-216 (1950).

⁹ And elsewhere. In his paper Are theories of learning necessary?, Skinner considers the problem how to extend his analysis of behavior to experimental situations in which it is impossible to observe frequencies, rate of response being the only valid datum. His answer is that 'the notion of probability is usually extrapolated to cases in which a frequency analysis cannot be carried out. In the field of behavior we arrange a situation in which frequencies are available as data, but we use the notion of probability in analyzing or formulating instances of even types of behavior which are not susceptible to this analysis' (199). There are, of course, conceptions of probability not based directly on frequency, but I do not see how any of these apply to the cases that Skinner has in mind. I see no way of interpreting the quoted passage other than as signifying an intention to use the word 'probability' in describing behavior quite independently of whether the notion of probability is at all relevant.

ternal linguistic functions.¹⁰ However, he does not hold these conflicts to be very important, since the proposed factors indicative of strength are 'fully understood by everyone' in the culture (27). For example, 'if we are shown a prized work of art and exclaim *Beautiful!*', the speed and energy of the response will not be lost on the owner.' It does not appear totally obvious that in this case the way to impress the owner is to shriek *Beautiful* in a loud, high-pitched voice, repeatedly, and with no delay (high response strength). It may be equally effective to look at the picture silently (long delay), and then to murmur *Beautiful* in a soft, low-pitched voice (by definition, very low response strength).

It is not unfair, I believe, to conclude from Skinner's discussion of response strength, the 'basic datum' in functional analysis, that his 'extrapolation' of the notion of probability can best be interpreted as, in effect, nothing more than a decision to use the word 'probability', with its favorable connotations of objectivity, as a cover term to paraphrase such low-status words as 'interest', 'intention', 'belief', and the like. This interpretation is fully justified by the way in which Skinner uses the terms 'probability' and 'strength'. To cite just one example, Skinner defines the process of confirming an assertion in science as one of 'generating additional variables to increase its probability' (425), and more generally, its strength (425–9). If we take this suggestion quite literally, the degree of confirmation of a scientific assertion can be measured as a simple function of the loudness, pitch, and frequency with which it is proclaimed, and a general procedure for increasing its degree of confirmation would be, for instance, to train machine guns on large crowds of people who have been instructed to shout it. A better indication of what Skinner probably has in mind here is given by his description of how the theory of evolution, as an example, is confirmed. This 'single set of verbal responses ... is made more plausible—is strengthened—by several types of construction based upon verbal responses in geology, paleontology, genetics, and so on' (427). We are no doubt to interpret the terms 'strength' and 'probability' in this context as paraphrases of more familiar locutions such as 'justified belief' or 'warranted assertability', or something of the sort. Similar latitude of interpretation is presumably expected when we read that 'frequency of effective action accounts in turn for what we may call the listener's "belief"' (88) or that 'our belief in what someone tells us is similarly a function of, or identical with, our tendency to act upon the verbal stimuli which he provides' (160).¹¹

¹⁰ Fortunately, 'In English this presents no great difficulty' since, for example, 'relative pitch levels ... are not ... important' (25). No reference is made to the numerous studies of the function of relative pitch levels and other intonational features in English.

¹¹ The vagueness of the word 'tendency', as opposed to 'frequency', saves the latter quotation from the obvious incorrectness of the former. Nevertheless, a good deal of stretching is necessary. If 'tendency' has anything like its ordinary meaning, the remark is clearly false. One may believe strongly the assertion that Jupiter has four moons, that many of Sophocles' plays have been irretrievably lost, that the earth will burn to a crisp in ten million years, etc., without experiencing the slightest tendency to act upon these verbal stimuli. We may, of course, turn Skinner's assertion into a very unilluminating truth by defining 'tendency to act' to include tendencies to answer questions in certain ways, under motivation to say what one believes is true.

I think it is evident, then, that Skinner's use of the terms 'stimulus', 'control', 'response', and 'strength' justify the general conclusion stated in the last paragraph of §2 above. The way in which these terms are brought to bear on the actual data indicates that we must interpret them as mere paraphrases for the popular vocabulary commonly used to describe behavior, and as having no particular connection with the homonymous expressions used in the description of laboratory experiments. Naturally, this terminological revision adds no objectivity to the familiar 'mentalistic' mode of description.

4. The other fundamental notion borrowed from the description of bar-pressing experiments is 'reinforcement'. It raises problems which are similar, and even more serious. In *Behavior of organisms*, 'the operation of reinforcement is defined as the presentation of a certain kind of stimulus in a temporal relation with either a stimulus or response. A reinforcing stimulus is defined as such by its power to produce the resulting change [in strength]. There is no circularity about this: some stimuli are found to produce the change, others not, and they are classified as reinforcing and non-reinforcing accordingly' (62). This is a perfectly appropriate definition¹² for the study of schedules of reinforcement. It is perfectly useless, however, in the discussion of real-life behavior, unless we can somehow characterize the stimuli which are reinforcing (and the situations and conditions under which they are reinforcing). Consider first of all the status of the basic principle that Skinner calls the 'law of conditioning' (law of effect). It reads: 'if the occurrence of an operant is followed by presence of a reinforcing stimulus, the strength is increased' (*Behavior of organisms* 21). As 'reinforcement' was defined, this law becomes a tautology.¹³ For Skinner, learning is just change in response strength.¹⁴ Although the statement that presence of reinforcement is a sufficient condition for learning and maintenance of behavior is vacuous, the claim that it is a necessary condition may have some content, depending on how the class of reinforcers (and appropriate situations) is characterized. Skinner does make it very clear that in his view reinforcement is a necessary condition for language learning and for the continued availability of linguistic responses in the adult.¹⁵ However, the looseness of the term 'reinforcement' as

¹² One should add, however, that it is in general not the stimulus as such that is reinforcing, but the stimulus in a particular situational context. Depending on experimental arrangement, a particular physical event or object may be reinforcing, punishing, or unnoticed. Because Skinner limits himself to a particular, very simple experimental arrangement, it is not necessary for him to add this qualification, which would not be at all easy to formulate precisely. But it is of course necessary if he expects to extend his descriptive system to behavior in general.

¹³ This has been frequently noted.

¹⁴ See, for example, Are theories of learning necessary? 199. Elsewhere, he suggests that the term 'learning' be restricted to complex situations, but these are not characterized.

¹⁵ 'A child acquires verbal behavior when relatively unpatterned vocalizations, selectively reinforced, gradually assume forms which produce appropriate consequences in a given verbal community' (31). 'Differential reinforcement shapes up all verbal forms, and when a prior stimulus enters into the contingency, reinforcement is responsible for its resulting control ... The availability of behavior, its probability or strength, depends on whether reinforcements *continue* in effect and according to what schedules' (203-4). Elsewhere, frequently.

Skinner uses it in the book under review makes it entirely pointless to inquire into the truth or falsity of this claim. Examining the instances of what Skinner calls 'reinforcement', we find that not even the requirement that a reinforcer be an identifiable stimulus is taken seriously. In fact, the term is used in such a way that the assertion that reinforcement is necessary for learning and continued availability of behavior is likewise empty.

To show this, we consider some example of 'reinforcement'. First of all, we find a heavy appeal to automatic self-reinforcement. Thus, 'a man talks to himself ... because of the reinforcement he receives' (163); 'the child is reinforced automatically when he duplicates the sounds of airplanes, streetcars ...' (164); 'the young child alone in the nursery may automatically reinforce his own exploratory verbal behavior when he produces sounds which he has heard in the speech of others' (58); 'the speaker who is also an accomplished listener "knows when he has correctly echoed a response" and is reinforced thereby' (68); thinking is 'behaving which automatically affects the behavior and is reinforcing because it does so' (438; cutting one's finger should thus be reinforcing, and an example of thinking); 'the verbal fantasy, whether overt or covert, is automatically reinforcing to the speaker as listener. Just as the musician plays or composes what he is reinforced by hearing, or as the artist paints what reinforces him visually, so the speaker engaged in verbal fantasy says what he is reinforced by hearing or writes what he is reinforced by reading' (439); similarly, care in problem solving, and rationalization, are automatically self-reinforcing (442-3). We can also reinforce someone by emitting verbal behavior as such (since this rules out a class of aversive stimulations, 167), by not emitting verbal behavior (keeping silent and paying attention, 199), or by acting appropriately on some future occasion (152: 'the strength of [the speaker's] behavior is determined mainly by the behavior which the listener will exhibit with respect to a given state of affairs'; this Skinner considers the general case of 'communication' or 'letting the listener know'). In most such cases, of course, the speaker is not present at the time when the reinforcement takes place, as when 'the artist ... is reinforced by the effects his works have upon ... others' (224), or when the writer is reinforced by the fact that his 'verbal behavior may reach over centuries or to thousands of listeners or readers at the same time. The writer may not be reinforced often or immediately, but his net reinforcement may be great' (206; this accounts for the great 'strength' of his behavior). An individual may also find it reinforcing to injure someone by criticism or by bringing bad news, or to publish an experimental result which upsets the theory of a rival (154), to describe circumstances which would be reinforcing if they were to occur (165), to avoid repetition (222), to 'hear' his own name though in fact it was not mentioned or to hear nonexistent words in his child's babbling (259), to clarify or otherwise intensify the effect of a stimulus which serves an important discriminative function (416), etc.

From this sample, it can be seen that the notion of reinforcement has totally lost whatever objective meaning it may ever have had. Running through these examples, we see that a person can be reinforced though he emits no response at all, and that the reinforcing 'stimulus' need not impinge on the 'reinforced person'

or need not even exist (it is sufficient that it be imagined or hoped for). When we read that a person plays what music he likes (165), says what he likes (165), thinks what he likes (438-9), reads what books he likes (163), etc., BECAUSE he finds it reinforcing to do so, or that we write books or inform others of facts BECAUSE we are reinforced by what we hope will be the ultimate behavior of reader or listener, we can only conclude that the term 'reinforcement' has a purely ritual function. The phrase 'X is reinforced by Y (stimulus, state of affairs, event, etc.)' is being used as a cover term for 'X wants Y', 'X likes Y', 'X wishes that Y were the case', etc. Invoking the term 'reinforcement' has no explanatory force, and any idea that this paraphrase introduces any new clarity or objectivity into the description of wishing, liking, etc., is a serious delusion. The only effect is to obscure the important differences among the notions being paraphrased. Once we recognize the latitude with which the term 'reinforcement' is being used, many rather startling comments lose their initial effect—for instance, that the behavior of the creative artist is 'controlled entirely by the contingencies of reinforcement' (150). What has been hoped for from the psychologist is some indication how the casual and informal description of everyday behavior in the popular vocabulary can be explained or clarified in terms of the notions developed in careful experiment and observation, or perhaps replaced in terms of a better scheme. A mere terminological revision, in which a term borrowed from the laboratory is used with the full vagueness of the ordinary vocabulary, is of no conceivable interest.

It seems that Skinner's claim that all verbal behavior is acquired and maintained in 'strength' through reinforcement is quite empty, because his notion of reinforcement has no clear content, functioning only as a cover term for any factor, detectable or not, related to acquisition or maintenance of verbal behavior.¹⁶ Skinner's use of the term 'conditioning' suffers from a similar difficulty. Pavlovian and operant conditioning are processes about which psychologists have developed real understanding. Instruction of human beings is not. The claim that instruction and imparting of information are simply matters of conditioning (357-66) is pointless. The claim is true, if we extend the term 'conditioning' to cover these processes, but we know no more about them after having revised this term in such a way as to deprive it of its relatively clear and objective character. It is, as far as we know, quite false, if we use 'conditioning' in its literal sense. Similarly, when we say that 'it is the function of predication to facilitate the transfer of response from one term to another or from one object to another' (361), we have said nothing of any significance. In what sense is this true of the predication *Whales are mammals?* Or, to take Skinner's example, what point is there in saying that the effect of *The telephone is out of order* on the listener is to bring behavior formerly controlled by the stimulus *out of order* under control of the stimulus *telephone* (or the telephone itself) by a process of simple conditioning (362)? What laws of conditioning hold in this case? Further-

¹⁶ Talk of schedules of reinforcement here is entirely pointless. How are we to decide, for example, according to what schedules covert reinforcement is 'arranged', as in thinking or verbal fantasy, or what the scheduling is of such factors as silence, speech, and appropriate future reactions to communicated information?

more, what behavior is 'controlled' by the stimulus *out of order*, in the abstract? Depending on the object of which this is predicated, the present state of motivation of the listener, etc., the behavior may vary from rage to pleasure, from fixing the object to throwing it out, from simply not using it to trying to use it in the normal way (e.g. to see if it is really out of order), and so on. To speak of 'conditioning' or 'bringing previously available behavior under control of a new stimulus' in such a case is just a kind of play-acting at science. Cf. also footnote 43.

5. The claim that careful arrangement of contingencies of reinforcement by the verbal community is a necessary condition for language learning has appeared, in one form or another, in many places.¹⁷ Since it is based not on actual observation, but on analogies to laboratory study of lower organisms, it is important to determine the status of the underlying assertion within experimental psychology proper. The most common characterization of reinforcement (one which Skinner explicitly rejects, incidentally) is in terms of drive reduction. This characterization can be given substance by defining drives in some way independently of what in fact is learned. If a drive is postulated on the basis of the fact that learning takes place, the claim that reinforcement is necessary for learning will again become as empty as it is in the Skinnerian framework. There is an extensive literature on the question of whether there can be learning without drive-reduction (latent learning). The 'classical' experiment of Blodgett indicated that rats who had explored a maze without reward showed a marked drop in number of errors (as compared to a control group which had not explored the maze) upon introduction of a food reward, indicating that the rat had learned the structure of the maze without reduction of the hunger drive. Drive-reduction theorists countered with an exploratory drive which was reduced during the prereward learning, and claimed that a slight decrement in errors could be noted before food reward. A wide variety of experiments, with somewhat conflicting results, have been carried out with a similar design.¹⁸ Few investigators still doubt the existence of the phenomenon. Hilgard, in his general review of learning theory,¹⁹ concludes that 'there is no longer any doubt but that, under appropriate circumstances, latent learning is demonstrable.'

More recent work has shown that novelty and variety of stimulus are sufficient

¹⁷ See, for example, Miller and Dollard, *Social learning and imitation* 82-3 (New York, 1941), for a discussion of the 'meticulous training' that they seem to consider necessary for a child to learn the meanings of words and syntactic patterns. The same notion is implicit in Mowrer's speculative account of how language might be acquired, in *Learning theory and personality dynamics*, Chapter 23 (New York, 1950). Actually, the view appears to be quite general.

¹⁸ For a general review and analysis of this literature, see Thistlthwaite, A critical review of latent learning and related experiments, *Psych. bull.* 48.97-129 (1951). MacCorquodale and Meehl, in their contribution to *Modern learning theory*, carry out a serious and considered attempt to handle the latent learning material from the standpoint of drive-reduction theory, with (as they point out) not entirely satisfactory results. Thorpe reviews the literature from the standpoint of the ethologist, adding also material on homing and topographical orientation (*Learning and instinct in animals* [Cambridge, 1956]).

¹⁹ *Theories of learning* 214 (1956).

to arouse curiosity in the rat and to motivate it to explore (visually), and in fact, to learn (since on a presentation of two stimuli, one novel, one repeated, the rat will attend to the novel one);²⁰ that rats will learn to choose the arm of a single-choice maze that leads to a complex maze, running through this being their only 'reward';²¹ that monkeys can learn object discriminations and maintain their performance at a high level of efficiency with visual exploration (looking out of a window for 30 seconds) as the only reward;²² and, perhaps most strikingly of all, that monkeys and apes will solve rather complex manipulation problems that are simply placed in their cages, and will solve discrimination problems with only exploration and manipulation as incentives.²³ In these cases, solving the problem is apparently its own 'reward'. Results of this kind can be handled by reinforcement theorists only if they are willing to set up curiosity, exploration, and manipulation drives, or to speculate somehow about acquired drives²⁴ for which there is no evidence outside of the fact that learning takes place in these cases.

²⁰ Berlyne, Novelty and curiosity as determinants of exploratory behavior, *Brit. jour. of psych.* 41.68–80 (1950); id., Perceptual curiosity in the rat, *Jour. of comp. physiol. psych.* 48.238–46 (1955); Thompson and Solomon, Spontaneous pattern discrimination in the rat, *ibid.* 47.104–7 (1954).

²¹ Montgomery, The role of the exploratory drive in learning, *ibid.* 60.3. Many other papers in the same journal are designed to show that exploratory behavior is a relatively independent primary 'drive' aroused by novel external stimulation.

²² Butler, Discrimination learning by Rhesus monkeys to visual-exploration motivation, *ibid.* 46.95–8 (1953). Later experiments showed that this 'drive' is highly persistent, as opposed to derived drives which rapidly extinguish.

²³ Harlow, Harlow, and Meyer, Learning motivated by a manipulation drive, *Jour. exp. psych.* 40.228–34 (1950), and later investigations initiated by Harlow. Harlow has been particularly insistent on maintaining the inadequacy of physiologically based drives and homeostatic need states for explaining the persistence of motivation and rapidity of learning in primates. He points out, in many papers, that curiosity, play, exploration, and manipulation are, for primates, often more potent drives than hunger and the like, and that they show none of the characteristics of acquired drives. Hebb also presents behavioral and supporting neurological evidence in support of the view that in higher animals there is a positive attraction in work, risk, puzzle, intellectual activity, mild fear and frustration, etc. (*Drives and the CNS, Psych. rev.* 62.243–54 [1955]). He concludes that 'we need not work out tortuous and improbable ways to explain why men work for money, why children learn without pain, why people dislike doing nothing.'

In a brief note (Early recognition of the manipulative drive in monkeys, *British journal of animal behaviour* 3.71–2 [1955]), W. Dennis calls attention to the fact that early investigators (Romanes, 1882; Thorndike, 1901), whose 'perception was relatively unaffected by learning theory, did note the intrinsically motivated behavior of monkeys', although, he asserts, no similar observations on monkeys have been made until Harlow's experiments. He quotes Romanes (*Animal intelligence* [1882]) as saying that 'much the most striking feature in the psychology of this animal, and the one which is least like anything met with in other animals, was the tireless spirit of investigation.' Analogous developments, in which genuine discoveries have blinded systematic investigators to the important insights of earlier work, are easily found within recent structural linguistics as well.

²⁴ Thus J. S. Brown, in commenting on a paper of Harlow's in *Current theory and research in motivation* (Lincoln, 1953), argues that 'in probably every instance [of the experiments cited by Harlow] an ingenious drive-reduction theorist could find some fragment of fear, insecurity, frustration, or whatever, that he could insist was reduced and hence was reinforcing' (53). The same sort of thing could be said for the ingenious phlogiston or ether theorist.

There is a variety of other kinds of evidence that has been offered to challenge the view that drive-reduction is necessary for learning. Results on sensory-sensory conditioning have been interpreted as demonstrating learning without drive-reduction.²⁵ Olds has reported reinforcement by direct stimulation of the brain, from which he concludes that reward need not satisfy a physiological need or withdraw a drive stimulus.²⁶ The phenomenon of imprinting, long observed by zoologists, is of particular interest in this connection. Some of the most complex patterns of behavior of birds, in particular, are directed towards objects and animals of the type to which they have been exposed at certain critical early periods of life.²⁷ Imprinting is the most striking evidence for the innate disposition of the animal to learn in a certain direction, and to react appropriately to patterns and objects of certain restricted types, often only long after the original learning has taken place. It is, consequently, unrewarded learning, though the resulting patterns of behavior may be refined through reinforcement. Acquisition of the typical songs of song birds is, in some cases, a type of imprinting. Thorpe reports studies that show 'that some characteristics of the normal song have been learnt in the earliest youth, before the bird itself is able to produce any kind of full song'.²⁸ The phenomenon of imprinting has recently been investigated under laboratory conditions and controls with positive results.²⁹

Phenomena of this general type are certainly familiar from everyday experience. We recognize people and places to which we have given no particular attention. We can look up something in a book and learn it perfectly well with no other motive than to confute reinforcement theory, or out of boredom, or idle curiosity. Everyone engaged in research must have had the experience of working with feverish and prolonged intensity to write a paper which no one else will read or to solve a problem which no one else thinks important and which will bring no conceivable reward—which may only confirm a general opinion that the researcher is wasting his time on irrelevancies. The fact that rats and monkeys do likewise is interesting, and important to show in careful experiment. In fact, studies of behavior of the type mentioned above have an independent and positive significance that far outweighs their incidental importance in bringing into question the claim that learning is impossible without drive-reduction. It is not at all unlikely that insights arising from animal behavior studies with this broadened scope may have the kind of relevance to such complex activities as verbal behavior that reinforcement theory has, so far, failed to exhibit. In any event, in the light of presently available evidence, it is difficult to see how anyone

²⁵ Cf. Birch and Bitterman, Reinforcement and learning: The process of sensory integration, *Psych. rev.* 56.292-308 (1949).

²⁶ See, for example, his paper A physiological study of reward in McClelland (ed.), *Studies in motivation* 134-43 (New York, 1955).

²⁷ See Thorpe, op.cit., particularly 115-8 and 337-76, for an excellent discussion of this phenomenon, which has been brought to prominence particularly by the work of K. Lorenz (cf. *Der Kumpan in der Umwelt des Vogels*, parts of which are reprinted in English translation in Schiller (ed.), *Instinctive behavior* 83-128 (New York, 1957)).

²⁸ Op.cit. 372.

²⁹ See e.g. Jaynes, Imprinting: Interaction of learned and innate behavior, *Jour. of comp. physiol. psych.* 49.201-6 (1956), where the conclusion is reached that 'the experiments prove that without any observable reward young birds of this species follow a moving stimulus object and very rapidly come to prefer that object to others.'

can be willing to claim that reinforcement is necessary for learning, if reinforcement is taken seriously as something identifiable independently of the resulting change in behavior.

Similarly, it seems quite beyond question that children acquire a good deal of their verbal and nonverbal behavior by casual observation and imitation of adults and other children.³⁰ It is simply not true that children can learn language only through 'meticulous care' on the part of adults who shape their verbal repertoire through careful differential reinforcement, though it may be that such care is often the custom in academic families. It is a common observation that a young child of immigrant parents may learn a second language in the streets, from other children, with amazing rapidity, and that his speech may be completely fluent and correct to the last allophone, while the subtleties that become second nature to the child may elude his parents despite high motivation and continued practice. A child may pick up a large part of his vocabulary and 'feel' for sentence structure from television, from reading, from listening to adults, etc. Even a very young child who has not yet acquired a minimal repertoire from which to form new utterances may imitate a word quite well on an early try, with no attempt on the part of his parents to teach it to him. It is also perfectly obvious that, at a later stage, a child will be able to construct and understand utterances which are quite new, and are, at the same time, acceptable sentences in his language. Every time an adult reads a newspaper, he undoubtedly comes upon countless new sentences which are not at all similar, in a simple, physical sense, to any that he has heard before, and which he will recognize as sentences and understand; he will also be able to detect slight distortions or misprints. Talk of 'stimulus generalization' in such a case simply perpetuates the mystery under a new title. These abilities indicate that there must be fundamental processes at work quite independently of 'feedback' from the environment. I have been able to find no support whatsoever for the doctrine of Skinner and others that slow and careful shaping of verbal behavior through differential reinforcement is an absolute necessity. If reinforcement theory really requires the

³⁰ Of course it is perfectly possible to incorporate this fact within the Skinnerian framework. If, for example, a child watches an adult using a comb and then, with no instruction, tries to comb his own hair, we can explain this act by saying that he performs it because he finds it reinforcing to do so, or because of the reinforcement provided by behaving like a person who is 'reinforcing' (cf. 164). Similarly, an automatic explanation is available for any other behavior. It seems strange at first that Skinner pays so little attention to the literature on latent learning and related topics, considering the tremendous reliance that he places on the notion of reinforcement; I have seen no reference to it in his writings. Similarly, Keller and Schoenfeld, in what appears to be the only text written under predominantly Skinnerian influence, *Principles of psychology* (New York, 1950), dismiss the latent-learning literature in one sentence as 'beside the point', serving only 'to obscure, rather than clarify, a fundamental principle' (the law of effect, 41). However, this neglect is perfectly appropriate in Skinner's case. To the drive-reductionist, or anyone else for whom the notion 'reinforcement' has some substantive meaning, these experiments and observations are important (and often embarrassing). But in the Skinnerian sense of the word, neither these results nor any conceivable others can cast any doubt on the claim that reinforcement is essential for the acquisition and maintenance of behavior. Behavior certainly has some concomitant circumstances, and whatever they are, we can call them 'reinforcement'.

assumption that there be such meticulous care, it seems best to regard this simply as a *reductio ad absurdum* argument against this approach. It is also not easy to find any basis (or, for that matter, to attach very much content) to the claim that reinforcing contingencies set up by the verbal community are the single factor responsible for maintaining the strength of verbal behavior. The sources of the 'strength' of this behavior are almost a total mystery at present. Reinforcement undoubtedly plays a significant role, but so do a variety of motivational factors about which nothing serious is known in the case of human beings.

As far as acquisition of language is concerned, it seems clear that reinforcement, casual observation, and natural inquisitiveness (coupled with a strong tendency to imitate) are important factors, as is the remarkable capacity of the child to generalize, hypothesize, and 'process information' in a variety of very special and apparently highly complex ways which we cannot yet describe or begin to understand, and which may be largely innate, or may develop through some sort of learning or through maturation of the nervous system. The manner in which such factors operate and interact in language acquisition is completely unknown. It is clear that what is necessary in such a case is research, not dogmatic and perfectly arbitrary claims, based on analogies to that small part of the experimental literature in which one happens to be interested.

The pointlessness of these claims becomes clear when we consider the well-known difficulties in determining to what extent inborn structure, maturation, and learning are responsible for the particular form of a skilled or complex performance.³¹ To take just one example,³² the gaping response of a nestling thrush is at first released by jarring of the nest, and, at a later stage, by a moving object of specific size, shape, and position relative to the nestling. At this later stage the response is directed towards the part of the stimulus object corresponding to the parent's head, and characterized by a complex configuration of stimuli that can be precisely described. Knowing just this, it would be possible to construct a speculative, learning-theoretic account of how this sequence of behavior patterns might have developed through a process of differential reinforcement, and it would no doubt be possible to train rats to do something similar. However, there appears to be good evidence that these responses to fairly complex 'sign stimuli' are genetically determined and mature without learning. Clearly, the possibility cannot be discounted. Consider now the comparable case of a child imitating new words. At an early stage we may find rather gross correspondences. At a later stage, we find that repetition is of course far from exact (i.e.

³¹ Tinbergen (op.cit., Chapter VI) reviews some aspects of this problem, discussing the primary role of maturation in the development of many complex motor patterns (e.g. flying, swimming) in lower organisms, and the effect of an 'innate disposition to learn' in certain specific ways and at certain specific times. Cf. also Schiller, *Instinctive behavior* 265-88, for a discussion of the role of maturing motor patterns in apparently insightful behavior in the chimpanzee.

Lenneberg (*Language, evolution, and purposive behavior*, unpublished) presents a very interesting discussion of the part that biological structure may play in the acquisition of language, and the dangers in neglecting this possibility.

³² From among many cited by Tinbergen, op.cit. (this on page 85).

it is not mimicry, a fact which itself is interesting), but that it reproduces the highly complex configuration of sound features that constitute the phonological structure of the language in question. Again, we can propose a speculative account of how this result might have been obtained through elaborate arrangement of reinforcing contingencies. Here too, however, it is possible that ability to select out of the complex auditory input those features that are phonologically relevant may develop largely independently of reinforcement, through genetically determined maturation. To the extent that this is true, an account of the development and causation of behavior that fails to consider the structure of the organism will provide no understanding of the real processes involved.

It is often argued that experience, rather than innate capacity to handle information in certain specific ways, must be the factor of overwhelming dominance in determining the specific character of language acquisition, since a child speaks the language of the group in which he lives. But this is a superficial argument. As long as we are speculating, we may consider the possibility that the brain has evolved to the point where, given an input of observed Chinese sentences, it produces (by an 'induction' of apparently fantastic complexity and suddenness) the 'rules' of Chinese grammar, and given an input of observed English sentences, it produces (by, perhaps, exactly the same process of induction) the rules of English grammar; or that given an observed application of a term to certain instances it automatically predicts the extension to a class of complexly related instances. If clearly recognized as such, this speculation is neither unreasonable nor fantastic; nor, for that matter, is it beyond the bounds of possible study. There is of course no known neural structure capable of performing this task in the specific ways that observation of the resulting behavior might lead us to postulate; but for that matter, the structures capable of accounting for even the simplest kinds of learning have similarly defied detection.³³

Summarizing this brief discussion, it seems that there is neither empirical evidence nor any known argument to support any SPECIFIC claim about the relative importance of 'feedback' from the environment and the 'independent contribution of the organism' in the process of language acquisition.

6. We now turn to the system that Skinner develops specifically for the description of verbal behavior. Since this system is based on the notions 'stimulus', 'response', and 'reinforcement', we can conclude from the preceding sections that it will be vague and arbitrary. For reasons noted in §1, however, I think it is important to see in detail how far from the mark any analysis phrased solely in these terms must be and how completely this system fails to account for the facts of verbal behavior.

Consider first the term 'verbal behavior' itself. This is defined as 'behavior

³³ Cf. Lashley, In search of the engram, *Symposium of the Society for Experimental Biology* 4.454-82 (1950). Sperry, On the neural basis of the conditioned response, *British journal of animal behaviour* 3.41-4 (1955), argues that to account for the experimental results of Lashley and others, and for other facts that he cites, it is necessary to assume that high-level cerebral activity of the type of insight, expectancy, etc. is involved even in simple conditioning. He states that 'we still lack today a satisfactory picture of the underlying neural mechanism' of the conditioned response.

reinforced through the mediation of other persons' (2). The definition is clearly much too broad. It would include as 'verbal behavior', for example, a rat pressing the bar in a Skinner-box, a child brushing his teeth, a boxer retreating before an opponent, and a mechanic repairing an automobile. Exactly how much of ordinary linguistic behavior is 'verbal' in this sense, however, is something of a question: perhaps, as I have pointed out above, a fairly small fraction of it, if any substantive meaning is assigned to the term 'reinforced'. This definition is subsequently refined by the additional provision that the mediating response of the reinforcing person (the 'listener') must itself 'have been conditioned *precisely in order to reinforce* the behavior of the speaker' (225, italics his). This still covers the examples given above, if we can assume that the 'reinforcing' behavior of the psychologist, the parent, the opposing boxer, and the paying customer are the result of appropriate training, which is perhaps not unreasonable. A significant part of the fragment of linguistic behavior covered by the earlier definition will no doubt be excluded by the refinement, however. Suppose, for example, that while crossing the street I hear someone shout *Watch out for the car* and jump out of the way. It can hardly be proposed that my jumping (the mediating, reinforcing response in Skinner's usage) was conditioned (that is, I was trained to jump) precisely in order to reinforce the behavior of the speaker. Similarly for a wide class of cases. Skinner's assertion that with this refined definition 'we narrow our subject to what is traditionally recognized as the verbal field' (225) appears to be grossly in error.

7. Verbal operants are classified by Skinner in terms of their 'functional' relation to discriminated stimulus, reinforcement, and other verbal responses. A *mand* is defined as 'a verbal operant in which the response is reinforced by a characteristic consequence and is therefore under the functional control of relevant conditions of deprivation or aversive stimulation' (35). This is meant to include questions, commands, etc. Each of the terms in this definition raises a host of problems. A *mand* such as *Pass the salt* is a class of responses. We cannot tell by observing the form of a response whether it belongs to this class (Skinner is very clear about this), but only by identifying the controlling variables. This is generally impossible. Deprivation is defined in the bar-pressing experiment in terms of length of time that the animal has not been fed or permitted to drink. In the present context, however, it is quite a mysterious notion. No attempt is made here to describe a method for determining 'relevant conditions of deprivation' independently of the 'controlled' response. It is of no help at all to be told (32) that it can be characterized in terms of the operations of the experimenter. If we define deprivation in terms of elapsed time, then at any moment a person is in countless states of deprivation.³⁴ It appears that we must decide that the relevant condition of deprivation was (say) salt-deprivation, on the basis of the fact that the speaker asked for salt (the reinforcing community which 'sets up'

³⁴ Furthermore, the motivation of the speaker does not, except in the simplest cases, correspond in intensity to the duration of deprivation. An obvious counter-example is what Hebb has called the 'salted-nut phenomenon' (*Organization of behavior* 199 [New York, 1949]). The difficulty is of course even more serious when we consider 'deprivations' not related to physiological drives.

the mand is in a similar predicament). In this case, the assertion that a mand is under the control of relevant deprivation is empty, and we are (contrary to Skinner's intention) identifying the response as a mand completely in terms of form. The word 'relevant' in the definition above conceals some rather serious complications.

In the case of the mand *Pass the salt*, the word 'deprivation' is not out of place, though it appears to be of little use for functional analysis. Suppose however that the speaker says *Give me the book*, *Take me for a ride*, or *Let me fix it*. What kinds of deprivation can be associated with these mands? How do we determine or measure the relevant deprivation? I think we must conclude in this case, as before, either that the notion 'deprivation' is relevant at most to a minute fragment of verbal behavior, or else that the statement 'X is under Y-deprivation' is just an odd paraphrase for 'X wants Y', bearing a misleading and unjustifiable connotation of objectivity.

The notion 'aversive control' is just as confused. This is intended to cover threats, beating, and the like (33). The manner in which aversive stimulation functions is simply described. If a speaker has had a history of appropriate reinforcement (e.g. if a certain response was followed by 'cessation of the threat of such injury—of events which have previously been followed by such injury and which are therefore conditioned aversive stimuli') then he will tend to give the proper response when the threat which had previously been followed by the injury is presented. It would appear to follow from this description that a speaker will not respond properly to the mand *Your money or your life* (38) unless he has a past history of being killed. But even if the difficulties in describing the mechanism of aversive control are somehow removed by a more careful analysis, it will be of little use for identifying operants for reasons similar to those mentioned in the case of deprivation.

It seems, then, that in Skinner's terms there is in most cases no way to decide whether a given response is an instance of a particular mand. Hence it is meaningless, within the terms of his system, to speak of the *characteristic* consequences of a mand, as in the definition above. Furthermore, even if we extend the system so that mands can somehow be identified, we will have to face the obvious fact that most of us are not fortunate enough to have our requests, commands, advice, and so on characteristically reinforced (they may nevertheless exist in considerable 'strength'). These responses could therefore not be considered mands by Skinner. In fact, Skinner sets up a category of 'magical mands' (48–9) to cover the case of 'mands which cannot be accounted for by showing that they have ever had the effect specified or any similar effect upon similar occasions' (the word 'ever' in this statement should be replaced by 'characteristically'). In these pseudo mands, 'the speaker simply describes the reinforcement appropriate to a given state of deprivation or aversive stimulation'. In other words, given the meaning that we have been led to assign to 'reinforcement' and 'deprivation', the speaker asks for what he wants. The remark that 'a speaker appears to create new mands on the analogy of old ones' is also not very helpful.

Skinner's claim that his new descriptive system is superior to the traditional one 'because its terms can be defined with respect to experimental operations'

(45) is, we see once again, an illusion. The statement 'X wants Y' is not clarified by pointing out a relation between rate of bar-pressing and hours of food-deprivation; replacing 'X wants Y' by 'X is deprived of Y' adds no new objectivity to the description of behavior. His further claim for the superiority of the new analysis of mands is that it provides an objective basis for the traditional classification into requests, commands, etc. (38–41). The traditional classification is in terms of the intention of the speaker. But intention, Skinner holds, can be reduced to contingencies of reinforcement, and, correspondingly, we can explain the traditional classification in terms of the reinforcing behavior of the listener. Thus a question is a mand which 'specifies verbal action, and the behavior of the listener permits us to classify it as a request, a command, or a prayer' (39). It is a request if 'the listener is independently motivated to reinforce the speaker'; a command if 'the listener's behavior is ... reinforced by reducing a threat'; a prayer if the mand 'promotes reinforcement by generating an emotional disposition'. The mand is advice if the listener is positively reinforced by the consequences of mediating the reinforcement of the speaker; it is a warning if 'by carrying out the behavior specified by the speaker the listener escapes from aversive stimulation'; and so on. All this is obviously wrong if Skinner is using the words 'request', 'command', etc., in anything like the sense of the corresponding English words. The word 'question' does not cover commands. *Please pass the salt* is a request (but not a question), whether or not the listener happens to be motivated to fulfill it; not everyone to whom a request is addressed is favorably disposed. A response does not cease to be a command if it is not followed; nor does a question become a command if the speaker answers it because of an implied or imagined threat. Not all advice is good advice, and a response does not cease to be advice if it is not followed. Similarly, a warning may be misguided; heeding it may cause aversive stimulation, and ignoring it might be positively reinforcing. In short, the entire classification is beside the point. A moment's thought is sufficient to demonstrate the impossibility of distinguishing between requests, commands, advice, etc., on the basis of the behavior or disposition of the particular listener. Nor can we do this on the basis of the typical behavior of all listeners. Some advice is never taken, is always bad, etc., and similarly with other kinds of mands. Skinner's evident satisfaction with this analysis of the traditional classification is extremely puzzling.

8. Mands are operants with no specified relation to a prior stimulus. A *tact*, on the other hand, is defined as 'a verbal operant in which a response of given form is evoked (or at least strengthened) by a particular object or event or property of an object or event' (81). The examples quoted in the discussion of stimulus control (§3) are all tacts. The obscurity of the notion 'stimulus control' makes the concept of the tact rather mystical. Since, however, the tact is 'the most important of verbal operants', it is important to investigate the development of this concept in more detail.

We first ask why the verbal community 'sets up' tacts in the child—that is, how the parent is reinforced by setting up the tact. The basic explanation for this behavior of the parent (85–6) is the reinforcement he obtains by the fact that his contact with the environment is extended; to use Skinner's example, the

child may later be able to call him to the telephone. (It is difficult to see, then, how first children acquire tacts, since the parent does not have the appropriate history of reinforcement). Reasoning in the same way, we may conclude that the parent induces the child to walk so that he can make some money delivering newspapers. Similarly, the parent sets up an 'echoic repertoire' (e.g. a phonemic system) in the child because this makes it easier to teach him new vocabulary, and extending the child's vocabulary is ultimately useful to the parent. 'In all these cases we explain the behavior of the reinforcing listener by pointing to an improvement in the possibility of controlling the speaker whom he reinforces' (56). Perhaps this provides the explanation for the behavior of the parent in inducing the child to walk: the parent is reinforced by the improvement in his control of the child when the child's mobility increases. Underlying these modes of explanation is a curious view that it is somehow more scientific to attribute to a parent a desire to control the child or enhance his own possibilities for action than a desire to see the child develop and extend his capacities. Needless to say, no evidence is offered to support this contention.

Consider now the problem of explaining the response of the listener to a tact. Suppose, for example, that B hears A say *fox* and reacts appropriately, looks around, runs away, aims his rifle, etc. How can we explain B's behavior? Skinner rightly rejects analyses of this offered by Watson and Bertrand Russell. His own equally inadequate analysis proceeds as follows (87-8). We assume (1) 'that in the history of [B] the stimulus *fox* has been an occasion upon which looking around has been followed by seeing a fox' and (2) 'that the listener has some current "interest in seeing foxes"—that behavior which depends upon a seen fox for its execution is strong, and that the stimulus supplied by a fox is therefore reinforcing'. B carries out the appropriate behavior, then, because 'the heard stimulus *fox* is the occasion upon which turning and looking about is frequently followed by the reinforcement of seeing a fox'; i.e. his behavior is a discriminated operant. This explanation is unconvincing. B may never have seen a fox and may have no current interest in seeing one, and yet may react appropriately to the stimulus *fox*.³⁵ Since exactly the same behavior may take place when neither of the assumptions is fulfilled, some other mechanism must be operative here.

Skinner remarks several times that his analysis of the tact in terms of stimulus control is an improvement over the traditional formulations in terms of reference and meaning. This is simply not true. His analysis is fundamentally the same as the traditional one, though much less carefully phrased. In particular, it differs only by indiscriminate paraphrase of such notions as denotation (reference) and connotation (meaning), which have been kept clearly apart in traditional formulations, in terms of the vague concept 'stimulus control'. In one traditional formulation a descriptive term is said to denote a set of entities and to connote or designate a certain property or condition that an entity must possess

³⁵ Just as he may have the appropriate reaction, both emotional and behavioral, to such utterances as *The volcano is erupting* or *There's a homicidal maniac in the next room* without any previous pairing of the verbal and the physical stimulus. Skinner's discussion of Pavlovian conditioning in language (154) is similarly unconvincing.

or fulfil if the term is to apply to it.³⁶ Thus the term *vertebrate* refers to (denotes, is true of) vertebrates and connotes the property 'having a spine' or something of the sort. This connoted defining property is called the meaning of the term. Two terms may have the same reference but different meanings. Thus it is apparently true that the creatures with hearts are all and only the vertebrates. If so, then the term *creature with a heart* refers to vertebrates and designates the property 'having a heart'. This is presumably a different property (a different general condition) from having a spine; hence the terms *vertebrate* and *creature with a heart* are said to have different meanings. This analysis is not incorrect (for at least one sense of meaning), but its many limitations have frequently been pointed out.³⁷ The major problem is that there is no good way to decide whether two descriptive terms designate the same property.³⁸ As we have just seen, it is not sufficient that they refer to the same objects. *Vertebrate* and *creature with a spine* would be said to designate the same property (distinct from that designated by *creature with a heart*). If we ask why this is so, the only answer appears to be that the terms are synonymous. The notion 'property' thus seems somehow

³⁶ Mill, *A system of logic* (1843). Carnap gives a recent reformulation in Meaning and synonymy in natural languages, *Phil. studies* 6.33–47 (1955), defining the meaning (intension) of a predicate 'Q' for a speaker X as 'the general condition which an object y must fulfill in order for X to be willing to ascribe the predicate "Q" to y'. The connotation of an expression is often said to constitute its 'cognitive meaning' as opposed to its 'emotive meaning', which is, essentially, the emotional reaction to the expression.

Whether or not this is the best way to approach meaning, it is clear that denotation, cognitive meaning, and emotive meaning are quite different things. The differences are often obscured in empirical studies of meaning, with much consequent confusion. Thus Osgood has set himself the task of accounting for the fact that a stimulus comes to be a sign for another stimulus (a buzzer becomes a sign for food, a word for a thing, etc.). This is clearly (for linguistic signs) a problem of denotation. The method that he actually develops for quantifying and measuring meaning (cf. Osgood, Suci, Tannenbaum, *The measurement of meaning* [Urbana, 1957]) applies, however, only to emotive meaning. Suppose, for example, that A hates both Hitler and science intensely, and considers both highly potent and 'active', while B, agreeing with A about Hitler, likes science very much, although he considers it rather ineffective and not too important. Then A may assign to 'Hitler' and 'science' the same position on the semantic differential, while B will assign 'Hitler' the same position as A did, but 'science' a totally different position. Yet A does not think that 'Hitler' and 'science' are synonymous or that they have the same reference, and A and B may agree precisely on the cognitive meaning of 'science'. Clearly it is the attitude toward the things (the emotive meaning of the words) that is being measured here. There is a gradual shift in Osgood's account from denotation to cognitive meaning to emotive meaning. The confusion is caused, no doubt, by the fact that the term 'meaning' is used in all three senses (and others). [See Carroll's review of the book by Osgood, Suci, and Tannenbaum in this number of *LANGUAGE*.]

³⁷ Most clearly by Quine. See *From a logical point of view* (Cambridge, 1953), especially Chapters 2, 3, and 7.

³⁸ A method for characterizing synonymy in terms of reference is suggested by Goodman, On likeness of meaning, *Analysis* 10.1–7 (1949). Difficulties are discussed by Goodman, On some differences about meaning, *ibid.* 13.90–6 (1953). Carnap (op.cit.) presents a very similar idea (§6), but somewhat misleadingly phrased, since he does not bring out the fact that only extensional (referential) notions are being used.

language-bound, and appeal to 'defining properties' sheds little light on questions of meaning and synonymy.

Skinner accepts the traditional account in toto, as can be seen from his definition of a tact as a response under control of a property (stimulus) of some physical object or event. We have found that the notion 'control' has no real substance, and is perhaps best understood as a paraphrase of 'denote' or 'connote' or, ambiguously, both. The only consequence of adopting the new term 'stimulus control' is that the important differences between reference and meaning are obscured. It provides no new objectivity. The stimulus controlling the response is determined by the response itself; there is no independent and objective method of identification (see §3 above). Consequently, when Skinner defines 'synonymy' as the case in which 'the same stimulus leads to quite different responses' (118), we can have no objection. The responses *chair* and *red* made alternatively to the same object are not synonymous, because the stimuli are called different. The responses *vertebrate* and *creature with a spine* would be considered synonymous because they are controlled by the same property of the object under investigation; in more traditional and no less scientific terms, they evoke the same concept. Similarly, when metaphorical extension is explained as due to 'the control exercised by properties of the stimulus which, though present at reinforcement, do not enter into the contingency respected by the verbal community' (92; traditionally, accidental properties), no objection can be raised which has not already been levelled against the traditional account. Just as we could 'explain' the response *Mozart* to a piece of music in terms of subtle properties of the controlling stimuli, we can, with equal facility, explain the appearance of the response *sun* when no sun is present, as in *Juliet is [like] the sun*. 'We do so by noting that Juliet and the sun have common properties, at least in their effect on the speaker' (93). Since any two objects have indefinitely many properties in common, we can be certain that we will never be at a loss to explain a response of the form *A is like B*, for arbitrary A and B. It is clear, however, that Skinner's recurrent claim that his formulation is simpler and more scientific than the traditional account has no basis in fact.

Tacts under the control of private stimuli (Bloomfield's 'displaced speech') form a large and important class (130–46), including not only such responses as *familiar* and *beautiful*, but also verbal responses referring to past, potential, or future events or behavior. For example, the response *There was an elephant at the zoo* 'must be understood as a response to current stimuli, including events within the speaker himself' (143).³⁹ If we now ask ourselves what proportion of

³⁹ In general, the examples discussed here are badly handled, and the success of the proposed analyses is overstated. In each case, it is easy to see that the proposed analysis, which usually has an air of objectivity, is not equivalent to the analyzed expression. To take just one example, the response *I am looking for my glasses* is certainly not equivalent to the proposed paraphrases: 'When I have behaved in this way in the past, I have found my glasses and have then stopped behaving in this way', or 'Circumstances have arisen in which I am inclined to emit any behavior which in the past has led to the discovery of my glasses; such behavior includes the behavior of looking in which I am now engaged.' One may look for one's glasses for the first time; or one may emit the same behavior in

the tacts in actual life are responses to (descriptions of) actual current outside stimulation, we can see just how large a role must be attributed to private stimuli. A minute amount of verbal behavior, outside the nursery, consists of such remarks as *This is red* and *There is a man*. The fact that 'functional analysis' must make such a heavy appeal to obscure internal stimuli is again a measure of its actual advance over traditional formulations.

9. Responses under the control of prior verbal stimuli are considered under a different heading from the tact. An *echoic operant* is a response which 'generates a sound pattern similar to that of the stimulus' (55). It covers only cases of immediate imitation.⁴⁰ No attempt is made to define the sense in which a child's echoic response is 'similar' to the stimulus spoken in the father's bass voice; it seems, though there are no clear statements about this, that Skinner would not accept the account of the phonologist in this respect, but nothing else is offered. The development of an echoic repertoire is attributed completely to differential reinforcement. Since the speaker will do no more, according to Skinner, than what is demanded of him by the verbal community, the degree of accuracy insisted on by this community will determine the elements of the repertoire, whatever these may be (not necessarily phonemes). 'In a verbal community which does not insist on a precise correspondence, an echoic repertoire may remain slack and will be less successfully applied to novel patterns'. There is no discussion of such familiar phenomena as the accuracy with which a child will pick up a second language or a local dialect in the course of playing with other children, which seem sharply in conflict with these assertions. No anthropological evidence is cited to support the claim that an effective phonemic system does not develop (this is the substance of the quoted remark) in communities that do not insist on precise correspondence.

A verbal response to a written stimulus (reading) is called 'textual behavior'.

looking for one's glasses as in looking for one's watch, in which case *I am looking for my glasses* and *I am looking for my watch* are equivalent, under the Skinnerian paraphrase. The difficult questions of purposiveness cannot be handled in this superficial manner.

⁴⁰ Skinner takes great pains, however, to deny the existence in human beings (or parrots) of any innate faculty or tendency to imitate. His only argument is that no one would suggest an innate tendency to read, yet reading and echoic behavior have similar 'dynamic properties'. This similarity, however, simply indicates the grossness of his descriptive categories.

In the case of parrots, Skinner claims that they have no instinctive capacity to imitate, but only to be reinforced by successful imitation (59). Given Skinner's use of the word 'reinforcement', it is difficult to perceive any distinction here, since exactly the same thing could be said of any other instinctive behavior. For example, where another scientist would say that a certain bird instinctively builds a nest in a certain way, we could say in Skinner's terminology (equivalently) that the bird is instinctively reinforced by building the nest in this way. One is therefore inclined to dismiss this claim as another ritual introduction of the word 'reinforce'. Though there may, under some suitable clarification, be some truth in it, it is difficult to see how many of the cases reported by competent observers can be handled if 'reinforcement' is given some substantive meaning. Cf. Thorpe, op.cit. 353 f.; Lorenz, *King Solomon's ring* 85-8 (New York, 1952); even Mowrer, who tries to show how imitation might develop through secondary reinforcement, cites a case, op.cit. 694, which he apparently believes, but where this could hardly be true. In young children, it seems most implausible to explain imitation in terms of secondary reinforcement.

Other verbal responses to verbal stimuli are called 'intraverbal operants'. Paradigm instances are the response *four* to the stimulus *two plus two* or the response *Paris* to the stimulus *capital of France*. Simple conditioning may be sufficient to account for the response *four* to *two plus two*,⁴¹ but the notion of intraverbal response loses all meaning when we find it extended to cover most of the facts of history and many of the facts of science (72, 129); all word association and 'flight of ideas' (73-6); all translations and paraphrase (77); reports of things seen, heard, or remembered (315); and, in general, large segments of scientific, mathematical, and literary discourse. Obviously the kind of explanation that might be proposed for a student's ability to respond with *Paris* to *capital of France*, after suitable practice, can hardly be seriously offered to account for his ability to make a judicious guess in answering the questions (to him new) *What is the seat of the French government?*, ... *the source of the literary dialect?*, ... *the chief target of the German blitzkrieg?*, etc., or his ability to prove a new theorem, translate a new passage, or paraphrase a remark for the first time or in a new way.

The process of 'getting someone to see a point', to see something your way, or to understand a complex state of affairs (e.g. a difficult political situation or a mathematical proof) is, for Skinner, simply a matter of increasing the strength of the listener's already available behavior.⁴² Since 'the process is often exemplified by relatively intellectual scientific or philosophical discourse', Skinner considers it 'all the more surprising that it may be reduced to echoic, textual, or intraverbal supplementation' (269). Again, it is only the vagueness and latitude with which the notions 'strength' and 'intraverbal response' are used that save this from absurdity. If we use these terms in their literal sense, it is clear that understanding a statement cannot be equated to shouting it frequently in a high-pitched voice (high response strength), and a clever and convincing argument cannot be accounted for on the basis of a history of pairings of verbal responses.⁴³

⁴¹ Though even this possibility is limited. If we were to take these paradigm instances seriously, it should follow that a child who knows how to count from one to 100 could learn an arbitrary 10×10 matrix with these numbers as entries as readily as the multiplication table.

⁴² Similarly, 'the universality of a literary work refers to the number of potential readers inclined to say the same thing' (275; i.e. the most 'universal' work is a dictionary of clichés and greetings); a speaker is 'stimulating' if he says what we are about to say ourselves (272); etc.

⁴³ Similarly, consider Skinner's contention (362-5) that communication of knowledge or facts is just the process of making a new response available to the speaker. Here the analogy to animal experiments is particularly weak. When we train a rat to carry out some peculiar act, it makes sense to consider this a matter of adding a response to his repertoire. In the case of human communication, however, it is very difficult to attach any meaning to this terminology. If A imparts to B the information (new to B) that the railroads face collapse, in what sense can the response *The railroads face collapse* be said to be now, but not previously, available to B? Surely B could have said it before (not knowing whether it was true), and known that it was a sentence (as opposed to *Collapse face railroads the*). Nor is there any reason to assume that the response has increased in strength, whatever this means exactly (e.g. B may have no interest in the fact, or he may want it suppressed). It is not clear how we can characterize this notion of 'making a response available' without reducing Skinner's account of 'imparting knowledge' to a triviality.

10. A final class of operants, called *autoclitics*, includes those that are involved in assertion, negation, quantification, qualification of responses, construction of sentences, and the 'highly complex manipulations of verbal thinking'. All these acts are to be explained 'in terms of behavior which is evoked by or acts upon other behavior of the speaker' (313). Autoclitics are, then, responses to already given responses, or rather, as we find in reading through this section, they are responses to covert or incipient or potential verbal behavior. Among the auto-clitics are listed such expressions as *I recall*, *I imagine*, *for example*, *assume*, *let X equal ...*, the terms of negation, the *is* of predication and assertion, *all*, *some*, *if*, *then*, and, in general, all morphemes other than nouns, verbs, and adjectives, as well as grammatical processes of ordering and arrangement. Hardly a remark in this section can be accepted without serious qualification. To take just one example, consider Skinner's account of the autoclitic *all* in *All swans are white* (329). Obviously we cannot assume that this is a tact to all swans as stimulus. It is suggested, therefore, that we take *all* to be an autoclitic modifying the whole sentence *Swans are white*. *All* can then be taken as equivalent to *always*, or *always it is possible to say*. Notice, however, that the modified sentence *Swans are white* is just as general as *All swans are white*. Furthermore, the proposed translation of *all* is incorrect if taken literally. It is just as possible to say *Swans are green* as to say *Swans are white*. It is not always possible to say either (e.g. while you are saying something else or sleeping). Probably what Skinner means is that the sentence can be paraphrased '*X is white* is true, for each swan *X*'. But this paraphrase cannot be given within his system, which has no place for *true*.

Skinner's account of grammar and syntax as autoclitic processes (Chapter 13) differs from a familiar traditional account mainly in the use of the pseudoscientific terms 'control' or 'evoke' in place of the traditional 'refer'. Thus in *The boy runs*, the final *s* of *runs* is a tact under control of such 'subtle properties of a situation' as 'the nature of running as an *activity* rather than an object or property of an object'.⁴⁴ (Presumably, then, in *The attempt fails*, *The difficulty remains*, *His anxiety increases*, etc., we must also say that the *s* indicates that the object described as the attempt is carrying out the activity of failing, etc.) In *the boy's gun*, however, the *s* denotes possession (as, presumably, in *the boy's arrival*, ... *story*, ... *age*, etc.) and is under the control of this 'relational aspect of the situation' (336). The 'relational autoclitic of order' (whatever it may mean to call the order of a set of responses a response to them) in *The boy runs the store* is under the control of an 'extremely complex stimulus situation', namely, that the boy is running the store (335). *And in the hat and the shoe* is under the control of the property 'pair'. *Through in the dog went through the hedge* is under the control of the 'relation between the going dog and the hedge' (342). In general, nouns are evoked by objects, verbs by actions, and so on.

Skinner considers a sentence to be a set of key responses (nouns, verbs, adjectives) on a skeletal frame (346). If we are concerned with the fact that Sam

⁴⁴ 332. On the next page, however, the *s* in the same example indicates that 'the object described as *the boy* possesses the property of running.' The difficulty of even maintaining consistency with a conceptual scheme like this is easy to appreciate.

rented a leaky boat, the raw responses to the situation are *rent*, *boat*, *leak*, and *Sam*. Autoclitics (including order) which qualify these responses, express relations between them, and the like, are then added by a process called 'composition' and the result is a grammatical sentence, one of many alternatives among which selection is rather arbitrary. The idea that sentences consist of lexical items placed in a grammatical frame is of course a traditional one, within both philosophy and linguistics. Skinner adds to it only the very implausible speculation that in the internal process of composition, the nouns, verbs, and adjectives are chosen first and then are arranged, qualified, etc., by autoclitic responses to these internal activities.⁴⁵

This view of sentence structure, whether phrased in terms of autoclitics, syncategorematic expressions, or grammatical and lexical morphemes, is inadequate. *Sheep provide wool* has no (physical) frame at all, but no other arrangement of these words is an English sentence. The sequences *furiously sleep ideas green colorless* and *friendly young dogs seem harmless* have the same frames, but only one is a sentence of English (similarly, only one of the sequences formed by reading these from back to front). *Struggling artists can be a nuisance* has the same frame as *marking papers can be a nuisance*, but is quite different in sentence structure, as can be seen by replacing *can be* by *is* or *are* in both cases. There are many other similar and equally simple examples. It is evident that more is involved in sentence structure than insertion of lexical items in grammatical frames; no approach to language that fails to take these deeper processes into account can possibly achieve much success in accounting for actual linguistic behavior.

11. The preceding discussion covers all the major notions that Skinner introduces in his descriptive system. My purpose in discussing the concepts one by one was to show that in each case, if we take his terms in their literal meaning, the description covers almost no aspect of verbal behavior, and if we take them metaphorically, the description offers no improvement over various traditional formulations. The terms borrowed from experimental psychology simply lose their objective meaning with this extension, and take over the full vagueness of ordinary language. Since Skinner limits himself to such a small set of terms for paraphrase, many important distinctions are obscured. I think that this analysis supports the view expressed in §1 above, that elimination of the independent contribution of the speaker and learner (a result which Skinner considers of great importance, cf. 311-2) can be achieved only at the cost of eliminating all significance from the descriptive system, which then operates at a level so gross and crude that no answers are suggested to the most elementary questions.⁴⁶

⁴⁵ One might just as well argue that exactly the opposite is true. The study of hesitation pauses has shown that these tend to occur before the large categories—noun, verb, adjective; this finding is usually described by the statement that the pauses occur where there is maximum uncertainty or information. Insofar as hesitation indicates on-going composition (if it does at all), it would appear that the 'key responses' are chosen only after the 'grammatical frame'. Cf. C. E. Osgood, unpublished paper; Goldman-Eisler, Speech analysis and mental processes, *Language and speech* 1.67 (1958).

⁴⁶ E.g. what are in fact the actual units of verbal behavior? Under what conditions will a physical event capture the attention (be a stimulus) or be a reinforcer? How do we decide

The questions to which Skinner has addressed his speculations are hopelessly premature. It is futile to inquire into the causation of verbal behavior until much more is known about the specific character of this behavior; and there is little point in speculating about the process of acquisition without much better understanding of what is acquired.

Anyone who seriously approaches the study of linguistic behavior, whether linguist, psychologist, or philosopher, must quickly become aware of the enormous difficulty of stating a problem which will define the area of his investigations, and which will not be either completely trivial or hopelessly beyond the range of present-day understanding and technique. In selecting functional analysis as his problem, Skinner has set himself a task of the latter type. In an extremely interesting and insightful paper,⁴⁷ K. S. Lashley has implicitly delimited a class of problems which can be approached in a fruitful way by the linguist and psychologist, and which are clearly preliminary to those with which Skinner is concerned. Lashley recognizes, as anyone must who seriously considers the data, that the composition and production of an utterance is not simply a matter of stringing together a sequence of responses under the control of outside stimulation and intraverbal association, and that the syntactic organization of an utterance is not something directly represented in any simple way in the physical structure of the utterance itself. A variety of observations lead him to conclude that syntactic structure is 'a generalized pattern imposed on the specific acts as they occur', and that 'a consideration of the structure of the sentence and other motor sequences will show ... that there are, behind the overtly expressed sequences, a multiplicity of integrative processes which can only be inferred from the final results of their activity'. He also comments on the great difficulty of determining the 'selective mechanisms' used in the actual construction of a particular utterance.

Although present-day linguistics cannot provide a precise account of these integrative processes, imposed patterns, and selective mechanisms, it can at least set itself the problem of characterizing these completely. It is reasonable to regard the grammar of a language *L* ideally as a mechanism that provides

what stimuli are in 'control' in a specific case? When are stimuli 'similar'? And so on. (It is not interesting to be told e.g. that we say *Stop* to an automobile or billiard ball because they are sufficiently similar to reinforcing people [46].)

The use of unanalyzed notions like 'similar' and 'generalization' is particularly disturbing, since it indicates an apparent lack of interest in every significant aspect of the learning or the use of language in new situations. No one has ever doubted that in some sense, language is learned by generalization, or that novel utterances and situations are in some way similar to familiar ones. The only matter of serious interest is the specific 'similarity'. Skinner has, apparently, no interest in this. Keller and Schoenfeld (*op.cit.*) proceed to incorporate these notions (which they identify) into their Skinnerian 'modern objective psychology' by defining two stimuli to be similar when 'we make the same sort of response to them' (124; but when are responses of the 'same sort'?). They do not seem to notice that this definition converts their 'principle of generalization' (116), under any reasonable interpretation of this, into a tautology. It is obvious that such a definition will not be of much help in the study of language learning or construction of new responses in appropriate situations.

⁴⁷ The problem of serial order in behavior, in Jeffress (ed.), *Hixon symposium on cerebral mechanisms in behavior* (New York, 1951).

an enumeration of the sentences of L in something like the way in which a deductive theory gives an enumeration of a set of theorems. ('Grammar', in this sense of the word, includes phonology.) Furthermore, the theory of language can be regarded as a study of the formal properties of such grammars, and, with a precise enough formulation, this general theory can provide a uniform method for determining, from the process of generation of a given sentence, a structural description which can give a good deal of insight into how this sentence is used and understood. In short, it should be possible to derive from a properly formulated grammar a statement of the integrative processes and generalized patterns imposed on the specific acts that constitute an utterance. The rules of a grammar of the appropriate form can be subdivided into the two types, optional and obligatory; only the latter must be applied in generating an utterance. The optional rules of the grammar can be viewed, then, as the selective mechanisms involved in the production of a particular utterance. The problem of specifying these integrative processes and selective mechanisms is nontrivial and not beyond the range of possible investigation. The results of such a study might, as Lashley suggests, be of independent interest for psychology and neurology (and conversely). Although such a study, even if successful, would by no means answer the major problems involved in the investigation of meaning and the causation of behavior, it surely will not be unrelated to these. It is at least possible, furthermore, that such notions as 'semantic generalization', to which such heavy appeal is made in all approaches to language in use, conceal complexities and specific structure of inference not far different from those that can be studied and exhibited in the case of syntax, and that consequently the general character of the results of syntactic investigations may be a corrective to oversimplified approaches to the theory of meaning.

The behavior of the speaker, listener, and learner of language constitutes, of course, the actual data for any study of language. The construction of a grammar which enumerates sentences in such a way that a meaningful structural description can be determined for each sentence does not in itself provide an account of this actual behavior. It merely characterizes abstractly the ability of one who has mastered the language to distinguish sentences from nonsentences, to understand new sentences (in part), to note certain ambiguities, etc. These are very remarkable abilities. We constantly read and hear new sequences of words, recognize them as sentences, and understand them. It is easy to show that the new events that we accept and understand as sentences are not related to those with which we are familiar by any simple notion of formal (or semantic or statistical) similarity or identity of grammatical frame. Talk of generalization in this case is entirely pointless and empty. It appears that we recognize a new item as a sentence not because it matches some familiar item in any simple way, but because it is generated by the grammar that each individual has somehow and in some form internalized. And we understand a new sentence, in part, because we are somehow capable of determining the process by which this sentence is derived in this grammar.

Suppose that we manage to construct grammars having the properties outlined above. We can then attempt to describe and study the achievement of the speaker, listener, and learner. The speaker and the listener, we must assume,

have already acquired the capacities characterized abstractly by the grammar. The speaker's task is to select a particular compatible set of optional rules. If we know, from grammatical study, what choices are available to him and what conditions of compatibility the choices must meet, we can proceed meaningfully to investigate the factors that lead him to make one or another choice. The listener (or reader) must determine, from an exhibited utterance, what optional rules were chosen in the construction of the utterance. It must be admitted that the ability of a human being to do this far surpasses our present understanding. The child who learns a language has in some sense constructed the grammar for himself on the basis of his observation of sentences and nonsentences (i.e. corrections by the verbal community). Study of the actual observed ability of a speaker to distinguish sentences from nonsentences, detect ambiguities, etc., apparently forces us to the conclusion that this grammar is of an extremely complex and abstract character, and that the young child has succeeded in carrying out what from the formal point of view, at least, seems to be a remarkable type of theory construction. Furthermore, this task is accomplished in an astonishingly short time, to a large extent independently of intelligence, and in a comparable way by all children. Any theory of learning must cope with these facts.

It is not easy to accept the view that a child is capable of constructing an extremely complex mechanism for generating a set of sentences, some of which he has heard, or that an adult can instantaneously determine whether (and if so, how) a particular item is generated by this mechanism, which has many of the properties of an abstract deductive theory. Yet this appears to be a fair description of the performance of the speaker, listener, and learner. If this is correct, we can predict that a direct attempt to account for the actual behavior of speaker, listener, and learner, not based on a prior understanding of the structure of grammars, will achieve very limited success. The grammar must be regarded as a component in the behavior of the speaker and listener which can only be inferred, as Lashley has put it, from the resulting physical acts. The fact that all normal children acquire essentially comparable grammars of great complexity with remarkable rapidity suggests that human beings are somehow specially designed to do this, with data-handling or 'hypothesis-formulating' ability of unknown character and complexity.⁴⁸ The study of linguistic structure

⁴⁸ There is nothing essentially mysterious about this. Complex innate behavior patterns and innate 'tendencies to learn in specific ways' have been carefully studied in lower organisms. Many psychologists have been inclined to believe that such biological structure will not have an important effect on acquisition of complex behavior in higher organisms, but I have not been able to find any serious justification for this attitude. Some recent studies have stressed the necessity for carefully analyzing the strategies available to the organism, regarded as a complex 'information-processing system' (cf. Bruner, Goodnow, and Austin, *A study of thinking* [New York, 1956]; Newell, Shaw, and Simon, *Elements of a theory of human problem solving*, *Psych. rev.* 65.151-66 [1958]), if anything significant is to be said about the character of human learning. These may be largely innate, or developed by early learning processes about which very little is yet known. (But see Harlow, *The formation of learning sets*, *Psych. rev.* 56.51-65 (1949), and many later papers, where striking shifts in the character of learning are shown as a result of early training; also Hebb, *Organization of behavior* 109 ff.) They are undoubtedly quite complex. Cf. Lenneberg, op.cit., and Lees, review of Chomsky's *Syntactic structures* in *Lg.* 33.406 f. (1957), for discussion of the topics mentioned in this section.

may ultimately lead to some significant insights into this matter. At the moment the question cannot be seriously posed, but in principle it may be possible to study the problem of determining what the built-in structure of an information-processing (hypothesis-forming) system must be to enable it to arrive at the grammar of a language from the available data in the available time. At any rate, just as the attempt to eliminate the contribution of the speaker leads to a 'mentalistic' descriptive system that succeeds only in blurring important traditional distinctions, a refusal to study the contribution of the child to language learning permits only a superficial account of language acquisition, with a vast and unanalyzed contribution attributed to a step called 'generalization' which in fact includes just about everything of interest in this process. If the study of language is limited in these ways, it seems inevitable that major aspects of verbal behavior will remain a mystery.

The measurement of meaning. By CHARLES E. OSGOOD, GEORGE J. SUCI, and PERCY H. TANNENBAUM. Pp. [vii], 342. Urbana: University of Illinois Press, 1957.

Reviewed by JOHN B. CARROLL, *Harvard University*

The title of this book provides scant indication of the wide-angle view which the authors have given of a variety of subjects in psycholinguistics and the study of communication processes in both their theoretical and their practical aspects. One can find a little of everything, from pure psychological theory (in the tradition of Clark L. Hull), personality theory, and attitude research, to journalism and advertising. All this is by way of presenting the rationale and the uses of the measuring technique which Osgood has called the *semantic differential* (hereafter SD). Linguists will be most concerned to learn how the authors have dealt with what they call *meaning* and how the SD can aid in the development of the branch of linguistics which is covered by the widely used and misused term *semantics*.

Both in the introduction and towards the close of the book (318) the reader is warned that it represents largely a 'progress report'; he is asked therefore to discount the 'tone of assurance not actually felt'. Certainly he cannot but admire the energy and imagination with which the studies described in this volume have been pursued; he will take note of the fact that psychologists here, there, and everywhere have been quick to adopt the SD as a tool of broad usefulness.¹ But he will ponder. Indeed, the authors predict (320) that he will raise questions—about whether the SD is really a measure of 'meaning', about whether there are really only three main dimensions of the 'semantic space', and about how much the results of SD research can contribute to our understanding of the nature of meaning.

¹ For example, see Carolyn K. Staats and Arthur W. Staats, Meaning established by classical conditioning, *J. exper. psychol.* 54.74-80 (1957); W. E. Lambert, J. Havelka, and C. Crosby, The influence of language-acquisition contexts on bilingualism, *J. abn. soc. psychol.* 56.239-44 (1958).

F APA "Ethical Standards of Psychologists" 1968

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ETHICAL STANDARDS OF PSYCHOLOGISTS¹

The psychologist believes in the dignity and worth of the individual human being. He is committed to increasing man's understanding of himself and others. While pursuing this endeavor, he protects the welfare of any person who may seek his service or of any subject, human or animal, that may be the object of his study. He does not use his professional position or relationships, nor does he knowingly permit his own service to be used by others, for purposes inconsistent with these values. While demanding for himself freedom of inquiry and communication, he accepts the responsibility this freedom confers: for competence where he claims it, for objectivity in the report of his findings, and for consideration of the best interests of his colleagues and of society.

SPECIFIC PRINCIPLES

Principle 1. Responsibility. The psychologist,² committed to increasing man's understanding of man, places high value on objectivity and integrity, and maintains the highest standards in the services he offers.

- a. As a scientist, the psychologist believes that society will be best served when he investigates where his judgment indicates investigation is needed; he plans his research in a such a way to minimize the possibility that his findings will be misleading; and he publishes full reports of his work, never discarding without explanation data which may modify the interpretation of results.
- b. As a teacher, the psychologist recognizes his primary obligation to help others acquire knowledge and skill, and to maintain high standards of scholarship.
- c. As a practitioner, the psychologist knows that he bears a heavy social responsibility because his work may touch intimately the lives of others.

Principle 2. Competence. The maintenance of high standards of professional competence is a responsibility shared by all psychologists, in the interest of the public and of the profession as a whole.

- a. Psychologists discourage the practice of psychology by unqualified persons and assist the public in identifying psychologists competent to give dependable professional service. When a psychologist or a person identifying himself as a psychologist violates ethical standards, psychologists who know firsthand of such activities attempt to rectify the situation. When

¹Reprinted from *Casebook on Ethical Standards of Psychologists*. Washington, D. C.: American Psychological Association, 1967.

²A student of psychology who assumes the role of psychologist shall be considered a psychologist for the purpose of this code of ethics.

such a situation cannot be dealt with informally, it is called to the attention of the appropriate local, state, or national committee on professional ethics, standards, and practices.

- b. The psychologist recognizes the boundaries of his competence and the limitations of his techniques and does not offer services or use techniques that fail to meet professional standards established in particular fields. The psychologist who engages in practice assists his client in obtaining professional help for all important aspects of his problem that fall outside the boundaries of his own competence. This principle requires, for example, that provision be made for the diagnosis and treatment of relevant medical problems and for referral to or consultation with other specialists.
- c. The psychologist in clinical work recognizes that his effectiveness depends in good part upon his ability to maintain sound interpersonal relations, that temporary or more enduring aberrations in his own personality may interfere with this ability or distort his appraisals of others. There he refrains from undertaking any activity in which his personal problems are likely to result in inferior professional services or harm to a client; or, if he is already engaged in such an activity when he becomes aware of his personal problems, he seeks competent professional assistance to determine whether he should continue or terminate his services to his client.

Principle 3. Moral and Legal Standards. The psychologist in the practice of his profession shows sensible regard for the social codes and moral expectations of the community in which he works, recognizing that violations of accepted moral and legal standards on his part may involve his clients, students, or colleagues in damaging personal conflicts and impugn his own name and the reputation of his profession.

Principle 4. Misrepresentation. The psychologist avoids misrepresentation of his own professional qualifications, affiliations, and purposes, and

those of the institutions and organizations with which he is associated.

- a. A psychologist does not claim either directly or by implication professional qualifications that differ from his actual qualifications, nor does he misrepresent his affiliation with any institution, organization, or individual, nor lead others to assume he has affiliations that he does not have. The psychologist is responsible for correcting others who misrepresent his professional qualifications or affiliations.
- b. The psychologist does not misrepresent an institution or organization with which he is affiliated by ascribing to it characteristics that it does not have.
- c. A psychologist does not use his affiliation with the American Psychological Association or its divisions for purposes that are not consonant with the stated purpose of the Association.
- d. A psychologist does not associate himself with or permit his name to be used in connection with any services or products in such a way as to misrepresent them, the degree of his responsibility for them, or the nature of his affiliation.

Principle 5. Public Statements. Modesty, scientific caution, and due regard for the limits of present knowledge characterize all statements of psychologists who supply information to the public, either directly or indirectly.

- a. Psychologists who interpret the science of psychology or the services of psychologists to clients or to the general public have an obligation to report fairly and accurately. Exaggeration, sensationalism, superficiality, and other kinds of misrepresentation are avoided.
- b. When information about psychological procedures and techniques is given, care is taken to indicate that they should be used only by persons adequately trained in their use.
- c. A psychologist who engages in radio or television activities does not participate in commercial announcements recommending purchase or use of a product.

Principle 6. Confidentiality. Safeguarding information about an individual that has been obtained by the psychologist in the course of his teaching, practice, or investigation is a primary obligation of the psychologist. Such information is not communicated to others unless certain important conditions are met.

- a. Information received in confidence is revealed only after most careful deliberation and when there is clear and imminent danger to an individual or to society, and then only to appropriate professional workers or public authorities.
- b. Information obtained in clinical or consulting relationships, or evaluative data concerning children, students, employees, and others are discussed only for professional purposes and only with persons clearly con-

cerned with the case. Written and oral reports should present only data germane to the purposes of the evaluation; every effort should be made to avoid undue invasion of privacy.

- c. Clinical and other materials are used in classroom teaching and writing only when identity of the persons involved is adequately disguised.
- d. The confidentiality of professional communications about individuals is maintained. Only when the originator and other persons involved give their express permission is a confidential professional communication shown to the individual concerned. The psychologist is responsible for informing the client of the limits of the confidentiality.
- e. Only after explicit permission has been granted is the identity of research subjects published. When data have been published without permission for identification, the psychologist assumes responsibility for adequately disguising their sources.
- f. The psychologist makes provisions for the maintenance of confidentiality in the preservation and ultimate disposition of confidential records.

Principle 7. Client Welfare. The psychologist respects the integrity and protects the welfare of the person or group with whom he is working.

- a. The psychologist in industry, education, and other situations in which conflicts of interest may arise among various parties, as between management and labor, or between the client and employer of the psychologist, defines for himself the nature and direction of his loyalties and responsibilities and keeps all parties concerned informed of these commitments.
- b. When there is a conflict among professional workers, the psychologist is concerned primarily with the welfare of any client involved and only secondarily with the interest of his own professional group.
- c. The psychologist attempts to terminate a clinical or consulting relationship when it is reasonably clear to the psychologist that the client is not benefiting from it.
- d. The psychologist who asks that an individual reveal personal information in the course of interviewing, testing, or evaluation, or who allows such information to be divulged to him, does so only after making certain that the responsible person is fully aware of the purposes of the interview, testing, or evaluation and of the ways in which the information may be used.
- e. In cases involving referral, the responsibility of the psychologist for the welfare of the client continues until this responsibility is assumed by the professional person to whom the client is referred or until the relationship with the psychologist making the referral has been terminated by mutual agreement. In situations where referral, consultation, or other changes in the conditions of the treatment are indicated and the client refuses referral, the psychologist carefully weighs the possible harm to the client, to himself, and to his profession that might ensue from continuing the relationship.

- f. The psychologist who uses physical tests for didactic purposes protects the examinee and test results are kept confidential.
- g. When potentially embarrassing information is presented to students, efforts are made to protect the students.
- h. Care must be taken to protect the client from actual or implied censure.
- i. In the use of accepted special care needs to be taken to assure himself that he provides suitable safety.

Principle 8. Client Relationship. The psychologist informs his client of the important aspects of the relationship that might affect the client's welfare.

- a. Aspects of the relationship that might affect the client's welfare include the use of interview methods, observation of an interview, and the like.
- b. When the client is in a position of authority (as in the case of a patient), the psychologist is responsible for the client's welfare.
- c. The psychologist does not enter into intimate relationships with close friends, etc., unless the client's welfare might be jeopardized.

Principle 9. Impersonal Services. The psychologist provides impersonal services for the public or gives personalized advice in the context of a professional relationship given by means of publications, newspaper or magazine articles, television programs, mail-order services, etc.

- a. The preparation of recommendations based on personal knowledge is unethical unless such knowledge is obtained from a continuing client or from a source that can be assured to be reliable.
- b. The information given will be adequate to be interpreted by the client and can be embellished with subjective knowledge of the client's personality traits.
- c. After intensive interviews, reports must not make reference to employment or plans beyond the psychological report.

- f. The psychologist who requires the taking of psychological tests for didactic, classification, or research purposes protects the examinees by ensuring that the tests and test results are used in a professional manner.
- g. When potentially disturbing subject matter is presented to students, it is discussed objectively, and efforts are made to handle constructively any difficulties that arise.
- h. Care must be taken to ensure an appropriate setting for clinical work to protect both client and psychologist from actual or imputed harm and the profession from censure.
- i. In the use of accepted drugs for therapeutic purposes special care needs to be exercised by the psychologist to assure himself that the collaborating physician provides suitable safeguards for the client.

Principle 8. Client Relationship. The psychologist informs his prospective client of the important aspects of the potential relationship that might affect the client's decision to enter the relationship.

- a. Aspects of the relationship likely to affect the client's decision include the recording of an interview, the use of interview material for training purposes, and observation of an interview by other persons.
- b. When the client is not competent to evaluate the situation (as in the case of a child), the person responsible for the client is informed of the circumstances which may influence the relationship.
- c. The psychologist does not normally enter into a professional relationship with members of his own family, intimate friends, close associates, or others whose welfare might be jeopardized by such a dual relationship.

Principle 9. Impersonal Services. Psychological services for the purpose of diagnosis, treatment, or personalized advice are provided only in the context of a professional relationship and are not given by means of public lectures or demonstrations, newspaper or magazine articles, radio or television programs, mail, or similar media.

- a. The preparation of personnel reports and recommendations based on test data secured solely by mail is unethical unless such appraisals are an integral part of a continuing client relationship with a company, as a result of which the consulting psychologist has intimate knowledge of the client's personnel situation and can be assured thereby that his written appraisals will be adequate to the purpose and will be properly interpreted by the client. These reports must not be embellished with such detailed analyses of the subject's personality traits as would be appropriate only after intensive interviews with the subject. The reports must not make specific recommendations as to employment or placement of the subject which go beyond the psychologist's knowledge of the job re-

quirements of the company. The reports must not purport to eliminate the company's need to carry on such other regular employment or personnel practices as appraisal of the work history, checking of references, past performance in the company.

Principle 10. Announcement of Services. A psychologist adheres to professional rather than commercial standards in making known his availability for professional services.

- a. A psychologist does not directly solicit clients for individual diagnosis or therapy.
- b. Individual listings in telephone directories are limited to name, highest relevant degree, certification status, address, and telephone number. They may also include identification in a few words of the psychologist's major areas of practice; for example, child therapy, personnel selection, industrial psychology. Agency listings are equally modest.
- c. Announcements of individual private practice are limited to a simple statement of the name, highest relevant degree, certification or diplomate status, address, telephone number, office hours, and a brief explanation of the types of services rendered. Announcements of agencies may list names of staff members with their qualifications. They conform in other particulars with the same standards as individual announcements, making certain that the true nature of the organization is apparent.
- d. A psychologist or agency announcing nonclinical professional services may use brochures that are descriptive of services rendered but not evaluative. They may be sent to professional persons, schools, business firms, government agencies, and other similar organizations.
- e. The use in a brochure of "testimonials from satisfied users" is unacceptable. The offer of a free trial of services is unacceptable if it operates to misrepresent in any way the nature or the efficacy of the services rendered by the psychologist. Claims that a psychologist has unique skills or unique devices not available to others in the profession are made only if the special efficacy of these unique skills or devices has been demonstrated by scientifically acceptable evidence.
- f. The psychologist must not encourage (nor, within his power, even allow) a client to have exaggerated ideas as to the efficacy of services rendered. Claims made to clients about the efficacy of his services must not go beyond those which the psychologist would be willing to subject to professional scrutiny through publishing his results and his claims in a professional journal.

Principle 11. Interprofessional Relations. A psychologist acts with integrity in regard to colleagues in psychology and in other professions.

- a. A psychologist does not normally offer professional services to a person receiving psychological assistance from another professional worker except by agreement

- with the other worker or after the termination of the client's relationship with the other professional worker.
- b. The welfare of clients and colleagues requires that psychologists in joint practice or corporate activities make an orderly and explicit arrangement regarding the conditions of their association and its possible termination. Psychologists who serve as employers of other psychologists have an obligation to make similar appropriate arrangements.

Principle 12. Remuneration. Financial arrangements in professional practice are in accord with professional standards that safeguard the best interest of the client and the profession.

- a. In establishing rates for professional services, the psychologist considers carefully both the ability of the client to meet the financial burden and the charges made by other professional persons engaged in comparable work. He is willing to contribute a portion of his services to work for which he receives little or no financial return.
- b. No commission or rebate or any other form of remuneration is given or received for referral of clients for professional services.
- c. The psychologist in clinical or counseling practice does not use his relationships with clients to promote, for personal gain or the profit of an agency, commercial enterprises of any kind.
- d. A psychologist does not accept a private fee or any other form of remuneration for professional work with a person who is entitled to his services through an institution or agency. The policies of a particular agency may make explicit provision for private work with its clients by members of its staff, and in such instances the client must be fully apprised of all policies affecting him.

Principle 13. Test Security. Psychological tests and other assessment devices, the value of which depends in part on the naïveté of the subject, are not reproduced or described in popular publications in ways that might invalidate the techniques. Access to such devices is limited to persons with professional interests who will safeguard their use.

- a. Sample items made up to resemble those of tests being discussed may be reproduced in popular articles and elsewhere, but scorable tests and actual test items are not reproduced except in professional publications.
- b. The psychologist is responsible for the control of psychological tests and other devices and procedures used for instruction when their value might be damaged by revealing to the general public their specific contents or underlying principles.

Principle 14. Test Interpretation. Test scores, like test materials, are released only to persons who are qualified to interpret and use them properly.

- a. Materials for reporting test scores to parents, or which are designed for self-appraisal purposes in schools, social agencies, or industry are closely supervised by qualified psychologists or counselors with provisions for referring and counseling individuals when needed.
- b. Test results or other assessment data used for evaluation or classification are communicated to employers, relatives, or other appropriate persons in such a manner as to guard against misinterpretation or misuse. In the usual case, an interpretation of the test result rather than the score is communicated.
- c. When test results are communicated directly to parents and students, they are accompanied by adequate interpretive aids or advice.

Principle 15. Test Publication. Psychological tests are offered for commercial publication only to publishers who present their tests in a professional way and distribute them only to qualified users.

- a. A test manual, technical handbook, or other suitable report on the test is provided which describes the method of constructing and standardizing the test and summarizes the validation research.
- b. The populations for which the test has been developed and the purposes for which it is recommended are stated in the manual. Limitations upon the test's dependability, and aspects of its validity on which research is lacking or incomplete, are clearly stated. In particular, the manual contains a warning regarding interpretations likely to be made which have not yet been substantiated by research.
- c. The catalog and manual indicate the training or professional qualifications required for sound interpretation of the test.
- d. The test manual and supporting documents take into account the principles enunciated in the *Standard for Educational and Psychological Tests and Manuals*.
- e. Test advertisements are factual and descriptive rather than emotional and persuasive.

Principle 16. Research Precautions. The psychologist assumes obligations for the welfare of his research subjects, both animal and human.

- a. Only when a problem is of scientific significance and is not practicable to investigate it in any other way is the psychologist justified in exposing research subjects, whether children or adults, to physical or emotional stress as part of an investigation.
- b. When a reasonable possibility of injurious after-effects exists, research is conducted only when the subjects or their responsible agents are fully informed of this possibility and agree to participate nevertheless.
- c. The psychologist seriously considers the possibility of harmful aftereffects and avoids them, or removes them as soon as permitted by the design of the experiment.
- d. A psychologist using animals in research adheres to the provisions of the Rules Regarding Animals, drawn up by the Committee on Precautions and Standards.

Animal Experiments
Psychological Association
e. Investigations of drugs (for example, psychedelic, or similar) only in such settings as facilities maintained by subjects.

Principle 17. Publication. Published material is signed to those who have contributed to it, in proportion to their share of these.

- a. Major contribution by several persons is recognized by joint authorship, and the person who has made the major contribution is identified as such.
- b. Minor contribution by one or more persons, extensive clerical or secretarial work, and other minor contributions are acknowledged in footnotes or in an index.
- c. Acknowledgment that a paper has been unpublished as well as the names of persons directly influenced by it.
- d. A psychologist who has contributed to a paper presents the contribution at a professional meeting or report or symposium, with his name or editor among the other committee members.

Principle 18. Responsibility. A psychologist is responsible for the welfare of his research subjects, both animal and human.

Animal Experimentation and adopted by the American Psychological Association.

- e. Investigations of human subjects using experimental drugs (for example, hallucinogenic, psychotomimetic, psychedelic, or similar substances) should be conducted only in such settings as clinics, hospitals, or research facilities maintaining appropriate safeguards for the subjects.

Principle 17. Publication Credit. Credit is assigned to those who have contributed to a publication, in proportion to their contribution, and only to these.

- a. Major contributions of a professional character, made by several persons to a common project, are recognized by joint authorship. The experimenter or author who has made the principal contribution to a publication is identified as the first listed.
- b. Minor contributions of a professional character, extensive clerical or similar nonprofessional assistance, and other minor contributions are acknowledged in footnotes or in an introductory statement.
- c. Acknowledgment through specific citations is made for unpublished as well as published material that has directly influenced the research or writing.
- d. A psychologist who compiles and edits for publication the contributions of others publishes the symposium or report under the title of the committee or symposium, with his own name appearing as chairman or editor among those of the other contributors or committee members.

Principle 18. Responsibility toward Organization. A psychologist respects the rights and rep-

utation of the institute or organization with which his is associated.

- a. Materials prepared by a psychologist as a part of his regular work under specific direction of his organization are the property of that organization. Such materials are released for use or publication by a psychologist in accordance with policies of authorization, assignment of credit, and related matters which have been established by his organization.
- b. Other material resulting incidentally from activity supported by any agency, and for which the psychologist rightly assumes individual responsibility, is published with disclaimer for any responsibility on the part of the supporting agency.

Principle 19. Promotional Activities. The psychologist associated with the development or promotion of psychological devices, books, or other products offered for commercial sale is responsible for ensuring that such devices, books, or products are presented in a professional and factual way.

- a. Claims regarding performance, benefits, or results are supported by scientifically acceptable evidence.
- b. The psychologist does not use professional journals for the commercial exploitation of psychological products, and the psychologist-editor guards against such misuse.
- c. The psychologist with a financial interest in the sale or use of a psychological product is sensitive to possible conflict of interest in his promotion of such products and avoids compromise of his professional responsibilities and objectives.

G *APA Diagnostic and Statistical Manual Mental Disorders, 1952*

DIAGNOSTIC •
AND
STATISTICAL •
MANUAL

MENTAL
DISORDERS



AMERICAN PSYCHIATRIC ASSOCIATION

DIAGNOSTIC AND STATISTICAL
MANUAL

MENTAL
DISORDERS

Prepared by

The Committee on Nomenclature and Statistics of the
American Psychiatric Association

PUBLISHED BY

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FOREWORD

The development of a uniform nomenclature of disease in the United States is comparatively recent. In the late twenties, each large teaching center employed a system of its own origination, no one of which met more than the immediate needs of the local institution. Despite their local origins, for lack of suitable alternatives, these systems were spread in use throughout the nation, ordinarily by individuals who had been trained in a particular center, hence had become accustomed to that special system of nomenclature. Modifications in the transplanted nomenclatures immediately became necessary, and were made as expediency dictated. There resulted a polyglot of diagnostic labels and systems, effectively blocking communication and the collection of medical statistics.

In late 1927, the New York Academy of Medicine spearheaded a movement out of this chaos towards a nationally accepted standard nomenclature of disease. In March, 1928, the first National Conference on Nomenclature of Disease met at the Academy; this conference was composed of representatives of interested governmental agencies and of the national societies representing the medical specialties. A trial edition of the proposed new nomenclature was published in 1932, and distributed to selected hospitals for a test run. Following the success of these tests, the first official edition of the Standard Classified Nomenclature of Disease was published in 1933, and was widely adopted in the next two years.¹ Two subsequent revisions have been made, the last in 1942. The nomenclature in this manual constitutes the section on Diseases of the Psychobiologic Unit from the Fourth Edition of the Standard Nomenclature of Diseases and Operations, 1952.

Prior to the first edition of the Standard, psychiatry was in a somewhat more favorable situation regarding standardized nomenclature than was the large body of American medicine. The Committee on Statistics of the American Psychiatric Association (then the American Medico-psychological Association) had formulated a plan for uniform statistics in hospitals for mental disease which was officially adopted by the Association in May, 1917. This plan included a classification of mental disease which, although primarily a statistical classification, was usable in a limited way as a nomenclature. The National Committee for Mental Hygiene introduced the new

¹ For details of the development of the Standard, see "Textbook and Guide to the Standard Nomenclature of Diseases and Operations," Physicians Record Co., Chicago, Illinois.

classification and statistical system in hospitals throughout the country, and continued to publish the "Statistical Manual for the Use of Hospitals for Mental Diseases" through the years. The Committee on Nomenclature and Statistics of the American Psychiatric Association collaborated with the National Committee in this publication. With approval of the Council, and by agreement with the National Committee for Mental Hygiene (now the National Association for Mental Health), the Mental Hospital Service of the American Psychiatric Association now assumes responsibility for future publication of the Statistical Manual, which has been re-titled, "Diagnostic and Statistical Manual for Mental Disorders," and is presented here in its first edition.

The American Psychiatric Association cooperated, as the representative national society, in the establishment of the Standard Nomenclature of Disease. With the publication of the first edition of the Standard, a considerable revision in the Statistical Manual became necessary. This revision was accomplished in the Eighth Edition of the Statistical Manual, 1934. The classification system of the new Standard Nomenclature was included, together with a condensed list for statistical use. For the first time the difference in a system of nomenclature and a system of statistical classification was underscored (see Appendix A).

Only minor changes were made in the section on Mental Disorders in later revisions of the Standard, this section being essentially the same in the 1933 and 1942 editions. Many teaching centers devised modified systems of nomenclature for their own use, but the official nomenclature into which diagnoses were coded for statistical and medical record files remained the original 1933 nomenclature, as published in the Standard. As a result, at the beginning of World War II, American psychiatry, civilian and military, was utilizing a system of naming developed primarily for the needs and case loads of public mental hospitals. The origin of this system was in itself predictive of the difficulties which would soon be encountered.

The Armed Forces faced an increasing psychiatric case load as mobilization and the war went on. There was need to account accurately for all causes of morbidity, hence the need for a suitable diagnosis for every case seen by the psychiatrist, a situation not faced in civilian life. Only about 10% of the total cases seen fell into any of the categories ordinarily seen in public mental hospitals. Military psychiatrists, induction station psychiatrists, and Veterans Administration psychiatrists, found themselves operating within the limits of a nomenclature specifically not designed for 90% of the cases handled. Relatively minor personality disturbances, which became

of importance only in the military setting, had to be classified as "Psychopathic Personality." Psychosomatic disorders turned up in the nomenclature under the various organ systems by whatever name a gastroenterologist or cardiologist had devised for them. The "psychoneurotic label" had to be applied to men reacting briefly with neurotic symptoms to considerable stress; individuals who, as subsequent studies have shown, were not ordinarily psychoneurotic in the usual meaning of the term. No provision existed for diagnosing psychological reactions to the stress of combat, and terms had to be invented to meet this need. The official system of nomenclature rapidly became untenable.

In 1944, the Navy made a partial revision of its nomenclature to meet the deficiencies mentioned, but attempted to stay within the limits of the Standard where possible. In 1945, the Army established a much more sweeping revision, abandoning the basic outline of the Standard and attempting to express present day concepts of mental disturbance. This nomenclature eventually was adopted by all Armed Forces, and in 1946 the Veterans Administration adopted a new nomenclature which resembled closely that of the Armed Forces. In 1948, a revised International Statistical Classification was adopted, and categorized mental disorders in rubrics similar to those of the Armed Forces nomenclature.

By 1948, then, the situation in psychiatric nomenclature had deteriorated almost to the point of confusion which existed throughout medical nomenclature in the twenties. At least three nomenclatures (Standard, Armed Forces, and Veterans Administration) were in general use, and none of them fell accurately into line with the International Statistical Classification. One agency found itself in the uncomfortable position of using one nomenclature for clinical use, a different one for disability rating, and the International for statistical work. In addition, practically every teaching center had made modifications of the Standard for its own use and assorted modifications of the Armed Forces nomenclature had been introduced into many clinics and hospitals by psychiatrists returning from military duty.

Following the adoption of new nomenclatures by the Army and Veterans Administration, the Committee on Nomenclature and Statistics of the American Psychiatric Association postponed change in its recommended official nomenclature pending some evidence as to the usability of the new systems. In 1948, the Committee undertook to learn from the Army and Veterans Administration how successful the changes had been, and what the shortcomings of the new systems were. Simultaneously, an effort was made to determine the sentiments of the membership regarding the need for a change in the then current Standard.

A high percentage of psychiatrists contacted felt that change in the nomenclature was urgently needed, with special attention to the areas of personality disorders and transient reactions to special stress. The need for change seemed to be felt more strongly by those in clinic and private practice than by those in mental hospital or institutional work. However, a considerable proportion of mental hospital staffs urged change; this was especially true where outpatient clinics had been established in connection with the hospitals.

The Army and Veterans Administration reported that their revisions were considered successful by clinicians and statisticians. Statistically, the revisions were said to be more easily handled than the old nomenclatures, particularly when it became necessary to code diagnoses into the revised International. After some expected initial difficulties in using the new terms, clinicians reported that the revisions were much more useful than the old listing. Psychiatrists who had become accustomed to the revised nomenclature in the Army were unwilling to return to the Standard Nomenclature upon return to civilian life. The major shortcoming in both revisions was reported to be the classification of mental disorders accompanying organic brain disease, a minor problem in military psychiatry but a major item in civilian psychiatry.

With a need for a revision established, and guidelines drawn from the experience of the Armed Forces and Veterans Administration, the Committee set about drafting a proposed revision. Source material received by the Army and Veterans Administration during the process of their revisions was utilized, psychiatric teaching units were contacted for ideas, especially concerning the organic brain disorders, and efforts were made to obtain all possible suggestions from the body of American psychiatry, as well as from the literature. From March, 1950, the Chief of the Biometrics Branch, National Institute of Mental Health, served as a consultant to the Committee to assist with the statistical aspects of the revision.

In April, 1950, the Committee distributed mimeographed copies of a proposed revision of the psychiatric nomenclature to approximately 10% of the membership of the American Psychiatric Association. Addressees were picked from the geographical listing of members, 10% of the members in each State and Canada being selected. In addition, addressees were selected by position held, in order to give complete coverage to all areas of psychiatry. Attention was paid to membership in other organizations (American Neurological Association, American Psychoanalytic Association, Academy of Neurology, American Psychopathological Association, etc.), so that a fair

sampling of those groups was included. Members of the staffs of State Departments of Mental Health were included in order to obtain an expression of opinion from such departments concerning the statistical and clinical impact of the proposed revision.

The proposed revision was accompanied by a nine-page questionnaire asking for opinions and suggestions on all sections of the revision. A deadline of July 1, 1950, was set for return of the questionnaire in order that the work might be completed in time for the November, 1950 meeting of Council. As the questionnaires were returned, they were broken down into sections and mailed out to individual members of the Committee, each of whom had been assigned a specific area of the revision for study. A master file of questionnaire returns was established in the Office of the Medical Director for quick reference.

There were 520 questionnaires distributed; 241 were returned in time for consideration by the Committee. Of these, 224 (93%) expressed general approval of the suggested revision, 11 (5%) expressed general disapproval, and 6 (2%) were neutral. Such overwhelming approval was not accorded all sections of the revision, but the lowest approval rate on any section was 72%. The returns were not simply blanket approvals or disapprovals; more than half contained specific suggestions and recommendations. An unexpectedly high proportion of addressees had made the revision and questionnaire points of extensive discussion with colleagues. Several mental hospitals held a number of staff meetings devoted to such discussions, other clinics and administrative groups did the same. It therefore appeared that the Committee had received the considered opinion of a very large portion of American psychiatry.

Armed with this wealth of thoughtful material, the Committee prepared a second revision, incorporating the information obtained from the questionnaires. As had been done in the case of the first revision, this second revision was sent to the Editor of the Standard Nomenclature for comment, and particularly to learn whether it could be incorporated in the general framework of the Standard. With minor changes in wording and coding, this second revision was acceptable to the Standard.

Accordingly, the revision was presented to Council of the American Psychiatric Association at its meetings on November 6, 1950, with the recommendations that it be adopted as the officially supported nomenclature of the American Psychiatric Association, that it be recommended by Council to the Standard Nomenclature for inclusion in the 1951 edition, and that the Committee be authorized to prepare this Diagnostic and Statistical

Manual for publication by the Association. These recommendations were approved by Council.

The collection of statistics on mental illness morbidity has long been a stepchild of Federal Government. Delegated from year to year on a fiscal basis to the Bureau of the Census, morbidity statistics in this most important area perhaps would never have been collected had it not been for the untiring efforts of former Committees on Statistics of the American Psychiatric Association and the National Committee on Mental Hygiene. It has therefore been most important in the past that this manual devote most of its attention to statistics, as was indicated by its name.

In 1946, an Act of Congress authorized the establishment of the National Institute of Mental Health, under the United States Public Health Service. A Biometrics Branch has been established in that Institute, and concerns itself with the operational features of statistical reporting. It is, therefore, no longer necessary for the American Psychiatric Association to remain in the operational field as far as statistics are concerned. In keeping with the status of this Association as a scientific professional society, it has seemed appropriate to limit the statistical section of this Manual to a statement of general principles and procedures, leaving the preparation of detailed operating manuals to the operational agency created for that purpose, this Committee acting in a consultant capacity to that agency.

Despite its recent origin, the Biometrics Branch of the National Institute of Mental Health has made handsome strides toward major statistical objectives. A conference has been held of statisticians and mental hygiene administrators from 11 States, having together 55% of the average daily resident patient population in all State hospitals. The need for basic agreement concerning definition of terms and minimum tabulations has been emphasized. A model area for the reporting of morbidity statistics on the hospitalized mentally ill has been established. Further progress along these lines can be expected. Valuable operational data in the field of statistics has been, and is being, brought together, and is available to those who have detailed operational questions not covered by this Manual. This information may be obtained by correspondence with the Chief of the Biometrics Branch, National Institute of Mental Health, Bethesda 14, Maryland.

Dr. Morton Kramer, Chief, Biometrics Branch, National Institute of Mental Health, has worked with this Committee as Consultant in Statistics, and has prepared the majority of Sections IV and V. In addition, he and members of the Committee have worked assiduously with Dr. Selwyn Collins, Head Statistician, Division of Public Health Methods, United States Public

Health Service, and his assistant, Mrs. Louise E. Bollo, Nosologist, in preparing the crosscoding of Diseases of the Psychobiologic Unit of the Standard, with the International Classification, an effort of no small note. Dr. Richard J. Plunkett, Editor of the Standard Nomenclature of Diseases and Operations, has been most cooperative and helpful. His Associate Editor, Mrs. Adaline C. Hayden, has been doubly assistive in her role of associate editor of the Standard and as co-author of the "Textbook and Guide to the Standard Nomenclature of Diseases and Operations," with Dr. Edward T. Thompson, who himself has spent much time working with such tedious problems as crosscoding the old and new nomenclatures.

The American Medical Association and P. Blakiston and Sons, Inc., publishers of the Standard Nomenclature, have permitted republication of several portions of the Standard necessary to make this Manual complete. The Physicians Record Company, publisher of "Textbook and Guide to the Standard Nomenclature of Diseases and Operations," has permitted republication of parts of that book. These are indicated appropriately in the footnotes of the Manual.

As may be surmised from the narrative account above, it would be impossible to acknowledge the assistance received from various members of the American Psychiatric Association and others, as they number many.

It would be unjust to list here only the names of those who were members of the Committee on Nomenclature and Statistics at the time of completion of this revision, since those who went before each contributed in some way to the information which finally led to this particular revision. For that reason, the names of those who have served on the Committee since 1946, with their terms of service, are listed.

George N. Raines, M. D
Chairman
Committee on Nomenclature and Statistics

Washington, D. C.
November, 1951

COMMITTEE ON NOMENCLATURE AND STATISTICS, 1951

GEORGE N. RAINES, *Chairman*

MOSES M. FROHLICH

ERNEST S. GODDARD

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MABEL ROSS

ROBERT S. SCHWAB

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OTHER MEMBERS OF THE COMMITTEE, 1946-1951

FRANZ ALEXANDER, 1947-1950

JOHN M. BAIRD, 1948-1951

ABRAM E. BENNETT, 1941-1946

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Chairman, 1942-1946

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JACOB KASANIN, 1944-1946

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J. DAVIS REICHARD, 1946-1950

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EDWARD A. STRECKER, 1948-1951

PAUL L. WHITE, 1946-1950

SECTION I

0— DISEASES OF THE PSYCHOBIOLOGIC UNIT †

INTRODUCTION

Previous changes of the Psychobiologic unit have been restricted by the timing of each revision. This revision is perfectly timed to include the experiences of psychiatrists of World War II, the results of several years usage by the military and Veterans Administration of a revised army nomenclature, the pattern of a new international code and the results of several years deliberation of the Nomenclature Committee of the American Psychiatric Association. As a result of all these we were enabled to offer a completely new classification in conformity with newer scientific and clinical knowledge, simpler in structure, easier to use and virtually identical with other national and international nomenclatures.

Qualifying Phrases

- .x1 With psychotic reaction
- .x2 With neurotic reaction
- .x3 With behavioral reaction

The above qualifying phrases may be added to any diagnosis in the Psychobiologic Unit when needed to further define or describe the clinical picture. They will not be used where such use is redundant. In general, the phrase will be redundant when it repeats the major heading of any group of diagnosis, for example:

- .x1 is redundant when used with a diagnosis listed under Psychotic Disorders
- .x2 is redundant when used with Psychoneurotic Disorders
- .x3 is redundant when used with Personality Disorders

A qualifying phrase is not ordinarily needed with any diagnosis in the group of acute organic brain disorders, as the diagnosis itself implies a delirium, a temporary psychotic state.

† Reprinted from "Standard Nomenclature of Diseases and Operations," Fourth Edition, Published for American Medical Association, the Blakistone Co., Philadelphia, 1952.

DISORDERS CAUSED BY OR ASSOCIATED WITH IMPAIRMENT OF BRAIN TISSUE FUNCTION

(Note: The number in parenthesis in the right hand margin is the appropriate code number from the International Statistical Classification. See Appendix A.)

ACUTE BRAIN DISORDERS

—1 DISORDERS DUE TO OR ASSOCIATED WITH INFECTION

- | | | |
|---------|---|-----------|
| 009-100 | Acute Brain Syndrome associated with intracranial infection. <i>Specify infection</i> | (308.5) * |
| 000-100 | Acute Brain Syndrome associated with systemic infection. <i>Specify infection</i> | (308.3) * |

—3 DISORDERS DUE TO OR ASSOCIATED WITH INTOXICATION

- | | | |
|-----------|---|-----------|
| 000-3.. | Acute Brain Syndrome, drug or poison intoxication.
<i>Specify drug or poison</i> | (308.5) * |
| 000-3312 | Acute Brain Syndrome, alcohol intoxication | (307) * |
| 000-33122 | Acute hallucinosis | (307) |
| 000-33123 | Delirium tremens | (307) |

—4 DISORDERS DUE TO OR ASSOCIATED WITH TRAUMA

- | | | |
|---------|---|-----------|
| 000-4.. | Acute Brain Syndrome associated with trauma.
<i>Specify trauma</i> | (308.2) * |
|---------|---|-----------|

—50 DISORDERS DUE TO OR ASSOCIATED WITH CIRCULATORY DISTURBANCE

- | | | |
|---------|--|-----------|
| 000-5.. | Acute Brain Syndrome associated with circulatory disturbance. <i>(Indicate cardiovascular disease as additional diagnosis)</i> | (308.4) * |
|---------|--|-----------|

—55 DISORDERS DUE TO OR ASSOCIATED WITH DISTURBANCE OF INNERVATION OR OF PSYCHIC CONTROL

- | | | |
|---------|---|-----------|
| 000-550 | Acute Brain Syndrome associated with convulsive disorder. <i>(Indicate manifestation by Supplementary Term)</i> | (308.1) * |
|---------|---|-----------|

—7 DISORDERS DUE TO OR ASSOCIATED WITH DISTURBANCE OF METABOLISM, GROWTH OR NUTRITION

- | | | |
|---------|--|-----------|
| 000-7.. | Acute Brain Syndrome with metabolic disturbance.
<i>Specify</i> | (308.5) * |
|---------|--|-----------|

—8 DISORDERS DUE TO OR ASSOCIATED WITH NEW GROWTH

- | | | |
|---------|--|-----------|
| 000-8.. | Acute Brain Syndrome associated with intracranial neoplasm. <i>Specify</i> | (308.0) * |
|---------|--|-----------|

—9 DISORDERS DUE TO UNKNOWN OR UNCERTAIN CAUSE

- | | | |
|---------|--|-----------|
| 000-900 | Acute Brain Syndrome with disease of unknown or uncertain cause. <i>(Indicate disease as additional diagnosis)</i> | (308.5) * |
|---------|--|-----------|

—X DISORDERS DUE TO UNKNOWN OR UNCERTAIN CAUSE WITH THE FUNCTIONAL REACTION ALONE MANIFEST

000-xx0 Acute Brain Syndrome of unknown cause (309.1) *

CHRONIC BRAIN DISORDERS¹

—0 DISORDERS DUE TO PRENATAL (CONSTITUTIONAL) INFLUENCE

009-0..	Chronic Brain Syndrome associated with congenital cranial anomaly. <i>Specify anomaly</i>	(328.0) *
009-016	Chronic Brain Syndrome associated with congenital spastic paraplegia	(328.0) *
009-071	Chronic Brain Syndrome associated with Mongolism	(328.0) *
009-052	Chronic Brain Syndrome due to prenatal maternal infectious diseases	(328.0) *

—1 DISORDERS DUE TO OR ASSOCIATED WITH INFECTION

0...-147.0	Chronic Brain Syndrome associated with central nervous system syphilis. <i>Specify as below</i>	(026.9) *
009-147.0	Meningoencephalitic	(025.9) *
004-147.0	Meningovascular	(026.9) *
0y0-147.0	Other central nervous system syphilis	(026.9) *
009-1...0	Chronic Brain Syndrome associated with intracranial infection other than syphilis. <i>Specify infection</i> ²	(328.1) *

—3 DISORDERS ASSOCIATED WITH INTOXICATION

009-300	Chronic Brain Syndrome associated with intoxication	(328.2) *
009-3..	Chronic Brain Syndrome, drug or poison intoxication. <i>Specify drug or poison</i>	(328.2) *
009-3312	Chronic Brain Syndrome, alcohol intoxication <i>Specify reaction .x1, .x2, .x3 when known</i>	(322.9) *

—4 DISORDERS ASSOCIATED WITH TRAUMA

009-050	Chronic Brain Syndrome associated with birth trauma	(328.3) *
009-400	Chronic Brain Syndrome associated with brain trauma	(328.4) *
009-4..	Chronic Brain Syndrome, brain trauma, gross force. <i>Specify. (Other than operative)</i>	(328.4) *
009-415	Chronic Brain Syndrome following brain operation	(328.4) *
009-462	Chronic Brain Syndrome following electrical brain trauma	(328.4) *

¹ The qualifying phrase "Mental Deficiency" .x4 (mild .x41, moderate .x42, or severe .x43) should be added at the end of the diagnosis in disorders of this group which present mental deficiency as the major symptom of the disorder. Include intelligence quotient (I. Q.) in the diagnosis.

009-470 Chronic Brain Syndrome* following irradiational
brain trauma (328.4)*

-5 DISORDERS ASSOCIATED WITH CIRCULATORY DISTURBANCES

009-516 Chronic Brain Syndrome associated with cerebral arteriosclerosis (328.5)*

009-5.. Chronic Brain Syndrome associated with circulatory disturbance other than cerebral arteriosclerosis.
Specify (328.6) *

-55 DISORDERS ASSOCIATED WITH DISTURBANCES OF INNERVATION OR OF PSYCHIC CONTROL

009-550 Chronic Brain Syndrome associated with convulsive disorder (353.9)*

-7 DISORDERS ASSOCIATED WITH DISTURBANCE OF METABOLISM, GROWTH OR NUTRITION

009-79x Chronic Brain Syndrome associated with senile brain disease (794.9)*

009-700 Chronic Brain Syndrome associated with other disturbance of metabolism, growth or nutrition
(Includes presenile, glandular, pellagra, familial amaurosis) (328.8)*

-8 DISORDERS ASSOCIATED WITH NEW GROWTH

009-8.. Chronic Brain Syndrome associated with intracranial neoplasm. *Specify neoplasm* (328.9)*

9 DISORDERS ASSOCIATED WITH UNKNOWN OR UNCERTAIN CAUSE

009-900 Chronic Brain Syndrome associated with diseases of unknown or uncertain cause (Includes multiple sclerosis, Huntington's chorea, Pick's disease and other diseases of a familial or hereditary nature).
Indicate disease by additional diagnosis (328.9) *

- X DISORDERS DUE TO UNKNOWN OR UNCERTAIN CAUSE WITH THE FUNCTIONAL REACTION ALONE MANIFEST

009-xx0 Chronic Brain Syndrome of unknown cause (328.9) *

* When infection is more important than the reaction or mental deficiency, specify the infection. If both infection and reaction or mental deficiency are important two diagnoses are required.

MENTAL DEFICIENCY^a

— X DISORDERS DUE TO UNKNOWN OR UNCERTAIN CAUSE WITH THE FUNCTIONAL REACTION ALONE MANIFEST; HEREDITARY AND FAMILIAL DISEASES OF THIS NATURE

000-x90	Mental deficiency (familial or hereditary)	(325.5) *
000-x901	Mild	(325.3) *
000-x902	Moderate	(325.2) *
000-x903	Severe	(325.1) *

— y DISORDERS DUE TO UNDETERMINED CAUSE

000-y90	Mental deficiency, idiopathic	(325.5) *
000-y901	Mild	(325.3) *
000-y902	Moderate	(325.2) *
000-y903	Severe	(325.1) *

DISORDERS OF PSYCHOGENIC ORIGIN OR WITHOUT CLEARLY DEFINED PHYSICAL CAUSE OR STRUCTURAL CHANGE IN THE BRAIN

PSYCHOTIC DISORDERS

— 7 DISORDERS DUE TO DISTURBANCE OF METABOLISM, GROWTH, NUTRITION OR ENDOCRINE FUNCTION

000-796	Involutional psychotic reaction	(302)
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— X DISORDERS OF PSYCHOGENIC ORIGIN OR WITHOUT CLEARLY DEFINED TANGIBLE CAUSE OR STRUCTURAL CHANGE

000-x10	Affective reactions	(301.2)
000-x11	Manic depressive reaction, manic type	(301.0)
000-x12	Manic depressive reaction, depressive type	(301.1)
000-x13	Manic depressive reaction, other	(301.2)
000-x14	Psychotic depressive reaction	(309.0) *
000-x20	Schizophrenic reactions	(300.7) *
000-x21	Schizophrenic reaction, simple type	(300.0)
000-x22	Schizophrenic reaction, hebephrenic type	(300.1)
000-x23	Schizophrenic reaction, catatonic type	(300.2)
000-x24	Schizophrenic reaction, paranoid type	(300.3)
000-x25	Schizophrenic reaction, acute undifferentiated type	(300.4)
000-x26	Schizophrenic reaction, chronic undifferentiated type	(300.7)
000-x27	Schizophrenic reaction, schizo-affective type	(300.6)

^a Include intelligence quotient (I. Q.) in the diagnosis.

MENTAL DISORDERS

000-x28	Schizophrenic reaction, childhood type	(300.8) *
000-x29	Schizophrenic reaction, residual type	(300.5)
000-x30	Paranoid reactions	(303)
000-x31	Paranoia	(303)
000-x32	Paranoid state	(303)
000-xy0	Psychotic reaction without clearly defined structural change, other than above	(309.1) *

PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDERS

—55 DISORDERS DUE TO DISTURBANCE OF INNERVATION OR OF PSYCHIC CONTROL

001-580	Psychophysiologic skin reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.3) *
002-580	Psychophysiologic musculoskeletal reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.4)
003-580	Psychophysiologic respiratory reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.0)
004-580	Psychophysiologic cardiovascular reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(315.2) *
005-580	Psychophysiologic hemic and lymphatic reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.5)
006-580	Psychophysiologic gastrointestinal reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(316.3) *
007-580	Psychophysiologic genito-urinary reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.1) *
008-580	Psychophysiologic endocrine reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(317.5)
009-580	Psychophysiologic nervous system reaction. (<i>Indicate manifestation by Supplementary Term</i>)	(318.3) *
00x-580	Psychophysiologic reaction of organs of special sense. (<i>Indicate manifestation by Supplementary Term</i>)	(317.5)

PSYCHONEUROTIC DISORDERS

—X DISORDERS OF PSYCHOGENIC ORIGIN OR WITHOUT CLEARLY DEFINED TANGIBLE CAUSE OR STRUCTURAL CHANGE

000-x00	Psychoneurotic reactions	(318.5) *
000-x01	Anxiety reaction	(310)
000-x02	Dissociative reaction	(311)
000-x03	Conversion reaction	(311)
000-x04	Phobic reaction	(312)
000-x05	Obsessive compulsive reaction	(313)
000-x06	Depressive reaction	(314)
000-xy0	Psychoneurotic reaction, other	(318.5) *

PERSONALITY DISORDERS

—X DISORDERS OF PSYCHOGENIC ORIGIN OR WITHOUT CLEARLY DEFINED
TANGIBLE CAUSE OR STRUCTURAL CHANGE

000-x40	Personality pattern disturbance	(320.7) *
000-x41	Inadequate personality	(320.3)
000-x42	Schizoid personality	(320.0)
000-x43	Cyclothymic personality	(320.2)
000-x44	Paranoid personality	(320.1)
000-x50	Personality trait disturbance	(321.5) *
000-x51	Emotionally unstable personality	(321.0)
000-x52	Passive-aggressive personality	(321.1) *
000-x53	Compulsive personality	(321.5)
000-x5y	Personality trait disturbance, other	(321.5) *
000-x60	Sociopathic personality disturbance	(320.7) *
000-x61	Antisocial reaction	(320.4)
000-x62	Dyssocial reaction	(320.5)
000-x63	Sexual deviation. <i>Specify Supplementary Term</i>	(320.6)
000-x64	Addiction	
000-x641	Alcoholism	(322.1)
000-x642	Drug addiction	(323)
000-x70	Special symptom reactions	(321.4) *
000-x71	Learning disturbance	(326.0) *
000-x72	Speech disturbance	(326.2) *
000-x73	Enuresis	(321.3)
000-x74	Somnambulism	(321.4)
000-x7y	Other	(321.4) *

TRANSIENT SITUATIONAL PERSONALITY DISORDERS

000-x80	Transient situational personality disturbance	(326.4) *
000-x81	Gross stress reaction	(326.3) *
000-x82	Adult situational reaction	(326.6) *
000-x83	Adjustment reaction of infancy	(324.0) *
000-x84	Adjustment reaction of childhood	(324.1) *
000-x841	Habit disturbance	(324.1) *
000-x842	Conduct disturbance	(324.1) *
000-x843	Neurotic traits	(324.1) *
000-x85	Adjustment reaction of adolescence	(324.2) *
000-x86	Adjustment reaction of late life	(326.5) *

NONDIAGNOSTIC TERMS FOR HOSPITAL RECORD

011-332	Alcoholic intoxication (simple drunkenness)	(322.0)
y00-y01	Boarder	(Y09)*
y00-yyy	Dead on admission	(795.5)
y00-y00	Diagnosis deferred. <i>Change as many of first three digits as possible, to indicate site</i>	(795.5)
y00-000	Disease none. <i>Change first digit to indicate suspected system if any</i>	(793.2)*
y00-002	Examination only. <i>Change first three digits as needed</i>	(Y00.0)
y00-004	Experiment only. <i>Change first three digits as needed</i>	(Y09)
y00-005	Malingerer	(795.1)
y00-001	Observation. <i>Change first three digits as needed</i>	(793.2)*
y00-003	Tests only. <i>Change first three digits as needed</i>	(Y00.3)*

SECTION II A

INTRODUCTION TO THE REVISED NOMENCLATURE

This revision of psychiatric nomenclature attempts to provide a classification system consistent with the concepts of modern psychiatry and neurology. It recognizes the present day descriptive nature of all psychiatric diagnoses, and attempts to make possible the gathering of data for future clarification of ideas concerning etiology, pathology, prognosis, and treatment in mental disorders. It attempts to provide for inclusion of new ideas and advances yet to be made without radical revision of the system of nomenclature.

This nomenclature limits itself to the classification of the disturbances of mental functioning. It does not include neurologic diagnoses or diagnoses of intracranial pathology, *per se*. Such conditions should be diagnosed separately, whether or not a mental disturbance is associated with them. When an intracranial lesion is accompanied by a mental disorder, it is the mental disorder which is diagnosed in this present classification. Provision is made for contributory etiological factors to be stated as a part of the diagnosis, or as an additional diagnosis, as necessary (see Section III).

This diagnostic scheme employs the term "disorder" generically to designate a group of related psychiatric syndromes. Insofar as is possible, each group is further divided into more specific psychiatric conditions termed "reactions." The code numbers are assigned in accordance with the overall plan of the Standard Nomenclature of Diseases and Operations, a system fully explained in that publication.

All mental disorders are divided into two major groups:

- (1) those in which there is disturbance of mental function resulting from, or precipitated by, a primary impairment of the function of the brain, generally due to diffuse impairment of brain tissue; and
- (2) those which are the result of a more general difficulty in adaptation of the individual, and in which any associated brain function disturbance is secondary to the psychiatric disorder.

Perhaps the greatest change in this revision from previous listings lies in the handling of the disorders with known organic etiological factors. In these disorders [Group (1)] the psychiatric picture is characterized by impairment of intellectual functions, including memory, orientation, and

judgment, and by shallowness and lability of affect. This is a basic condition, and may be mild, moderate, or severe. It may be, and more often than not is, the *only* mental disturbance present, or it may be associated with additional disturbances which in this nomenclature are descriptively classified as "psychotic," "neurotic," or "behavioral" reactions (see Qualifying Phrases). These associated reactions are not necessarily related in severity to the degree of the organic brain syndrome, and are as much determined by inherent personality patterns, the social setting, and the stresses of interpersonal relations as by the precipitating organic impairment. For this reason, these associated reactions are to be looked upon as being released by the organic brain syndrome and superimposed upon it. The organic brain syndrome thereupon becomes the proper focus of diagnosis; associated reactions should be specified, when necessary, by adding to the diagnosis a qualifying phrase describing the manifestation: .x1 with psychotic reaction, .x2 with neurotic reaction, or .x3 with behavioral reaction. It is anticipated that the majority of organic disorders will require no qualifying phrase (see Qualifying Phrases).

When the organic brain syndrome is produced by prenatal or natal factors or in the formative years of infancy and childhood, the disturbance in intellectual development and learning ability may be prominent. Such disturbances, formerly diagnosed "Mental deficiency, secondary," are here listed under the chronic brain syndromes, where they seem more properly to belong. In these cases, when it is desired to stress the disorder of intelligence as the primary clinical problem, the diagnosis may be qualified with the phrase, .x4 with Mental deficiency, .x41 mild, .x42 moderate, or .x43 severe, and the current intelligence quotient will be included in the diagnosis. This categorization relegates the defect of intelligence to the sphere of symptomatology, rather than recognizing it as a primary mental disturbance.

An unsuccessful attempt was made to find a substitute for the long used term "mental deficiency." Mental deficiency is a legal term, comparable to the term "insanity," it has little meaning in clinical psychiatry. The term has been defined by law in England, and in some parts of the United States. The same objection is raised to the terms "idiot," "imbecile," and "moron." They have the further fault of being based upon psychological testing alone. In the borderline areas of each term, groupings vary with the immediate condition of the patient, as well as with the skill and training of the examiner. These last named terms have been eliminated.

It was necessary to retain a term for those cases presenting clinically primarily a disturbance of intellect, with no recognizable organic brain

impairment prenatally, at birth, or in childhood. Since no adequate substitute could be found, the title, "Mental Deficiency" was retained for this group. Degree is indicated by the terms "mild," "moderate," or "severe." No I.Q. limit has been set for these qualifying terms (see Section II B), as it is believed that such arbitrary usage of a variable measure is not justifiable in clinical work. Authorities in this field have stated that persons classified under the older groupings of idiot and imbecile (in this classification both are included under "severe") always show postmortem evidence of chronic brain disorder. It would then appear that a primary diagnosis of Mental deficiency, severe, is inaccurate.

The Schizophrenic reactions have been increased in number and type to allow more detailed diagnosis. The Manic depressive reactions have been reduced in number, and, with a Psychotic depressive reaction, have been grouped into the "Affective reactions."

The "psychosomatic" disorders have been given a separate category to allow more accurate accumulation of data concerning them. The generic term, "Psychophysiologic Autonomic and Visceral Disorders," has been selected for this group because it seems to express best the interplay of psychic and somatic factors involved in these disturbances.

The Psychoneurotic Disorders have been classified on the basis of their psychopathology as it is generally understood today. The titles for Personality Disorders and Transient Situational Disorders have been elaborated and expanded.

Attention is called to the fact that the Section on Diseases of the Psychobiologic Unit is only one section of the Standard Nomenclature of Diseases and Operations; adequate use of any one section requires knowledge and use of the entire Standard Nomenclature of Diseases and Operations.

More detailed instructions concerning the use of diagnostic terms applied to Disorders of the Psychobiologic Unit are to be found in the section which follows.

SECTION II B

DEFINITION OF TERMS

QUALIFYING PHRASES

The basic division in this nomenclature is into those mental disorders associated with organic brain disturbance, and those occurring without such primary disturbance of brain function, and *not* into psychoses, psychoneuroses, and personality disorders. Other categorizations are secondary to the basic division.

This nomenclature permits the modification of any of the primary psychiatric diagnoses by the qualifying phrases, .x1 with psychotic reaction, .x2 with neurotic reaction, and .x3 with behavioral reaction. These are intended to describe any major alteration of the clinical picture of a diagnosed condition which may appear when further mental symptoms are superimposed on the basic disorder.

Grouped together under Psychotic Disorders are: (1) affective disorders, characterized by severe mood disturbance, with associated alterations in thought and behavior, in consonance with the affect; (2) schizophrenic reactions, characterized by fundamental disturbances in reality relationships and concept formations, with associated affective, behavioral, and intellectual disturbances, marked by a tendency to retreat from reality, by regressive trends, by bizarre behavior, by disturbances in stream of thought, and by formation of delusions and hallucinations; (3) paranoid reactions, characterized by persistent delusions and other evidence of the projective mechanism.

From this grouping, a psychotic reaction may be defined as one in which the personality, in its struggle for adjustment to internal and external stresses, utilizes severe affective disturbance, profound autism and withdrawal from reality, and/or formation of delusions or hallucinations. The qualifying phrase, .x1 with psychotic reaction, may be used to amplify the diagnosis when, in the presence of another psychiatric disturbance, a *symptomatic* clinical picture appears which might be diagnosed under Psychotic Disorders in this nomenclature. Specific examples may be seen in severe depression occurring in Chronic Brain Syndrome associated with senile brain disease, or paranoid delusions accompanying Chronic Brain Syndrome, alcohol intoxication.

Grouped as Psychoneurotic Disorders are those disturbances in which "anxiety" is a chief characteristic, directly felt and expressed, or automatically controlled by such defenses as depression, conversion, dissociation, displacement, phobia formation, or repetitive thoughts and acts.

For this nomenclature, a psychoneurotic reaction may be defined as one in which the personality, in its struggle for adjustment to internal and external stresses, utilizes the mechanisms listed above to handle the anxiety created. The qualifying phrase, .x2 with neurotic reaction, may be used to amplify the diagnosis when, in the presence of another psychiatric disturbance, a *symptomatic* clinical picture appears which might be diagnosed under Psychoneurotic Disorders in this nomenclature. A specific example may be seen in an episode of acute anxiety occurring in a homosexual.

Grouped as Personality Disorders are those cases in which the personality utilizes primarily a pattern of action or behavior in its adjustment struggle, rather than symptoms in the mental, somatic, or emotional spheres.

For this nomenclature a behavioral reaction (personality disorder) may be defined as one in which the personality, in its struggle for adjustment to internal and external stresses, utilizes primarily a pattern of action or behavior. The qualifying phrase, .x3 with behavioral reaction, may be used to amplify the diagnosis when, in the presence of another psychiatric disturbance, a *symptomatic* clinical picture appears which might be diagnosed Personality Disorder in this nomenclature. The changes in behavior, sufficiently gross to require diagnostic recognition, occurring in many of the chronic brain syndromes (Alzheimer's, cerebral arteriosclerosis, epidemic encephalitis, trauma) are specific examples.

In general, it should be noted that the qualifying phrases are provided when needed to further define or describe the clinical picture. They are applied only when superimposed symptoms are so marked that they definitely color the clinical picture. Mild or transient superimposed symptoms will not justify the use of a qualifying phrase. It is anticipated that a diagnosis of chronic brain syndrome will be sufficient in itself under ordinary conditions, and qualifying phrases will be needed only for further refinement of the diagnosis.

A qualifying phrase will not be used where such use is redundant. In general, the phrase will be redundant when it repeats the major heading of any group of diagnoses, for example: .x1 is redundant when used with a diagnosis listed under Psychotic Disorders; .x2 is redundant when used with Psychoneurotic Disorders; .x3 is redundant when used with Personality Disorders (see Section III A, "Multiple psychiatric diagnoses" for incompatible diagnoses).

A qualifying phrase is not ordinarily needed with a diagnosis of acute brain syndrome but a qualifying phrase may be used when superimposed manifestations warrant such use by their significant modification of the clinical picture.

DISORDERS CAUSED BY OR ASSOCIATED WITH IMPAIRMENT OF BRAIN TISSUE FUNCTION

These disorders are all characterized by a basic syndrome consisting of:

1. Impairment of orientation
2. Impairment of memory
3. Impairment of all intellectual functions (comprehension, calculation, knowledge, learning, etc.)
4. Impairment of judgment
5. Lability and shallowness of affect

This syndrome of organic brain disorder is a basic mental condition characteristic of diffuse impairment of brain tissue function from any cause. It may be mild, moderate, or severe, but most of the basic symptoms of the syndrome are generally present to a similar degree in any one patient at any one time. The severity of this basic syndrome is generally parallel to the severity of the impairment of brain tissue function.

This syndrome may be the only mental disturbance present or it may be associated with psychotic manifestations, neurotic manifestations, or behavioral disturbance. These associated reactions are not necessarily related in severity to the degree of the organic brain disorder or to the degree of brain damage; they are determined by inherent personality patterns, current emotional conflicts, the immediate environmental situation, and the setting of interpersonal relations, as well as by the precipitating organic disorder. These associated reactions are to be looked upon as being released by the organic brain disorder and superimposed upon it. Since personality function depends greatly upon the integrity of brain function, various changes in personality reaction are to be expected with organic brain disorders. When these associated reactions are present to a significant degree, they are recognized by the addition of one of the qualifying statements listed (see Qualifying Phrases).

The organic brain disorders are separated into acute and chronic, because of the marked differences between these two groups in regard to prognosis, treatment, and general course of illness. The terms, "acute" and "chronic," refer primarily to the reversibility of brain pathology and its accompanying organic brain syndrome; and not to the etiology, onset, or duration of the illness. Since the same etiology may produce either temporary or permanent brain damage, a brain disorder which appears reversible, hence acute, at its beginning, may prove later to have left permanent damage and a persistent organic brain syndrome, which will then be diagnosed as chronic.

ACUTE BRAIN DISORDERS

These are the organic brain syndromes from which the patient recovers. They are the result of temporary, reversible, diffuse impairment of brain tissue function such as is present in acute alcoholic intoxication or "acute delirium." The basic disturbance of the sensorium may release other disturbances such as hallucinations, poorly organized, transient delusions, and behavior disturbances of varying degree. While a qualifying phrase may not ordinarily be needed with any diagnosis in this group, a qualifying phrase may be used when superimposed manifestations warrant such use by their severe modifications of the clinical picture.

These disorders are subclassified according to the cause of the impairment of brain tissue function.

009-100 Acute Brain Syndrome associated with intracranial infection. *Specify infection*

Here are to be classified those conditions due primarily to intracranial infection, such as encephalitis, epidemic and other, meningitis of all causes, and brain abscess, which appear to be temporary and reversible.

000-100 Acute Brain Syndrome associated with systemic infection. *Specify infection*

Here are to be classified those temporary, recoverable mental disturbances directly resulting from severe general systemic infections. Among the more common systemic infections producing such a reaction are pneumonia, typhoid fever, and acute rheumatic fever. Care must be taken to distinguish these reactions from other disorders, particularly manic depressive and schizophrenic reactions, which may be made manifest by even a mild attack of infectious disease.

000-3.. Acute Brain Syndrome, drug or poison intoxication. *Specify drug or poison*

Drug: This category is intended for the inclusion of acute reversible brain syndromes due to drugs generally used in medical practices, such as bromides, barbiturates, opiates, or hormonal and similarly acting principles.

Poison: Here should be classified the acute brain syndromes associated with chemical action on the brain by substances not ordinarily used in

medical practice, such as lead, other metals, gas, and other sources of intoxication (except alcohol) as listed in Category Three of the Standard Nomenclature of Diseases and Operations.

000-3312 Acute Brain Syndrome, alcohol intoxication

This group is given separate status from other intoxications for statistical purposes. Here will be classified the acute recoverable brain syndromes attributable to alcohol, notably delirium tremens and acute alcoholic hallucinosis. When simple alcoholic intoxication produces an acute brain syndrome requiring diagnosis, it will be classified here. Habitual alcoholism without brain syndrome should be diagnosed under Addiction. "Pathological Intoxication" may cause difficulty in proper diagnosis. When, without apparent preexisting mental disorder, there is a marked behavioral or psychotic reaction with an acute brain syndrome after minimal alcoholic intake, the case will be classified here. When a preexisting psychotic, psychoneurotic, or personality disorder is made more manifest after minimal alcoholic intake, the case will be classified under the diagnosis of the underlying condition.

000-4.. Acute Brain Syndrome associated with trauma. *Specify trauma*

Here are to be classified those cases of acute brain syndrome developing immediately after head injury produced by external trauma of a gross physical nature, including surgery. Mental disturbances following injuries to other parts of the body are not to be classified here. Brain syndromes in which head trauma acts as a contributing or precipitating cause should be diagnosed under the proper etiological heading and not included in this group. This category does not include the chronic organic results of head injury.

000-5.. Acute Brain Syndrome associated with circulatory disturbance. (*Indicate cardiovascular disease as additional diagnosis*)

Here are to be classified those acute recoverable brain syndromes occurring as a result of such circulatory disturbances as cerebral embolism, arterial hypertension, cardio-renal disease and especially cardiac disease, particularly in decompensation. Acute fluctuations in the chronic progressive course of circulatory disturbances such as cerebral arteriosclerosis will not be diagnosed here, but will be placed under the listing of Chronic Brain Syndrome.

000-550 Acute Brain Syndrome associated with convulsive disorder. (*Indicate manifestation by Supplementary Term*)

Under this heading will be classified only cases which show acute brain syndrome in connection with "idiopathic" epilepsy. Most common disturbance of this group is the epileptic clouded state occurring in those epileptics who develop, preceding or following convulsive attacks, or as equivalents of attacks, dazed reactions with deep confusion, bewilderment, and anxiety or excitement, with hallucinations, fears and violent outbreaks. Those cases in which the convulsive manifestations are symptomatic of other disease are to be classified under the headings for such other disease.

000-7.. Acute Brain Syndrome associated with metabolic disturbance. *Specify*

Here will be classified those acute reversible brain syndromes resulting from metabolic disturbance, such as uremia, diabetes, hyperthyroidism, vitamin deficiency, and so forth.

000-8.. Acute Brain Syndrome associated with intracranial neoplasm. (*Indicate neoplasm as additional diagnosis*)

Here will be classified those acute reversible brain syndromes resulting from intracranial neoplasms, whether the neoplasm be primary or secondary. Reversibility of the pathological process underlying the acute brain syndrome (pressure, edema, etc.) is the basis of differentiation between acute and chronic syndromes of this category.

000-900 Acute Brain Syndrome with disease of unknown or uncertain cause. (*Indicate disease as additional diagnosis*)

Here will be classified those acute reversible brain syndromes resulting from diseases of unknown cause, such as multiple sclerosis. This diagnosis progressive disturbances of brain function.

This category differs from the one that follows, in that here the disease causing the acute brain syndrome is recognized and diagnosed although the etiology of the disease is unknown.

000-xx0 Acute Brain Syndrome of unknown cause

This category is intended for those acute brain syndromes whose cause cannot be recognized. It may also be used for acute brain syndromes of

known cause, not elsewhere classifiable, in which case the causative disease will be separately diagnosed. Record librarians and statisticians may use this category for incomplete diagnoses.

CHRONIC BRAIN DISORDERS

The chronic organic brain syndromes result from relatively permanent, more or less irreversible, diffuse impairment of cerebral tissue function. While the underlying pathological process may partially subside, or respond to specific treatment, as in syphilis, there remains always a certain irreducible minimum of brain tissue destruction which cannot be reversed, even though the loss of function may be almost imperceptible clinically. The chronic brain syndrome may become milder, vary in degree, or progress, but some disturbance of memory, judgment, orientation, comprehension and affect persists permanently.

Other mental disturbances of psychotic, neurotic, or behavioral type may be superimposed on the chronic brain syndrome; when clinically significant, these will be recognized by addition of the appropriate qualifying phrase to the diagnosis (see Qualifying Phrases). When the chronic organic disorder is present during infancy and childhood, and results in significantly disturbed intellectual development, this may be recognized by addition of the qualifying phrase, *x4* with Mental deficiency.

These disorders are classified according to the cause of the impairment of brain function. Some of the diagnostic categories are identical with those of the acute brain syndromes; the differentiation is based on the permanent impairment of brain function in the chronic group.

009-0.., 009-016, 009-071, 009-052, 009-050 Chronic Brain Syndrome associated with congenital cranial anomaly, congenital spastic paraplegia, Mongolism, prenatal maternal infectious disease, birth trauma

These categories are provided for the group of mental disturbances formerly diagnosed as secondary mental deficiency. Clinically, a general developmental defect of mentation is superimposed on the chronic brain syndrome, and when prominent may require the addition of the qualifying phrase *x4* Mental deficiency. The degree of defective intelligence will be specified as *mild, moderate, or severe*, and the current IQ rating will be added to the diagnosis (see Mental deficiency).

009-147.0 Chronic Brain Syndrome associated with central nervous system syphilis (*Meningoencephalitic*)

Here will be classified the cases formerly diagnosed as general paresis. In addition to the organic brain syndrome, these cases show physical signs and symptoms of parenchymatous syphilis of the nervous system, and usually positive serology, including the paretic gold curve. The psychotic reaction, when such occurs, may simulate one of the "functional" psychoses but is to be classified here, with the Qualifying Phrase, *x1* with psychotic reaction.

004-147.0 Chronic Brain Syndrome associated with central nervous system syphilis (*Meningovascular*)

The mental disturbance is that of the chronic brain syndrome, and is indistinguishable from the mental disturbance of Meningoencephalitic syphilis. A differential diagnosis may be possible in those cases in which the history, signs, and symptoms, including serology, suggest a primary and predominating involvement of the meninges and blood vessels rather than of the parenchyma of the nervous system. Suggestive of this type of syphilis (cerebral) rather than general paresis, are: comparatively early onset after infection, sudden onset of mental disturbance, focal signs, particularly cranial nerve palsy, apoplectiform seizures, very high spinal fluid cell count, positive blood and spinal fluid serology, and prompt response to general systemic antisyphilitic treatment. Cases showing mental disturbances on a basis of cerebral lesions from syphilitic vascular disease will be classified here rather than under the heading Chronic Brain Syndrome associated with disturbance of circulation.

0y0-147.0 Chronic Brain Syndrome associated with other central nervous system syphilis

Here will be classified the comparatively infrequent cases of chronic brain syndrome associated with syphilis of the central nervous system not covered in the previous groups, including intracranial gumma.

009-1...0 Chronic Brain Syndrome associated with intracranial infection other than syphilis. *Specify infection*

Here are to be classified chronic brain syndromes associated with intracranial infection other than syphilis. Many of these disorders will have been diagnosed acute brain syndrome early in the course of the illness. The case

should be categorized here when it becomes apparent that there is diffuse, permanent damage to brain function. In addition to the primary diagnosis, many of these cases will require the use of a qualifying phrase; for example, encephalitides occurring in adolescence often develop a chronic brain syndrome with behavioral reaction.

**009-300 Chronic Brain Syndrome associated with intoxication.
*Specify***

In these two groups will be classified those chronic, organic reactions which remain permanently following toxic insult to the brain by such agents as lead, arsenic, mercury, carbon monoxide, illuminating gas, miscellaneous drugs and alcohol.

Chronic Brain Syndrome, alcohol intoxication, includes all degrees of permanent brain damage resulting from the use of alcohol, ranging from very mild up to and including severe. The latter may manifest itself by the type of chronic delirium formerly diagnosed as Korsakoff's psychosis. Under such conditions the psychosis will be recognized by the proper qualifying phrase.

Many of these reactions are ushered in with an acute brain reaction to the intoxicant. The case will be placed in the chronic category when it becomes apparent that permanent, irreversible damage to the brain has occurred.

009-400 Chronic Brain Syndrome associated with brain trauma

Here will be classified the post-traumatic chronic brain disorders, which produce impairment of mental function. Permanent brain damage which produces only neurologic changes because of its focal nature, without significant changes in the areas of sensorium and affect, will not be classified here. Generally, trauma producing a chronic brain syndrome would have to be diffuse and would have to leave permanent brain damage. Post-traumatic personality disorder associated with chronic brain syndrome will be placed in this group with the appropriate qualifying phrase.

If the brain injury occurs in early life, it may manifest itself primarily in a developmental defect of intelligence. Such cases will be qualified by the phrase .x4 Mental deficiency, and the current I.Q. included in the diagnosis.

A head injury may usher in, or expedite the course of, a chronic brain disease, especially cerebral arteriosclerosis. The differential diagnosis in such cases may be extremely difficult. If the case history shows symptoms of circulatory disturbance, particularly arteriosclerosis, before the injury, and

the physical examination confirms the presence of arteriosclerosis, the case will be classified under Chronic Brain Syndrome associated with cerebral arteriosclerosis.

009-516 Chronic Brain Syndrome associated with cerebral arteriosclerosis

Here are to be classified those chronic, progressive, mental disturbances occurring in connection with cerebral arteriosclerosis. Clinical differentiation of the chronic brain syndrome associated with cerebral arteriosclerosis from that associated with senile sclerosis and presenile sclerosis may be impossible. Both underlying pathological changes may be present simultaneously. The age, history, and careful survey of the symptoms may assist in determining the predominate pathology. Commonly, the organic brain syndrome will be the only mental disturbance present. When significant psychotic, neurotic, or behavioral reactions are superimposed, the diagnosis will be qualified by the appropriate phrases (see Qualifying Phrases).

009-5.. Chronic Brain Syndrome associated with circulatory disturbance other than cerebral arteriosclerosis. *Specify*

Here are to be classified those chronic organic mental disturbances occurring in connection with circulatory disturbance other than cerebral arteriosclerosis, such as cerebral embolism, cerebral hemorrhages, arterial hypertension, and other chronic cardiovascular disease. Differentiation from the acute brain syndrome of like cause must be made on the irreversibility of the underlying brain damage. The circulatory disturbance will be specified.

009-550 Chronic Brain Syndrome associated with convulsive disorder

Here will be included only those cases which show chronic brain syndrome in connection with "idiopathic" epilepsy. Most of the etiological agents underlying chronic brain syndromes can and do cause convulsions. Convulsions are particularly common in the presence of syphilis, intoxication, trauma, cerebral arteriosclerosis, and intracranial neoplasm. When the convulsions are symptomatic of such other etiological agents, the chronic brain syndrome will be classified under the headings for those disturbances rather than here.

The most common type of case to be categorized here is seen in those epileptics who show a gradual development of mental dullness, slowness of associative thinking, impairment of memory and other intellectual functions, as well as apathy. Qualifying phrases are to be used when indicated.

009-79x Chronic Brain Syndrome associated with senile brain disease

This category is designed for the classification of organic brain syndrome occurring with senile brain disease, whether this be mild, moderate or severe. These cases vary from mild organic brain syndrome with self-centering of interest, difficulty in assimilating new experiences, and "childish" emotionality, up to and including those so severely affected by senile brain disease as to require institutional care. Deterioration may be minimal or it may progress to a state of vegetative existence, with or without superimposed psychotic, neurotic, or behavioral reactions (see Qualifying Phrases).

009-700 Chronic Brain Syndrome associated with other disturbance of metabolism, growth or nutrition (includes presenile, glandular, pellagra, familial amaurosis). *Specify*

This category includes the chronic brain syndromes associated with disorders formerly classified separately, such as Alzheimer's disease, endocrine disorders, pellagra, and others of a similar nature.

In Alzheimer's disease, the brain pathology is characteristic. Clinically, the disorder may be suspected in severe progressive brain syndromes occurring at a comparatively early age period, as in the forties. The degree of brain atrophy, which is generalized, is usually severe, and can be demonstrated by pneumoencephalogram.

Chronic brain syndromes associated with complications of diabetes (not due to accompanying cerebral arteriosclerosis), disorders of the thyroid, pituitary, adrenals, and other disorders of metabolism, are to be classified under this heading. The majority of organic reactions occurring on a glandular or metabolic basis are acute and recoverable. They will be classified here only when there is evidence of permanent impairment of brain function.

Chronic brain syndromes associated with pellagra or other avitaminosis are included in this group. Cases developing pellagra or avitaminosis during the course of some other psychiatric disorder will not be classified under this heading, unless permanent brain damage occurs as a result of the avitaminosis.

009-8.. Chronic Brain Syndrome associated with intracranial neoplasm. *Specify neoplasm*

This category includes the chronic brain syndromes resulting from intracranial neoplasms, whether the neoplasm be primary or secondary. This category does not include reactions to new growths elsewhere in the body than in the cranium. Differentiation from the acute brain syndrome of like cause is made by the presence of irreversible brain damage.

009-900 Chronic Brain Syndrome associated with diseases of unknown or uncertain cause (includes multiple sclerosis, Huntington's chorea, Pick's disease and other diseases of a familial or hereditary nature). *Indicate disease by additional diagnosis*

Here will be classified those chronic brain syndromes associated with irreversible disruption of brain function by such disorders of unknown etiology as multiple sclerosis, Pick's disease, and Huntington's chorea.

This category differs from the one that follows (009-xx0), in that here the disease causing the chronic brain syndrome is recognized and diagnosed, although the etiology of the disease is unknown.

009-xx0 Chronic Brain Syndrome of unknown cause

This category is intended for those chronic brain syndromes whose cause cannot be recognized. It may also be used for chronic brain syndrome of known cause, not elsewhere classifiable, in which case the causative disease will be specified. Record librarians and statisticians may use this category for incomplete diagnoses.

MENTAL DEFICIENCY

000-x90 and 000-y90 Mental deficiency

Here will be classified those cases presenting primarily a defect of intelligence existing since birth, without demonstrated organic brain disease or known prenatal cause. This group will include only those cases formerly known as familial or "idiopathic" mental deficiencies. The degree of intelligence defect will be specified as *mild*, *moderate*, or *severe*, and the current I.Q. rating, with the name of the test used, will be added to the diagnosis. In general, *mild* refers to functional (vocational) impairment, as would be ex-

pected with I.Q.'s of approximately 70 to 85; *moderate* is used for functional impairment requiring special training and guidance, such as would be expected with I.Q.'s of about 50-70; *severe* refers to the functional impairment requiring custodial or complete protective care, as would be expected with I.Q.'s below 50. The degree of defect is estimated from other factors than merely psychological test scores, namely, consideration of cultural, physical and emotional determinants, as well as school, vocational and social effectiveness. The diagnosis may be modified by the appropriate qualifying phrase, when, in addition to the intellectual defects, there are significant psychotic, neurotic, or behavioral reactions.

DISORDERS OF PSYCHOGENIC ORIGIN OR WITHOUT CLEARLY DEFINED PHYSICAL CAUSE OR STRUCTURAL CHANGE IN THE BRAIN

PSYCHOTIC DISORDERS

These disorders are characterized by a varying degree of personality disintegration and failure to test and evaluate correctly external reality in various spheres. In addition, individuals with such disorders fail in their ability to relate themselves effectively to other people or to their own work.

000-796 Involutional psychotic reaction

In this category may be included psychotic reactions characterized most commonly by depression occurring in the involutional period, without previous history of manic depressive reaction, and usually in individuals of compulsive personality type. The reaction tends to have a prolonged course and may be manifested by worry, intractable insomnia, guilt, anxiety, agitation, delusional ideas, and somatic concerns. Some cases are characterized chiefly by depression and others chiefly by paranoid ideas. Often there are somatic preoccupations to a delusional degree.

Differentiation may be most difficult from other psychotic reactions with onset in the involutional period; reactions will not be included in this category merely because of their occurrence in this age group.

000-x10 AFFECTIVE REACTIONS

These psychotic reactions are characterized by a primary, severe, disorder of mood, with resultant disturbance of thought and behavior, in consonance with the affect.

000-x11—000-x13 Manic depressive reactions

These groups comprise the psychotic reactions which fundamentally are marked by severe mood swings, and a tendency to remission and recurrence. Various accessory symptoms such as illusions, delusions, and hallucinations may be added to the fundamental affective alteration.

Manic depressive reaction is synonymous with the term manic depressive psychosis. The reaction will be further classified into the appropriate one of the following types: manic, depressed, or other.

000-x11 Manic depressive reaction, manic type

This group is characterized by elation or irritability, with overtalkativeness, flight of ideas, and increased motor activity. Transitory, often momentary, episodes of depression may occur, but will not change the classification from the manic type of reaction.

000-x12 Manic depressive reaction, depressed type

Here will be classified those cases with outstanding depression of mood and with mental and motor retardation and inhibition; in some cases there is much uneasiness and apprehension. Perplexity, stupor or agitation may be prominent symptoms, and may be added to the diagnosis as manifestations.

000-x13 Manic depressive reaction, other

Here will be classified only those cases with marked mixtures of the cardinal manifestations of the above two phases (mixed type), or those cases where continuous alternation of the two phases occur (circular type). Other specified varieties of manic depressive reaction (manic stupor or unproductive mania) will also be included here.

000-x14 Psychotic depressive reaction

These patients are severely depressed and manifest evidence of gross misinterpretation of reality, including, at times, delusions and hallucinations. This reaction differs from the manic depressive reaction, depressed type, principally in (1) absence of history of repeated depressions or of marked cyclothymic mood swings, (2) frequent presence of environmental precipitating factors. This diagnostic category will be used when a "reactive depression" is of such quality as to place it in the group of psychoses (see 000-x06 Depressive reaction).

000-x20 SCHIZOPHRENIC REACTIONS

This term is synonymous with the formerly used term dementia praecox. It represents a group of psychotic reactions characterized by fundamental disturbances in reality relationships and concept formations, with affective, behavioral, and intellectual disturbances in varying degrees and mixtures. The disorders are marked by strong tendency to retreat from reality, by emotional disharmony, unpredictable disturbances in stream of thought, regressive behavior, and in some, by a tendency to "deterioration." The predominant symptomatology will be the determining factor in classifying such patients into types.

000-x21 Schizophrenic reaction, simple type

This type of reaction is characterized chiefly by reduction in external attachments and interests and by impoverishment of human relationships. It often involves adjustment on a lower psychobiological level of functioning, usually accompanied by apathy and indifference but rarely by conspicuous delusions or hallucinations. The simple type of schizophrenic reaction characteristically manifests an increase in the severity of symptoms over long periods, usually with apparent mental deterioration, in contrast to the schizoid personality, in which there is little if any change.

000-x22 Schizophrenic reaction, hebephrenic type

These reactions are characterized by shallow, inappropriate affect, unpredictable giggling, silly behavior and mannerisms, delusions, often of a somatic nature, hallucinations, and regressive behavior.

000-x23 Schizophrenic reaction, catatonic type

These reactions are characterized by conspicuous motor behavior, exhibiting either marked generalized inhibition (stupor, mutism, negativism and waxy flexibility) or excessive motor activity and excitement. The individual may regress to a state of vegetation.

000-x24 Schizophrenic reaction, paranoid type

This type of reaction is characterized by autistic, unrealistic thinking, with mental content composed chiefly of delusions of persecution, and/or of grandeur, ideas of reference, and often hallucinations. It is often character-

ized by unpredictable behavior, with a fairly constant attitude of hostility and aggression. Excessive religiosity may be present with or without delusions of persecution. There may be an expansive delusional system of omnipotence, genius, or special ability. The systematized paranoid hypochondriacal states are included in this group.

000-x25 Schizophrenic reaction, acute undifferentiated type

This reaction includes cases exhibiting a wide variety of schizophrenic symptomatology, such as confusion of thinking and turmoil of emotion, manifested by perplexity, ideas of reference, fear and dream states, and dissociative phenomena. These symptoms appear acutely, often without apparent precipitating stress, but exhibiting historical evidence of prodromal symptoms. Very often the reaction is accompanied by a pronounced affective coloring of either excitement or depression. The symptoms often clear in a matter of weeks, although there is a tendency for them to recur. Cases usually are grouped here in the first, or an early, attack. If the reaction subsequently progresses, it ordinarily crystallizes into one of the other definable reaction types.

000-x26 Schizophrenic reaction, chronic undifferentiated type

The chronic schizophrenic reactions exhibit a mixed symptomatology, and when the reaction cannot be classified in any of the more clearly defined types, it will be placed in this group. Patients presenting definite schizophrenic thought, affect and behavior beyond that of the schizoid personality, but not classifiable as any other type of schizophrenic reaction, will also be placed in this group. This includes the so-called "latent," "incipient," and "pre-psychotic" schizophrenic reactions.

000-x27 Schizophrenic reaction, schizo-affective type

This category is intended for those cases showing significant admixtures of schizophrenic and affective reactions. The mental content may be predominantly schizophrenic, with pronounced elation or depression. Cases may show predominantly affective changes with schizophrenic-like thinking or bizarre behavior. The prepsychotic personality may be at variance, or inconsistent, with expectations based on the presenting psychotic symptomatology. On prolonged observation, such cases usually prove to be basically schizophrenic in nature.

000-x28 Schizophrenic reaction, childhood type

Here will be classified those schizophrenic reactions occurring before puberty. The clinical picture may differ from schizophrenic reactions occurring in other age periods because of the immaturity and plasticity of the patient at the time of onset of the reaction. Psychotic reactions in children, manifesting primarily autism, will be classified here. Special symptomatology may be added to the diagnosis as manifestations.

000-x29 Schizophrenic reaction, residual type

This term is to be applied to those patients who, after a definite psychotic, schizophrenic reaction, have improved sufficiently to be able to get along in the community, but who continue to show recognizable residual disturbance of thinking, affectivity, and/or behavior.

000-x30 PARANOID REACTIONS

In this group are to be classified those cases showing persistent delusions, generally persecutory or grandiose, ordinarily without hallucinations. The emotional responses and behavior are consistent with the ideas held. Intelligence is well preserved. This category does not include those reactions properly classifiable under Schizophrenic reaction, paranoid type.

000-x31 Paranoia

This type of psychotic disorder is extremely rare. It is characterized by an intricate, complex, and slowly developing paranoid system, often logically elaborated after a false interpretation of an actual occurrence. Frequently, the patient considers himself endowed with superior or unique ability. The paranoid system is particularly isolated from much of the normal stream of consciousness, without hallucinations and with relative intactness and preservation of the remainder of the personality, in spite of a chronic and prolonged course.

000-x32 Paranoid state

This type of paranoid disorder is characterized by paranoid delusions. It lacks the logical nature of systematization seen in paranoia; yet it does not manifest the bizarre fragmentation and deterioration of the schizophrenic reactions. It is likely to be of a relatively short duration, though it may be persistent and chronic.

**000-xy0 PSYCHOTIC REACTION WITHOUT CLEARLY DEFINED
STRUCTURAL CHANGE, OTHER THAN ABOVE**

This classification is introduced primarily for the use of librarians and statisticians in those instances where the diagnosis has been left incomplete, and is not classifiable. This diagnosis is not intended for mixed reactions, which should be classified according to the predominant reaction.

PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDERS

This term is used in preference to "psychosomatic disorders," since the latter term refers to a point of view on the discipline of medicine as a whole rather than to certain specified conditions. It is preferred to the term "somatization reactions," which term implies that these disorders are simply another form of psychoneurotic reaction. These disorders are here given a separate grouping between psychotic and psychoneurotic reactions, to allow more accurate accumulation of data concerning their etiology, course, and relation to other mental disorders.

These reactions represent the visceral expression of affect which may be thereby largely prevented from being conscious. The symptoms are due to a chronic and exaggerated state of the normal physiological expression of emotion, with the feeling, or subjective part, repressed. Such long continued visceral states may eventually lead to structural changes.

This group includes the so-called "organ neuroses." It also includes some of the cases formerly classified under a wide variety of diagnostic terms, such as "anxiety state," "cardiac neurosis," "gastric neurosis," and so forth. Differentiation is made from conversion reactions by (1) involvement of organs and viscera innervated by the autonomic nervous system, hence not under full voluntary control or perception; (2) failure to alleviate anxiety; (3) physiological rather than symbolic origin of symptoms; (4) frequent production of structural changes which may threaten life. Differentiation is made from anxiety reactions primarily by predominant, persistent involvement of a single organ system.

Each diagnosis of this type of reaction will be amplified with the specific symptomatic manifestations, e.g., anorexia, loss of weight, dysmenorrhea, hypertension, and so forth.

001-580 Psychophysiologic skin reaction

This category includes such skin reactions as neurodermatoses, pruritus, atopic dermatitis, hyperhydrosis, and so forth, in which emotional factors play a causative role.

002-580 Psychophysiologic musculoskeletal reaction

This category includes musculoskeletal disorders such as "psychogenic rheumatism," backache, muscle cramps, myalgias (to include some cases of cephalgia, tension headaches) in which emotional factors play a causative role. In this group, differentiation from conversion reactions is of prime importance and at times is extremely difficult.

003-580 Psychophysiologic respiratory reaction

This category includes cases of bronchial spasm, some hyperventilation syndromes, sighing respirations, hiccoughs, and so forth, in which emotional factors play a causative role.

004-580 Psychophysiologic cardiovascular reaction

This category includes such types of cardiovascular disorders as paroxysmal tachycardia, hypertension, vascular spasms, migraine, and so forth, in which emotional factors play a causative role.

005-580 Psychophysiologic hemic and lymphatic reaction

Here may be included any disturbances in the hemic and lymphatic system in which emotional factors are found to play a causative role.

006-580 Psychophysiologic gastrointestinal reaction

This category includes such specified types of gastrointestinal disorders as peptic-ulcer-like reaction, chronic gastritis, ulcerative or mucous colitis, constipation, hyperacidity, pylorospasm, "heartburn," "irritable colon," "anorexia nervosa," and so forth, in which emotional factors play a causative role.

007-580 Psychophysiologic genitourinary reaction

This category includes some types of menstrual disturbances, dysuria, and so forth, in which emotional factors play a causative role.

008-580 Psychophysiologic endocrine reaction

This category includes endocrine disorders in which emotional factors play a causative role. Specify endocrine disturbance.

009-580 Psychophysiologic nervous system reaction

This category includes psychophysiologic asthenic reaction, in which general fatigue is the predominating complaint. There may be associated visceral complaints. The term includes many cases formerly called "neurasthenia." In some instances, an asthenic reaction may represent a conversion reaction; if so, it will be so classified, with asthenia as a manifestation. In other instances it may be a manifestation of anxiety reaction and should be recorded as such.

Also included in this category are convulsive disorders not otherwise classifiable in which emotional factors play a causative role. Differentiation must be made from the convulsions of conversion reaction.

00x-580 Psychophysiologic reaction of organs of special sense

Here may be included any disturbances in the organs of special sense in which emotional factors are found to play a causative role and in which conversion reactions are excluded (see 000-x03).

PSYCHONEUROTIC DISORDERS

The chief characteristic of these disorders is "anxiety" which may be directly felt and expressed or which may be unconsciously and automatically controlled by the utilization of various psychological defense mechanisms (depression, conversion, displacement, etc.). In contrast to those with psychoses, patients with psychoneurotic disorders do not exhibit gross distortion or falsification of external reality (delusions, hallucinations, illusions) and they do not present gross disorganization of the personality. Longitudinal (lifelong) studies of individuals with such disorders usually present evidence of periodic or constant maladjustment of varying degree from early life. Special stress may bring about acute symptomatic expression of such disorders.

"Anxiety" in psychoneurotic disorders is a danger signal felt and perceived by the conscious portion of the personality. It is produced by a threat from within the personality (e.g., by supercharged repressed emotions, including

such aggressive impulses as hostility and resentment), with or without stimulation from such external situations as loss of love, loss of prestige, or threat of injury. The various ways in which the patient attempts to handle this anxiety results in the various types of reactions listed below.

In recording such reactions the terms "traumatic neurosis," or "traumatic reaction" will not be used; instead, the particular psychiatric reaction will be specified. Likewise, the term "mixed reaction" will not be used; instead, the predominant type of reaction will be recorded, qualified by reference to other types of reactions as part of the symptomatology.

000-x01 Anxiety reaction

In this kind of reaction the anxiety is diffuse and not restricted to definite situations or objects, as in the case of phobic reactions. It is not controlled by any specific psychological defense mechanism as in other psychoneurotic reactions. This reaction is characterized by anxious expectation and frequently associated with somatic symptomatology. The condition is to be differentiated from normal apprehensiveness or fear. The term is synonymous with the former term "anxiety state."

000-x02 Dissociative reaction

This reaction represents a type of gross personality disorganization, the basis of which is a neurotic disturbance, although the diffuse dissociation seen in some cases may occasionally appear psychotic. The personality disorganization may result in aimless running or "freezing." The repressed impulse giving rise to the anxiety may be discharged by, or deflected into, various symptomatic expressions, such as depersonalization, dissociated personality, stupor, fugue, amnesia, dream state, somnambulism, etc. The diagnosis will specify symptomatic manifestations.

These reactions must be differentiated from schizoid personality, from schizophrenic reaction, and from analogous symptoms in some other types of neurotic reactions. Formerly, this reaction has been classified as a type of "conversion hysteria."

000-x03 Conversion reaction

Instead of being experienced consciously (either diffusely or displaced, as in phobias) the impulse causing the anxiety is "converted" into functional symptoms in organs or parts of the body, usually those that are mainly under

voluntary control. The symptoms serve to lessen conscious (felt) anxiety and ordinarily are symbolic of the underlying mental conflict. Such reactions usually meet immediate needs of the patient and are, therefore, associated with more or less obvious "secondary gain." They are to be differentiated from psychophysiologic autonomic and visceral disorders. The term "conversion reaction" is synonymous with "conversion hysteria." Dissociative reactions are not included in this diagnosis.

In recording such reactions the symptomatic manifestations will be specified as anesthesia (anosmia, blindness, deafness), paralysis (paresis, aphonia, monoplegia, or hemiplegia), dyskinesis (tic, tremor, posturing, catalepsy).

000-x04 Phobic reaction

The anxiety of these patients becomes detached from a specific idea, object, or situation in the daily life and is displaced to some symbolic idea or situation in the form of a specific neurotic fear. The commonly observed forms of phobic reaction include fear of syphilis, dirt, closed places, high places, open places, animals, etc. The patient attempts to control his anxiety by avoiding the phobic object or situation.

In recording this diagnosis the manifestations will be indicated. The term is synonymous with the former term "phobia" and includes some of the cases formerly classified as "anxiety hysteria."

000-x05 Obsessive compulsive reaction

In this reaction the anxiety is associated with the persistence of unwanted ideas and of repetitive impulses to perform acts which may be considered morbid by the patient. The patient himself may regard his ideas and behavior as unreasonable, but nevertheless is compelled to carry out his rituals.

The diagnosis will specify the symptomatic expression of such reactions, as touching, counting, ceremonials, hand-washing, or recurring thoughts (accompanied often by a compulsion to repetitive action). This category includes many cases formerly classified as "psychasthenia."

000-x06 Depressive reaction

The anxiety in this reaction is allayed, and hence partially relieved, by depression and self-depreciation. The reaction is precipitated by a current situation, frequently by some loss sustained by the patient, and is often associated with a feeling of guilt for past failures or deeds. The degree of

the reaction in such cases is dependent upon the intensity of the patient's ambivalent feeling toward his loss (love, possession) as well as upon the realistic circumstances of the loss.

The term is synonymous with "reactive depression" and is to be differentiated from the corresponding psychotic reaction. In this differentiation, points to be considered are (1) life history of patient, with special reference to mood swings (suggestive of psychotic reaction), to the personality structure (neurotic or cyclothymic) and to precipitating environmental factors and (2) absence of malignant symptoms (hypochondriacal preoccupation, agitation, delusions, particularly somatic, hallucinations, severe guilt feelings, intractable insomnia, suicidal ruminations, severe psychomotor retardation, profound retardation of thought, stupor).

000-x0y Psychoneurotic reaction, other

Under this classification will come all reactions considered psychoneurotic and not elsewhere classified. (Psychoneurotic manic reactions, etc.) This category is designed also for the use of record librarians and statisticians dealing with incomplete diagnoses. It does not include "mixed" reactions, which are to be diagnosed according to the predominant reaction.

PERSONALITY DISORDERS

These disorders are characterized by developmental defects or pathological trends in the personality structure, with minimal subjective anxiety, and little or no sense of distress. In most instances, the disorder is manifested by a lifelong pattern of action or behavior, rather than by mental or emotional symptoms. Occasionally, organic diseases of the brain (epidemic encephalitis, head injury, Alzheimer's disease, etc.) will produce clinical pictures resembling a personality disorder. In such instances, the condition is properly diagnosed as a Chronic Brain Syndrome (of appropriate origin) with behavioral reaction.

The personality disorders are divided into three main groups with one additional grouping for flexibility in diagnosis (Special symptom reactions). Although the groupings are largely descriptive, the division has been made partially on the basis of the dynamics of personality development. The Personality pattern disturbances are considered deep seated disturbances, with little room for regression. Personality trait disturbances and Socio-

pathic personality disturbances under stress may at times regress to a lower level of personality organization and function without development of psychosis.

000-x40 PERSONALITY PATTERN DISTURBANCE

These are more or less cardinal personality types, which can rarely if ever be altered in their inherent structures by any form of therapy. Their functioning may be improved by prolonged therapy, but basic change is seldom accomplished. In some, "constitutional" features are marked and obvious. The depth of the psychopathology here allows these individuals little room to maneuver under conditions of stress, except into actual psychosis.

000-x41 Inadequate personality

Such individuals are characterized by inadequate response to intellectual, emotional, social, and physical demands. They are neither physically nor mentally grossly deficient on examination, but they do show inadaptability, ineptness, poor judgment, lack of physical and emotional stamina, and social incompatibility.

000-x42 Schizoid personality

Inherent traits in such personalities are (1) avoidance of close relations with others, (2) inability to express directly hostility or even ordinary aggressive feelings, and (3) autistic thinking. These qualities result early in coldness, aloofness, emotional detachment, fearfulness, avoidance of competition, and day dreams revolving around the need for omnipotence. As children, they are usually quiet, shy, obedient, sensitive and retiring. At puberty, they frequently become more withdrawn, then manifesting the aggregate of personality traits known as introversion, namely, quietness, seclusiveness, "shut-in-ness," and unsociability, often with eccentricity.

000-x43 Cyclothymic personality

Such individuals are characterized by an extratensive and outgoing adjustment to life situations, an apparent personal warmth, friendliness and superficial generosity, an emotional reaching out to the environment, and a ready enthusiasm for competition. Characteristic are frequently alternating moods of elation and sadness, stimulated apparently by internal factors rather than

by external events. The individual may occasionally be either persistently euphoric or depressed, without falsification or distortion of reality. The diagnosis in such cases should specify, if possible, whether hypomanic, depressed or alternating.

000-x44 Paranoid personality

Such individuals are characterized by many traits of the schizoid personality, coupled with an exquisite sensitivity in interpersonal relations, and with a conspicuous tendency to utilize a projection mechanism, expressed by suspiciousness, envy, extreme jealousy and stubbornness.

000-x50 PERSONALITY TRAIT DISTURBANCE

This category applies to individuals who are unable to maintain their emotional equilibrium and independence under minor or major stress because of disturbances in emotional development. Some individuals fall into this group because their personality pattern disturbance is related to fixation and exaggeration of certain character and behavior patterns; others, because their behavior is a regressive reaction due to environmental or endopsychic stress.

This classification will be applied only to cases of personality disorder in which the neurotic features (such as anxiety, conversion, phobia, etc.) are relatively insignificant, and the basic personality maldevelopment is the crucial distinguishing factor. Evidence of physical immaturity may or may not be present.

000-x51 Emotionally unstable personality

In such cases the individual reacts with excitability and ineffectiveness when confronted by minor stress. His judgment may be undependable under stress, and his relationship to other people is continuously fraught with fluctuating emotional attitudes, because of strong and poorly controlled hostility, guilt, and anxiety.

This term is synonymous with the former term "psychopathic personality with emotional instability."

000-x52 Passive-aggressive personality

Reactions in this group are of three types, as indicated below, and the diagnosis can be further elaborated, if desired, by adding the specific type

of reaction observed. However, the three types of reaction are manifestations of the same underlying psychopathology, and frequently occur interchangeably in a given individual falling in this category. For these reasons, the reactions are classified together. The clinical picture in such cases often has, superimposed upon it, anxiety reaction which is typically psychoneurotic (see Qualifying Phrases).

Passive-dependent type: This reaction is characterized by helplessness, indecisiveness, and a tendency to cling to others as a dependent child to a supporting parent.

Passive-aggressive type: The aggressiveness is expressed in these reactions by passive measures, such as pouting, stubbornness, procrastination, inefficiency, and passive obstructionism.

Aggressive type: A persistent reaction to frustration with irritability, temper tantrums, and destructive behavior is the dominant manifestation. A specific variety of this reaction is a morbid or pathological resentment. A deep dependency is usually evident in such cases. The term does not apply to cases more accurately classified as Antisocial reaction.

000-x53 Compulsive personality

Such individuals are characterized by chronic, excessive, or obsessive concern with adherence to standards of conscience or of conformity. They may be overinhibited, overconscientious, and may have an inordinate capacity for work. Typically they are rigid and lack a normal capacity for relaxation. While their chronic tension may lead to neurotic illness, this is not an invariable consequence. The reaction may appear as a persistence of an adolescent pattern of behavior, or as a regression from more mature functioning as a result of stress.

000-x5y Personality trait disturbance, other

This category is included to permit greater latitude in diagnosis. Instances in which a personality trait is exaggerated as a means to life adjustment (as in the above diagnoses), not classifiable elsewhere, may be listed here.

This category is designed also for the use of record librarians and statisticians dealing with incomplete diagnoses. It is not intended for use with "mixed" states, which are to be properly diagnosed according to the predominant trait disturbance.

000-x60 SOCIOPATHIC PERSONALITY DISTURBANCE

Individuals to be placed in this category are ill primarily in terms of society and of conformity with the prevailing cultural milieu, and not only in terms of personal discomfort and relations with other individuals. However, sociopathic reactions are very often symptomatic of severe underlying personality disorder, neurosis, or psychosis, or occur as the result of organic brain injury or disease. Before a definitive diagnosis in this group is employed, strict attention must be paid to the possibility of the presence of a more primary personality disturbance; such underlying disturbance will be diagnosed when recognized. Reactions will be differentiated as defined below.

000-x61 Antisocial reaction

This term refers to chronically antisocial individuals who are always in trouble, profiting neither from experience nor punishment, and maintaining no real loyalties to any person, group, or code. They are frequently callous and hedonistic, showing marked emotional immaturity, with lack of sense of responsibility, lack of judgment, and an ability to rationalize their behavior so that it appears warranted, reasonable, and justified.

The term includes cases previously classified as "constitutional psychopathic state" and "psychopathic personality." As defined here the term is more limited, as well as more specific in its application.

000-x62 Dyssocial reaction

This term applies to individuals who manifest disregard for the usual social codes, and often come in conflict with them, as the result of having lived all their lives in an abnormal moral environment. They may be capable of strong loyalties. These individuals typically do not show significant personality deviations other than those implied by adherence to the values or code of their own predatory, criminal, or other social group. The term includes such diagnoses as "pseudosocial personality" and "psychopathic personality with asocial and amoral trends."

000-x63 Sexual deviation

This diagnosis is reserved for deviant sexuality which is not symptomatic of more extensive syndromes, such as schizophrenic and obsessional reactions.

The term includes most of the cases formerly classed as "psychopathic personality with pathologic sexuality." The diagnosis will specify the type of the pathologic behavior, such as homosexuality, transvestism, pedophilia, fetishism and sexual sadism (including rape, sexual assault, mutilation).

000-x64 Addiction

Addictions will be classified as defined below.

000-x641 Alcoholism

Included in this category will be cases in which there is well established addiction to alcohol without recognizable underlying disorder. Simple drunkenness and acute poisoning due to alcohol are not included in this category.

000-x642 Drug addiction

Drug addiction is usually symptomatic of a personality disorder, and will be classified here while the individual is actually addicted; the proper personality classification is to be made as an additional diagnosis. Drug addictions symptomatic of organic brain disorders, psychotic disorders, psychophysiological disorders, and psychoneurotic disorders are classified here as a secondary diagnosis.

000-x70 SPECIAL SYMPTOM REACTIONS

This category is useful in occasional situations where a specific symptom is the single outstanding expression of the psychopathology. This term will not be used as a diagnosis, however, when the symptoms are associated with, or are secondary to, organic illnesses and defects, or to other psychiatric disorders. Thus, for example, the diagnosis Special symptom reaction, speech disturbance would be used for certain disturbances in speech in which there are insufficient other symptoms to justify any other definite diagnosis. This type of speech disturbance often develops in childhood. It would not be used for a speech impairment that was a temporary symptom of conversion hysteria or the result of any organic disease or defect.

The diagnosis should specify the particular "habit." (000-x71 Learning disturbance; 000-x72 Speech disturbance; 000-x73 Enuresis; 000-x74 Somnambulism; 000-x7y Other.)

TRANSIENT SITUATIONAL PERSONALITY DISORDERS

This general classification should be restricted to reactions which are more or less transient in character and which appear to be an acute symptom response to a situation without apparent underlying personality disturbance.

The symptoms are the immediate means used by the individual in his struggle to adjust to an overwhelming situation. In the presence of good adaptive capacity, recession of symptoms generally occurs when the situational stress diminishes. Persistent failure to resolve will indicate a more severe underlying disturbance and will be classified elsewhere.

000-x80 Transient situational personality disturbance

Transient situational disorders which cannot be given a more definite diagnosis in the group, because of their fluidity, or because of the limitation of time permitted for their study, may be included in this general category. This category is designed also for the use of record librarians and statisticians dealing with incomplete diagnoses.

000-x81 Gross stress reaction

Under conditions of great or unusual stress, a normal personality may utilize established patterns of reaction to deal with overwhelming fear. The patterns of such reactions differ from those of neurosis or psychosis chiefly with respect to clinical history, reversibility of reaction, and its transient character. When promptly and adequately treated, the condition may clear rapidly. It is also possible that the condition may progress to one of the neurotic reactions. If the reaction persists, this term is to be regarded as a temporary diagnosis to be used only until a more definitive diagnosis is established.

This diagnosis is justified only in situations in which the individual has been exposed to severe physical demands or extreme emotional stress, such as in combat or in civilian catastrophe (fire, earthquake, explosion, etc.). In many instances this diagnosis applies to previously more or less "normal" persons who have experienced intolerable stress.

The particular stress involved will be specified as (1) combat or (2) civilian catastrophe.

000-x82 Adult situational reaction

This diagnosis is to be used when the clinical picture is primarily one of superficial maladjustment to a difficult situation or to newly experienced environmental factors, with no evidence of any serious underlying personality defects or chronic patterns. It may be manifested by anxiety, alcoholism, asthenia, poor efficiency, low morale, unconventional behavior, etc. If untreated or not relieved such reactions may, in some instances, progress into typical psychoneurotic reactions or personality disorders. This term will also include some cases formerly classified as "simple adult maladjustment."

000-x83 Adjustment reaction of infancy

Under this term are to be classified those transient reactions in infants occurring on a psychogenic basis without organic disease. In most instances these will be outgrowths of the infant's interaction with significant persons in the environment or a response to the lack of such persons. Undue apathy, undue excitability, feeding and sleeping difficulties are common manifestations of such psychic disturbances in infants.

000-x84 Adjustment reaction of childhood

Under this heading are included only the transient symptomatic reactions of children to some immediate situation or internal emotional conflict. The more prolonged and definitive disturbances will be classified elsewhere.

Although the symptomatic manifestations are usually mixed, one type of manifestation may predominate. This group may be subclassified according to the most prominent manifestations as follows:

000-x841 Habit disturbance

When the transient reaction manifests itself primarily as a so-called "habit" disturbance, such as repetitive, simple activities, it may be subclassified here.

Indicate symptomatic manifestations under this diagnosis; for example, nail biting, thumb sucking, enuresis, masturbation, tantrums, etc.

000-x842 Conduct disturbance

When the transient reaction manifests itself primarily as a disturbance in social conduct or behavior, it will be classified here. Manifestations may

occur chiefly in the home, in the school, or in the community, or may occur in all three. Conduct disturbances are to be regarded as secondary phenomena when seen in cases of mental deficiency, epilepsy, epidemic encephalitis, and other well-recognized organic diseases.

Indicate symptomatic manifestations under this diagnosis; for example, truancy, stealing, destructiveness, cruelty, sexual offenses, use of alcohol, etc.

000-x843 Neurotic traits

When the transient reaction manifests itself primarily as physical or emotional symptoms, it will be classified here. Care must be taken to differentiate these transitory situational responses from the psychoneurotic reactions.

Neurotic traits are closely related to habit disturbances and a distinction between the two is not always possible or desirable. Tics of organic origin should be classified under organic nervous disease.

Under this diagnosis indicate symptomatic manifestations; for example, tics, habit spasms, somnambulism, stammering, over-activity, phobias, etc.

000-x85 Adjustment reaction of adolescence

Under this diagnosis are to be included those transient reactions of the adolescent which are the expression of his emancipatory strivings and vacillations with reference to impulses and emotional tendencies. The superficial pattern of the behavior may resemble any of the personality or psychoneurotic disorders. Differentiation between transient adolescent reactions and deep-seated personality trait disorders or psychoneurotic reactions must be made.

000-x86 Adjustment reaction of late life

Under this diagnosis will be included those transient reactions of later life which are an expression of the problems of physiological, situational, and environmental readjustment. Involutional physiological changes, retirement from work, breaking up of families through death, or other life situation changes frequently precipitate transient undesirable personality disturbances, or accentuate previous personality disorders. Such disturbances are to be differentiated from other psychogenic reactions and from reactions associated with cerebral arteriosclerosis, pre-senile psychosis, and other organic disorders.

NON-DIAGNOSTIC TERMS FOR HOSPITAL RECORD

These terms are included in the Standard Nomenclature of Diseases and Operations, and reprinted here for the use of hospitals in completing records and statistics. The reprinted list represents only a portion of those listed in the Standard Nomenclature, but includes the terms most commonly used by hospitals for mental disease and psychiatric services in general hospitals. The terms Diagnosis deferred, Disease none, Examination only, Experiment only, Observation, and Tests only, must be elaborated by the addition of explanatory phrases, such as, Observation (psychiatric).

The terms themselves are self-explanatory. In the six diagnoses listed in the preceding paragraph, it is necessary to change the code number to indicate more specifically the cause of hospital admission. The Psychobiologic Unit takes a first code number of 0... The y must be retained in the first three digits, hence is moved to second position when the first digit is changed to indicate the Psychobiologic Unit. The diagnosis, Observation, Psychiatric, then receives the code number of 0y0-001. Similarly, observation for disease of the nervous system will be recorded as 9y0-001, Observation, Neurological. Admission for psychological tests will be recorded under 0y0-003, Tests only (psychological tests).

SECTION III

RECORDING OF PSYCHIATRIC CONDITIONS

A. General Requirements

1. *Lowest sub-classification to be used in recording diagnoses:* The specific psychiatric conditions (reactions) are sufficiently well defined to justify their use without inclusion of the terms indicating the broader generic groups (disorders). In recording a psychiatric condition, the lowest sub-classification of the disorder will be used without being prefaced by generic terms such as "Personality disorder," "psychoneurosis" (psychoneurotic disorder), "Psychosis" (psychotic disorder), or to intermediate classifications such as "Personality pattern" and "Sociopathic personality." Examples:

- (a) Schizophrenic reaction, catatonic type.
- (b) Psychophysiologic gastro-intestinal reaction.
- (c) Phobic reaction.
- (d) Paranoid personality.
- (e) Adjustment reaction of childhood: conduct disturbance.

2. *Qualifying terms:* In addition to the diagnostic term used for specifying the particular psychiatric condition, the diagnosis may also include terms qualifying the severity of the condition. The term "severity" refers to the seriousness of the condition. It will not be determined solely by the degree of ineffectiveness, since other factors, such as underlying attitudes, or other psychiatric or physical conditions might have contributed to the total ineffectiveness. Severity will be described as "mild," "moderate," or "severe." Such terms as "moderately severe" or "mildly severe" are not sanctioned. Outstanding or conspicuous symptomatology may be added to the diagnosis as manifestations. Example: "Anxiety reaction, mild, manifested by loss of appetite and insomnia."

3. *Order of diagnosis:* The general principles for recording diagnoses as prescribed in the Standard Nomenclature of Diseases and Operations apply to the recording of psychiatric diagnoses. The immediate condition which necessitated the current admission of the patient will be considered as the primary cause of admission, and so recorded. In cases of several related conditions simultaneously necessitating treatment or hospitalization, the condition which is first in the chain of etiology will be designated as the

primary cause of admission. For unrelated conditions simultaneously necessitating treatment or hospitalization, the most serious condition will be recorded as the primary cause of admission. Within the limits of these general principles the following specific conditions will be considered with respect to cases involving psychiatric disorders.

(a) Unrelated diagnoses:

Physical and mental disorders may coexist but be causally unrelated. In such instances all conditions will be listed as separate diagnoses with the primary diagnosis being selected as above.

(b) Related diagnoses:

Physical and mental disorders may coexist and be causally related. The nature of the coexisting conditions determines whether the conditions will be recorded as separate diagnoses or as only one diagnosis.

(1) Related conditions requiring only one diagnosis:

In some instances, the mental reaction, although related to the physical disorder, is not sufficiently developed as a clinical psychiatric entity to require a formal psychiatric diagnosis. For example, a patient with pneumonia may be apprehensive and tense. While this mental status should be described in the patient's clinical history, or in his physical examination, along with any other symptoms or signs, on the individual medical record, the diagnosis will state only the non-psychiatric condition.

There are other instances where physical and mental disorders may coexist and where the physical disorder is a manifestation of the psychiatric condition, rather than a separate condition. Whenever this is true, only the psychiatric condition will be listed as a diagnosis, and the physical condition will be shown by a supplementary term. Example: Psychophysiological skin reaction, severe (pruritis ani).

(2) Related conditions requiring separate diagnoses:

Physical and mental disorders may coexist and be causally related, with both conditions being sufficiently marked and well defined to justify separate diagnoses. In such cases the causal relationship of the diagnoses should be indicated. The condition which caused or directly led to the other condition will precede the other condition in the order of diagnoses. This diagnostic procedure will be followed despite the fact that the psychiatric symptomatology is related to personality factors which existed prior to the immediate physical disease or trauma. For example in the illustration above

[Paragraph (b) (1)], should the state of apprehension or tension associated with pneumonia progress to a severe delirium, the double condition will require separate diagnoses of "Pneumonia, etc." and "Acute Brain Syndrome associated with systemic infection, pneumonia."

(3) Multiple psychiatric diagnoses:

(a) Whenever two separate psychiatric conditions exist, such as Acute Brain Syndrome, drug or poison intoxication, and Depressive reaction, both will be recorded. If a diagnostic entity (which would be recorded as the only diagnosis, if encountered as an isolated personality disturbance) is a part of a more extensive process or secondary to it, the primary condition will be recorded as the diagnosis, with the less important or secondary condition given as a manifestation. Examples:

- (1) Anxiety reaction manifested by somnambulism.
- (2) Passive-aggressive reaction, manifested by enuresis.

(b) Some psychiatric diagnoses are incompatible with certain other diagnoses and will not be recorded as existing together, such as psycho-neurotic and psychotic reactions. Many conditions may progress from one to another but are not present simultaneously. Only one type of psychoneurotic reaction will be used as a diagnosis, even in the presence of symptoms of another type. The diagnosis will be based on the predominant type, followed by a statement of its manifestations, including symptoms of the other types of reaction. Examples:

- (1) Anxiety reaction with minor conversion symptom.
- (2) Phobic reaction, manifested by claustrophobia, with obsessive-compulsive symptoms, counting and recurring thoughts.

B. Special Requirements

1. General.

The general requirements outlined above for the recording of diagnoses for statistical purposes, apply also to the recording of diagnoses on the clinical records. In view of the fact, however, that the clinical records fulfill wider function than the statistical records, the mere stating of the diagnosis (including its qualifying terms) is not sufficient for certain conditions, since it does not furnish enough information to describe the clinical picture. For example, a diagnosis "Anxiety reaction" does not convey whether the illness has oc-

curred in a previously normal or previously neurotic personality. Furthermore, it does not indicate the degree and nature of the external stress nor does it reveal the extremely important information as to the degree to which the patient's functional capacity has been impaired by the psychiatric condition. Therefore, for most conditions a complementary evaluation must be entered in the clinical records. This additional evaluation will consist of the following elements:

- (a) External precipitating stress.
- (b) Premorbid personality and predisposition.
- (c) Degree of psychiatric impairment.

Under this system the diagnosis becomes one of four factors to be considered in evaluating a case. It is essential to recognize that the time element is all-important in this evaluation. The diagnostic formulation on any particular date may be changed on a subsequent date. A patient may show severe impairment of function upon admission but at the time of discharge may have mild or no impairment. For this reason, it is essential that a beginning and terminating evaluation be recorded in each case. Degree of impairment is not synonymous with the terms, "Recovered," "Improved," and "Unimproved." The latter terms are more inclusive, inasmuch as they indicate a change in the patient's total condition over a period of time.

2. Conditions Requiring Complementary Diagnostic Evaluation.

All disorders in this nomenclature will be given complementary diagnostic evaluation except those grouped under Mental Deficiency.

3. External Precipitating Stress.

While it is recognized that multicausal factors operate, the apparent or obvious external stress precipitating the condition is to be evaluated as to type, degree, and duration. The stress will generally refer to the immediate emotional, economic, environmental, or cultural situation which is directly related to the reaction manifest in the patient. Unconscious internal conflicts are not to be considered as external stress. Whenever the stress cannot be determined, it should be recorded as "undetermined." The degree of stress must be evaluated in terms of its effect on the "average man" of the society from which the patient comes. It must not be presumed that a particular environmental stress is severe because of one or even several individuals reacting poorly to it, since these individuals may have had poor

resistance to that particular stress. Stress will be classified as "none," "mild," "moderate," or "severe." Severe stress is such that the average individual when exposed to it could be expected to develop psychiatric symptoms. Moderate stress is such that some evidence of a causal relationship can be established between the symptoms and the precipitating factors. Mild stress is such that the average individual could be exposed to it without developing psychiatric symptoms. In classifying the stress according to one of these terms, the actual stress should be described in a brief phrase in order to allow more accurate evaluation of the case. Example: "Moderate stress (business failure)."

4. Pre-Morbid Personality and Predisposition.

The description of predisposition will consist of the patient's outstanding personality traits or weaknesses, which have resulted from inheritance and development, and an evaluation of the degree of this predisposition based on the patient's past history and personality traits. Frequently, the premorbid personality may be such that classification can be made as one of the personality disorders. When the predisposition cannot be determined, it will be recorded as "undetermined." The degree of predisposition will be reported as "none," "mild," "moderate," or "severe."

(a) None: No predisposition evident. This description will be used when the patient shows no evidence of previous personality traits or make-up appearing to be related to his present illness (and when there has been no positive history of a mental illness in the immediate family).

(b) Mild predisposition: This description will be used when the patient's history reveals mild, transient, emotional upsets, and/or abnormal personality traits or defects of intelligence which, however, do not significantly incapacitate or did not require medical care. (It will be used also where there is a past history of mental illness in the patient's family.) Examples: History of mild, transient, psychoneurotic reaction or mild personality disorder, or borderline mental deficiency.

(c) Moderate predisposition. This description will be used when the patient has a personal history of partially incapacitating emotional upsets, or definitely abnormal personality traits, or defects in intelligence, which have resulted in social maladjustment. Examples: Mild, chronic, psychoneurotic reaction; moderate psychoneurotic reaction of limited duration; mental deficiency of mild degree.

(d) Severe predisposition. This description will be used in the presence of a definite history of previous overt mental disorder. Examples: Definite

psychotic reaction, moderate or severe chronic psychoneurotic reaction, marked degree of personality disorder, moderate or marked mental deficiency.

5. Degree of Psychiatric Impairment.

The psychiatric impairment represents the degree to which the individual's total functional capacity is affected by the psychiatric condition. This is not necessarily the same as general ineffectiveness. The degree of effectiveness in any particular job is a result of the individual's emotional stability, intellect, physical condition, attitudes, motivation, training, etc., as well as of the degree and type of his psychiatric impairment. Under some circumstances, an individual with a moderate psychiatric impairment may be more effective than another individual with a minimal impairment. Degree of impairment, as used here, refers only to ineffectiveness resulting from the current psychiatric impairment.

The degree of the impairment at the time of original consultation or admission will often vary from the degree of impairment after treatment. Impairment after termination of treatment represents the residual or persistent impairment. Depending on the degree of the impairment, it will be recorded as, "No Impairment," "Minimal Impairment," "Mild Impairment," "Moderate Impairment," "Severe Impairment." The individual's pre-illness capacity in terms of occupational and social adjustment will be used as a base line for estimating the degree of impairment.

(a) No impairment.

This term will be used whenever there are no medical reasons for changing employment or life situation.

(b) Minimal impairment.

This term will be used to indicate incapacity of perceptible degree and, in terms of percentage, not to exceed 10%.

(c) Mild impairment.

This term will be used to indicate impairment in social and occupational adjustment, such as a 20 to 30% disability.

(d) Moderate impairment.

This term will be used to indicate a degree of impairment which seriously, but not totally, interferes with the patient's ability to carry on his pre-illness social and vocational adjustment, such as a 30 to 50% disability.

(e) Severe impairment.

This term will be used to indicate a degree of impairment which for practical purposes prevents a patient from functioning at his pre-illness social and vocational levels. Over 50% disability.

6. Manner of Recording.

The manner of recording diagnosis on clinical records is illustrated by the following examples:

**(a) Acute brain syndrome associated with drug intoxication
(bromide)**

Stress: none apparent.

Predisposition: moderate; history of emotional instability requiring medical care.

Impairment: none; recovered under treatment.

(b) Chronic brain syndrome associated with cerebral arterio-sclerosis

Stress: mild; malnutrition and minor respiratory infection.

Predisposition: none.

Impairment: moderate; able to adjust outside hospital under supervision.

(c) Schizophrenic reaction, hebephrenic type, severe.

Stress: none.

Predisposition: severe; Schizoid personality since childhood.

Impairment: severe; requires hospitalization.

(d) Psychophysiologic gastro-intestinal reaction, moderate, manifested by nausea, vomiting, loss of appetite and epigastric pains.

Stress: moderate; in train wreck with a number of people killed.

Predisposition: moderate; emotionally unstable personality since childhood.

Impairment: mild; able to return to previous social and vocational situation under treatment.

(e) **Obsessive-compulsive reaction, moderate, manifested by counting, recurring thoughts and ceremonials.**

Stress: Mild; promotion to a more responsible job.

Predisposition: moderate; compulsive personality and history of emotional upsets since childhood.

Impairment: moderate; able to carry less responsible job after treatment.

(f) **Passive aggressive personality.**

Stress: none apparent.

Predisposition: mild; sister hospitalized with schizophrenic reaction.

Impairment: mild; returned to work but shows increase in unauthorized absences.

(g) **Adult situational reaction, severe, manifested by anxiety, asthenia and poor efficiency.**

Stress: Severe; sudden loss of immediate family.

Predisposition: none.

Impairment: none; recovered under psychotherapy.

SECTION IV

STATISTICAL REPORTING

A. BASIC PRINCIPLES

Mental Hospitals

There is an increasing need for adequate statistical data on the mental hospital population of the country. As a result, many State hospital systems have expressed a desire for guidance in the development of statistical systems.

On the basis of the records described in the *Statistical Manual for the Use of Hospitals for Mental Disease*,¹ and modifications of them, several States already have developed extensive record systems which include procedures for establishing punch card files and for carrying out machine tabulations. These State systems are not identical in their details of operation or in the record forms used. Nevertheless, they all have certain elements in common and can yield certain common types of basic statistical information.

The following discussion is not intended to serve as an operations manual. Its purpose is to provide a guide line to those States and hospitals that contemplate organizing or revising their statistical systems by focusing attention on the minimum elements found in existing State systems which are essential to adequate reporting. Persons interested in obtaining operating details may do so by writing to the Mental Hospital Authorities in the States listed in Appendix D for copies of manuals which describe their reporting systems, forms, punch cards, codes and machine tabulating procedures.

A primary requisite in the establishment of a reporting system is that the basic objectives of the system should be clearly stated at the outset. With these objectives in mind, the system should be set up and kept in operation by a person who is familiar with statistical methods, preferably a trained statistician with some experience in the application of statistical methods to hospital and public health problems. Such a person can design record forms and procedures needed to collect pertinent data, can set up the appropriate tabulations needed to answer specific questions, and can analyze the data adequately. There are available sorting and tabulating machines (such as International Business Machines and Remington Rand Powers Equipment)

¹ *Statistical Manual for the Use of Hospitals for Mental Disease*, 10th Edition, 1942, National Association for Mental Health.

which help produce facts rapidly and accurately by eliminating tedious hand operations and which make possible certain operations and tabulations that are impractical to carry out by hand. It should be kept in mind, however, that such machines are not a substitute for the well-trained statistician but merely a tool to help the statistician perform the sorting and other operations incidental to obtaining the necessary tabulations.

A reporting system does not have to be complex to be effective. An efficient reporting system can be designed to provide basic facts concerning the admissions, patients under treatment, discharges, and deaths by having a limited number of basic variables reported to a central office for every patient admitted to the hospital system. For example, the following items should be reported at time of admission:

- (1) Patient's name
- (2) Residence (street address, city or town, county, state)
- (3) Serial number assigned to patient
- (4) Hospital to which admitted
- (5) Date of current admission
- (6) Birth date (month, day, year)
- (7) Age (last birthday) on admission
- (8) Sex (male, female)
- (9) Race (White, Negro, American Indian, Chinese, Japanese, etc.)
- (10) Marital status (single, married, widowed, divorced, separated)
- (11) Admission status (first, readmission, transfer)
- (12) Type of commitment² (voluntary; medical certification, standard nonjudicial procedure; medical certification, emergency procedure; without medical certification, emergency procedure; court order, judicial procedure)
- (13) Mental disorder.

The following facts should be reported subsequent to admission at the time each event occurs:

- (1) Changes in diagnosis
- (2) Dates of placement on trial visit, family care or temporary visit and return from such leave
- (3) Dates of escape and return from escape
- (4) Dates of transfer

² These terms are the ones used in the *Draft Act Governing Hospitalization of the Mentally Ill*, Federal Security Agency, Public Health Service, Publication No. 51. Types of commitment procedures practiced in a given State can be substituted for these.

- (5) Date of discharge and whether discharge is from hospital direct, trial visit, family care, temporary visit or while otherwise absent
- (6) Date of death and whether death occurred in hospital, on trial visit, family care, temporary visit, or while otherwise absent
- (7) Causes of death.⁸

These items should be collected on a single card, such as is shown in figure 1. Included on the card are several other items which may be found useful for identification or other purposes such as religion, usual occupation,⁴ business or industry, veteran status, social security number, patient's birthplace, parents' names and birthplaces. Spaces are also provided for recording the degree of psychiatric impairment patient was found to have at time of admission, discharge, and intermediate dates as well as the outcome of hospitalization.

It should be pointed out that certain basic facts are needed on the book population of the hospital—that is, the residents in hospital and patients on trial visit, family care, escape, etc.—as of the date the reporting system starts. To obtain these facts entails carrying out a census of the book population as of the appropriate date (for example, January 1), recording for these individuals the same items as are to be obtained on the patients admitted after that date. By making the appropriate additions to and subtractions from

⁸ Causes of death should be recorded in the same manner as on the Medical Certification Section of the Standard Certificate of Death. For information on the completion of this section of the death certificate see "Physicians Handbook on Death and Birth Registration," 10th Edition, Government Printing Office, Washington 25, D. C. (15 cents.) The classification of causes of death for statistical tabulation should be done in accordance with the "International Statistical Classification of Diseases, Injuries and Causes of Death." Volume I includes an Introduction, List of Categories, Tabular List of Inclusions, a section on medical certification and rules for classification, and special lists for tabulation purposes. Volume II is the Alphabetical Index to the List. The index is a working tool for use in coding medical records and death certificates. The manual also contains rules for uniform selection of underlying cause of death and three lists recommended for use by all member nations of the World Health Organization in tabulating morbidity and mortality data. The manual can be obtained from the Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.

⁴ "Usual occupation" refers to the occupation the patient pursued for the longest part of his working life. It is the one occupation out of several the patient may have had that accounted for the greatest number of years of his working life. This item and "kind of business or industry" are useful for identification and, if death occurs, for completing the death certificate. It is also of some use in research, although studies of association between occupation and mental illness would probably require detailed occupational histories. If the patient was retired prior to hospitalization, enter his usual occupation and industry in items 12 and 13 and insert "ret" after the usual occupation. For more specific details regarding terms to be used in the recording of occupation and industry see "Guide for Reporting Occupation and Industry on Death Certificates" issued by the Public Health Service, National Office of Vital Statistics, Washington 25, D. C., and "Alphabetical Index of Occupations and Industries," Bureau of the Census, Washington 25, D. C.

the various categories of patients, it is then possible to keep the book population up-to-date.

If additional information is desired, as for example on the type of therapy each patient receives, the occurrence of non-psychiatric illness such as cancer, tuberculosis, diabetes, etc., the form could be enlarged to provide additional fields for such data or special forms could be designed to obtain such data which could later be collated with the basic record outlined above.

From the basic facts collected on the patients the following kinds of statistical tabulations may be obtained (these tables are set up in outline form at the end of this Section) :

(1) Gross movement table which tells how many patients are admitted to, die in, or are discharged from the hospital, how many are on trial visit, escape, etc. These data are needed to compute crude separation, discharge and death rates (table 1).

(2) More specific data about the characteristics of the patients who are admitted, discharged, on extramural care (trial visit and family care) or resident in the hospital at the end of the year. For example:

(a) Annual Admissions:

1. By mental disorder, sex, race, age at admission and admission status (table 2)

(b) Annual Discharges:

1. By mental disorder, sex, race, age at discharge and admission status (table 3)
2. By mental disorder, sex, race, admission status and net length of time in hospital for this admission (table 4)
3. By mental disorder, sex, race and condition on discharge (table 5)

(c) Annual Deaths:

1. By mental disorder, sex, race, age at death and admission status (table 6)
2. By mental disorder, sex, race, admission status and net length of time in hospital for this admission (table 7)

(d) Resident Patients at the End of the Year:

1. By mental disorder, sex, race, and age at the end of the year (table 8)
2. By mental disorder, sex, race and time on books (table 9)

INSTITUTION

1. PATIENT'S NAME (Last, first, middle)		3. SERIAL NUMBER														
2. PATIENT'S ADDRESS (No., street, city or town, county, state)		4. DATE ADMITTED														
5. LEGAL RESIDENCE (State or county)	6. PATIENT'S BIRTHPLACE (State or foreign country)	7. DATE OF BIRTH	8. ADMISSION AGE (Yrs. last birthday)	9. SEX												
10. RACE	11. RELIGION															
12. MARITAL STATUS	13a USUAL OCCUPATION		13b KIND OF BUSINESS OR INDUSTRY													
14. WAS PATIENT EVER IN U.S. ARMED FORCES? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNK.	14a IF YES, GIVE WAR OR DATES OF SERVICE		17a FATHER'S NAME													
15. SOCIAL SECURITY NUMBER	16. CITIZEN OF WHAT COUNTRY?		17b BIRTHPLACE													
18a MOTHER'S MAIDEN NAME		18b BIRTHPLACE														
19. TYPE OF ADMISSION <input type="checkbox"/> VOLUNTARY <input type="checkbox"/> MED. CERTIF., STAND. NON-JUDICIAL <input type="checkbox"/> MED. CERTIF., EMERGENCY <input type="checkbox"/> WITHOUT MED. CERTIF., EMERGENCY <input type="checkbox"/> COURT ORDER, JUDICIAL PROCEDURE <input type="checkbox"/> OTHER (Specify)		20. ADMISSION STATUS <input type="checkbox"/> FIRST ADMISSION <input type="checkbox"/> READMISSION <input type="checkbox"/> TRANSFER IN		21. RECORD OF PREVIOUS HOSPITALIZATIONS FOR MENTAL DISORDER <small>(Include public and private mental hospitals and general hospitals with psychiatric wards)</small> <table border="1"> <thead> <tr> <th>INSTITUTION</th> <th>DATES OF</th> </tr> <tr> <th>ADMISSION</th> <th>DISCHARGE</th> </tr> </thead> <tbody> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </tbody> </table>	INSTITUTION	DATES OF	ADMISSION	DISCHARGE								
INSTITUTION	DATES OF															
ADMISSION	DISCHARGE															
22. DIAGNOSIS OF MENTAL DISORDER (Include severity)		23. DATE OF DISCHARGE	25. DISCHARGED FROM <input type="checkbox"/> HOSPITAL <input type="checkbox"/> TRIAL <input type="checkbox"/> VISIT <input type="checkbox"/> FAMILY CARE	26. OUTCOME <input type="checkbox"/> RECOVERED <input type="checkbox"/> IMPROVED <input type="checkbox"/> UNIMPROVED <input type="checkbox"/> DEAD <input type="checkbox"/> WITHOUT MENTAL DISORDER												
DATE	DIAGNOSIS															
		24. AGE AT DISCHARGE														
		27. TRANSFERRED TO	DATE													

FIG. 1. Statistical card for use in hospitals for mental illness (front)

FIG. 1. (Cont'd.) Statistical card for use in hospitals for mental illness (back)

(c) Patients on Extramural Care (trial visit plus family care) at End of Year:

1. By mental disorder, sex, race and age at the end of year (table 10)
2. By mental disorder, sex, race and time on books (table 11)

(3) Data that tell what happens to a cohort of patients admitted in a specific year, i.e., follow-up data on a group of annual admissions to determine how many of the first admissions of 1948, for example, were in the hospital, discharged, on trial visit, in family care or otherwise absent or dead twelve months following their date of admission, by such factors as mental disorder, sex, and race (table 12).

Additional tables can be prepared that may be useful for administrative and other purposes within a State hospital system. For example:

- (a) Resident population as of end of year by county of residence at time of admission, and sex with corresponding rates per 100,000 population
- (b) Annual first admissions and readmissions to State mental hospitals by county of residence and sex with corresponding rates per 100,000 population
- (c) Overcrowding: Excess of average daily resident patients over rated capacity of hospital
- (d) Administrative staff, full-time, by occupation and ratio of patients to various occupational categories as for example, physicians, nurses, attendants and social workers.

Actual examples of tabulations such as those mentioned above may be obtained by writing to the State Mental Hospital Authority in the list of States in Appendix D for copies of their annual reports or to the Biometrics Branch, National Institute of Mental Health of the Public Health Service.

The annual reports of New York, New Jersey, Virginia and California and the monthly bulletin of the Ohio Department of Public Welfare are particularly useful in this respect.⁶ Mention should also be made of the annual Census of Patients in Mental Institutions, issued by the National

⁶ The Ohio Bulletin for the months of May 1947, May 1948 and May 1949, and a paper in the American Journal of Psychiatry, Vol. 104, No. 9, March 1948, "New Facts on Prognosis in Mental Disease," by Robert H. Israel, M.D. and Nelson A. Johnson, B.A., contain good examples of tabulations that show the status of a group of annual admissions on the anniversary of their admission.

Institute of Mental Health, Public Health Service. This volume includes the following data for each State and for the United States:

1. Movement of population by sex
2. First admissions by sex, age and mental disorder
3. Discharges by sex, mental disorder and condition on discharge
4. Administrative staff as of end of year
5. Expenditures by purpose.

Copies of the Census and of Mental Health Statistics—Current Reports, a series of special studies on mental hospital data and other pertinent subjects may be obtained from the National Institute of Mental Health, Public Health Service, Bethesda 14, Maryland.

Outpatient Psychiatric Clinics

Relatively little has been done in the development of statistical reporting and record systems in outpatient psychiatric clinics. Several States have instituted reporting systems, in particular, California, New York, Ohio, Michigan, New Jersey and Virginia. Copies of record forms and operating manuals may be obtained by writing to the Mental Hospital Authority in each of these States (Appendix D). In the interim, operational information will be collected by the Biometrics Branch, National Institute of Mental Health, and may be obtained, as it becomes available, by letter to that agency.

It is anticipated that in the next few years more work will be done in the development of this important area of psychiatric statistics. As additional data become available they will be collected for publication in future manuals.

B. SUGGESTED TABULATIONS

Definitions of Terms in Movement Table

First Admission: A patient admitted for the first time to any hospital for the treatment of mental disease, except institutions for temporary care only.

Readmission: A patient admitted who has previously been under treatment in a hospital for mental disease, excepting transfers and those who have been hospitalized only in institutions for temporary care.

Transfer: A patient brought directly from one hospital to another without a break in custody and without being formally discharged from the first hospital and formally admitted by the second.

Trial visit (conditional discharge, convalescent status, convalescent care,

indefinite leave) : 'Status of patients absent from the hospital but still on the books or in its custody. This is a type of care for patients, usually in their homes, in which the ability of the patient to adjust to normal community life is tested. He might be returned to the hospital at any time before discharge for his own protection or that of the community.

Family Care: Status of patients who have been placed in the community in private families other than their own, under State supervision. The expense of maintenance may be borne by the State, the patient's estate, relatives, Old Age Assistance or some other person or agency.

Temporary Visit (leave of absence) : Status of patients temporarily absent from the hospital for short periods of time with the understanding that the patient will return to the hospital within a specified time.

Otherwise Absent: Status of patients leaving the hospital without permission (escape or elopement) or remaining away without leave and who are not discharged from the hospital books.

Discharge: Status of patients removed from the hospital books (except by death).

Death: Patients who die while on the hospital books.

TABLE I
HOSPITAL FOR MENTAL DISEASE
MOVEMENT OF PATIENT POPULATION BY SEX¹

Report for Year Ending

(Month) (Day) (Year)

	Total	Male	Female
A. Total Population.			
1. On books beginning of year (total)			
In hospital			
On trial visit			
In family care			
On temporary visit			
Otherwise absent			
2. Admissions during year (total)			
First admissions			
Readmissions			
Transfers from other hospitals for mental disease			
3. Separations during year (total)			
Discharges direct from hospital			
Discharges while on trial visit			
Discharges from family care			
Discharges from temporary visit			
Discharges while otherwise absent			
Deaths in hospital			
Deaths on trial visit			
Deaths in family care			
Deaths on temporary visit			
Deaths while otherwise absent			
Transfers to other hospitals for mental disease			
4. On books end of year (total)			
In hospital			
On trial visit			
In family care			
On temporary visit			
Otherwise absent			
B. Population on Leave (trial visit, family care, on temporary visit, or otherwise absent)			
1. On leave beginning of year (total)			
On trial visit			
In family care			
On temporary visit			
Otherwise absent			
2. Placed on leave from hospital during year (total)			
To trial visit			
To family care			
To temporary visit			
To otherwise absent			
3. Returns to hospital from leave during year (total)			
From trial visit			
From family care			
From temporary visit			
From otherwise absent			
4. Separations from leave by discharge, death or transfer during year (total)			
From trial visit			
From family care			
From temporary visit			
From otherwise absent			
5. On leave end of year (total)			
On trial visit			
In family care			
On temporary visit			
Otherwise absent			

¹ Similar tabulations should be made by race.

TABLE 2

HOSPITAL FOR MENTAL DISEASE

FIRST ADMISSIONS¹ DURING THE YEAR BY AGE AT ADMISSION AND MENTAL DISORDER:
WHITE — MALE²

Report for Year Ending
(Month) (Day) (Year)

MENTAL DISORDER ³	Total	AGE (in years)														Age un- known
		Under 15	15- 19	20- 24	25- 29	30- 34	35- 39	40- 44	45- 49	50- 54	55- 59	60- 64	65- 69	70- 74	75- 79	80- 84
I Acute Brain Syndromes.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
II Chronic Brain Syndromes with psychotic reaction	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
III Chronic Brain Syndromes with neurotic reaction	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Etc. ⁴	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

¹ Similar tabulations should be made for readmissions.

² Similar tabulations should be made for white females and for non-white males and females.

³ The statistical classification of mental disorder is given in detail in Section V.

TABLE 3

HOSPITAL FOR MENTAL DISEASE

ALL DISCHARGES¹FIRST ADMISSIONS² BY AGE AT DISCHARGE AND MENTAL DISORDER:
WHITE — MALE³Report for Year Ending _____
(Month) (Day) (Year)

MENTAL DISORDER ⁴	Total	AGE (in years)															
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over
I Acute Brain Syndromes.....																	
— — —																	
— — —																	
II Chronic Brain Syndromes with psychotic reaction																	
— — —																	
III Chronic Brain Syndromes with neurotic reaction																	
— — —																	
Etc. ⁴																	

¹ Include all first admissions discharged from the books of the hospital.² Similar tabulations should be made for readmissions.³ Similar tabulations should be made for white females and for non-white males and females.⁴ The statistical classification of mental disorder is given in detail in Section V.

TABLE 4
HOSPITAL FOR MENTAL DISEASE

ALL DISCHARGES¹
 FIRST ADMISSIONS² BY NET LENGTH OF TIME³ IN HOSPITAL AND MENTAL DISORDER:
 WHITE — MALE⁴

Report for Year Ending
 (Month) (Day) (Year)

MENTAL DISORDER ⁵	Total	NET LENGTH OF TIME IN HOSPITAL FOR THIS ADMISSION											
		Under 3 mos.	3-5 mos.	6-11 mos.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years
I Acute Brain Syndromes													
—													
—													
II Chronic Brain Syndromes with psychotic reaction													
—													
—													
III Chronic Brain Syndromes with neurotic reaction													
—													
Etc. ⁵													

¹ Include all first admissions discharged from the books of the hospital.

² Similar tabulations should be made for readmissions.

³ Net length of time is total time on books for this admission minus time on trial visit or otherwise absent, that is, on escape or away without leave.

⁴ Similar tabulations should be made for white females and for non-white males and females.

⁵ The statistical classification of mental disorder is given in detail in Section V.

MENTAL DISORDERS

TABLE 5

HOSPITAL FOR MENTAL DISEASE

ALL DISCHARGES¹ BY CONDITION ON DISCHARGE AND MENTAL DISORDER:
WHITE — MALE²

Report for Year Ending _____
(Month) (Day) (Year)

MENTAL DISORDER ³	Total	CONDITION ON DISCHARGE			
		Recovered	Improved	Unimproved	Unclassified
I Acute Brain Syndromes
II Chronic Brain Syndromes with psychotic reaction
III Chronic Brain Syndromes with neurotic reaction
Etc. ³

¹ Include all patients discharged from the books of the hospital.

² Similar tables should be made for white females and for non-white males and females.

³ The statistical classification of mental disorder is given in detail in Section V.

TABLE 6

HOSPITAL FOR MENTAL DISEASE

ALL DEATHS,¹ FIRST ADMISSIONS² BY AGE AT DEATH AND MENTAL DISORDER:
WHITE — MALE³

Report for Year Ending

(Month) (Day) (Year)

MENTAL DISORDER ⁴	Total	Age (in years)														Age un- known	
		Under 15	15- 19	20- 24	25- 29	30- 34	35- 39	40- 44	45- 49	50- 54	55- 59	60- 64	65- 69	70- 74	75- 79	80- 84	
I Acute Brain Syndromes																	
—																	
—																	
II Chronic Brain Syndromes with psychotic reaction																	
—																	
—																	
III Chronic Brain Syndromes with neurotic reaction																	
—																	
Etc. ⁴																	

¹ Include all deaths occurring among first admissions while on the books of the hospital.² Similar tabulations should be made for readmissions.³ Similar tabulations should be made for white females and for non-white males and females.⁴ The statistical classification of mental disorder is given in detail in Section V.

TABLE 7
 HOSPITAL FOR MENTAL DISEASE
 ALL DEATHS,¹ FIRST ADMISSIONS² BY NET LENGTH OF TIME³
 IN HOSPITAL AND MENTAL DISORDER:
 WHITE — MALE⁴

Report for Year Ending (Month) (Day) (Year)

MENTAL DISORDER ⁵	Total	NET LENGTH OF TIME IN HOSPITAL FOR THIS ADMISSION												
		Under 3 mos.	3-5 mos.	6-11 mos.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30 years and over
I Acute Brain Syndromes.....														
—														
—														
II Chronic Brain Syndromes with psychotic reaction														
—														
—														
III Chronic Brain Syndromes with neurotic reaction														
—														
Etc. ⁶														

¹ Include all deaths occurring among first admissions while on the books of the hospital.

² Similar tabulations should be made for readmissions.

³ Net length of time is total time on books for this admission minus time on trial visit or otherwise absent, that is, on escape or away without leave.

⁴ Similar tabulations should be made for white females and for non-white males and females.

⁵ The statistical classification of mental disorder is given in detail in Section V.

TABLE 8

HOSPITAL FOR MENTAL DISEASE

RESIDENT PATIENTS¹ AT END OF YEAR BY AGE AT END OF YEAR AND MENTAL DISORDER:
WHITE — MALE²

Report for Year Ending

(Month) (Day) (Year)

MENTAL DISORDER ³	Total	AGE (in years)															Age not known
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	
I Acute Brain Syndromes																	

II Chronic Brain Syndromes with psychotic reaction																	

II Chronic Brain Syndromes with neurotic reaction																	

Etc. ³																	

¹ Tabulations should be made separately for first admissions and for readmissions. Patients on temporary visit are considered as in residence.² Similar tabulations should be made for white females and for non-white males and females.³ The statistical classification of mental disorder is given in detail in Section V.

TABLE 9

HOSPITAL FOR MENTAL DISEASE

RESIDENT PATIENTS¹ AT END OF YEAR BY TIME ON BOOKS² AND MENTAL DISORDER:
WHITE — MALE³

Report for Year Ending

(Month) (Day) (Year)

MENTAL DISORDER ⁴	Total	TIME ON BOOKS												
		Under 3 mos.	3-5 mos.	6-11 mos.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30 years and over
I Acute Brain Syndromes														
— — —														
— — —														
— — —														
II Chronic Brain Syndromes with psychotic reaction														
— — —														
— — —														
III Chronic Brain Syndromes with neurotic reaction														
— — —														
Etc. ⁴														

¹ Tabulations should be made separately for first admissions and for readmissions. Patients on temporary visit are considered as in residence.² Time on books is interval between date of admission for this admission and last day of year covered by this report.³ Similar tabulations should be made separately for females and for non-white patients.⁴ The statistical classification of mental disorder is given in detail in Section V.

TABLE 10

HOSPITAL FOR MENTAL DISEASE

PATIENTS IN EXTRAMURAL CARE¹ AT END OF YEAR
BY AGE AT END OF YEAR AND MENTAL DISORDER:
WHITE — MALE²

Report for Year Ending

(Month) (Day) (Year)

MENTAL DISORDER ³	Total	Age (in years)															
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	Age unknown
I Acute Brain Syndromes																	
— — —																	
— — —																	
II Chronic Brain Syndromes with psychotic reaction																	
— — —																	
— — —																	
III Chronic Brain Syndromes with neurotic reaction																	
— — —																	
Etc. ⁴																	

¹ Tabulations should be made separately for first admissions and for readmissions. Patients in extramural care are patients on trial visit and those in family care.

² Similar tabulations should be made for white females and for non-white males and females.

³ The statistical classification of mental disorder is given in detail in Section V.

MENTAL DISORDERS

TABLE 11
 HOSPITAL FOR MENTAL DISEASE
 PATIENTS IN EXTRAMURAL CARE¹ AT END OF YEAR
 BY TIME ON BOOKS² AND MENTAL DISORDER:
 WHITE — MALE³

MENTAL DISORDER ⁴	Total	TIME ON BOOKS												
		Under 3 mos.	3-5 mos.	6-11 mos.	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30 years and over
I Acute Brain Syndromes.....														

II Chronic Brain Syndromes with psychotic reaction														

III Chronic Brain Syndromes with neurotic reaction														

Etc. ⁴														

¹ Tabulations should be made separately for first admissions and for readmissions. Patients in extramural care are patients on trial visit and those in family care.

² Time on books is interval between date of admission for this admission and last day of year covered by this report.

³ Similar tabulations should be made separately for white females and for non-white males and females.

⁴ The statistical classification of mental disorder is given in detail in Section V.

TABLE 12
HOSPITAL FOR MENTAL DISEASE
DISPOSITION¹ OF FIRST ADMISSIONS WITHIN THE TWELVE MONTH PERIOD FOLLOWING ADMISSION
BY MENTAL DISORDER:
WHITE — MALE²

Report for Admissions during Year Ending
(Month) (Day) (Year)

MENTAL DISORDER ³	Total first admissions	Resident in hospital ⁴	DISPOSITION				
			OUT OF HOSPITAL				Deaths ⁶
			Discharges ⁴	On trial visit	In family care	Otherwise absent ⁵	
I Acute Brain Syndromes.....	—	—	—	—	—	—	—
II Chronic Brain Syndromes with psychotic reaction	—	—	—	—	—	—	—
III Chronic Brain Syndromes with neurotic reaction	—	—	—	—	—	—	—
Etc. ⁸	—	—	—	—	—	—	—

¹ All first admissions occurring during a given year are considered a cohort. Each person in the cohort is traced for a year. The disposition of each individual patient as of the end of 12 months following admission to the State hospital system is recorded.

² Similar tabulations should be made separately for white females and for non-white males and females.

³ Include first admissions resident in the hospital at the end of the 12 month period following admission. Patients on temporary visit are considered as in residence.

⁴ Include only first admissions discharged from the books of the hospital within the 12 month period following admission.

⁵ Include first admissions who at the end of the 12 month period following admission are on escape, elopement, or out of the hospital against advice or authorization and who are not discharged from the hospital books.

⁶ Include only first admissions who died while on the books of the hospital within the 12 month period following admission.

⁷ Include patients who are transferred from one hospital for mental disease to another without a break in custody, that is, without a formal discharge from the first hospital or a formal admission to the second.

⁸ The statistical classification of mental disorder is given in detail in Section V.

SECTION V

STATISTICAL CLASSIFICATION OF MENTAL DISORDER

As discussed in Appendix A, the International Statistical Classification,¹ 1948 revision, has been used to convert the entire Standard Nomenclature into a form suitable for statistical purposes. However, certain problems were encountered in making Section V of the International Classification, which deals with mental, psychoneurotic and personality disorders, conform to the concepts of the Psychobiological Unit of the Standard Nomenclature. For example, the International Classification provides for the coding of Chronic Brain Syndromes with psychotic reaction associated with various diseases and conditions in terms of psychoses of demonstrable etiology under titles 304-308.2 and in titles 020.1, 025, 083.2 and 688.1. It does not provide for coding Chronic Brain Syndrome associated with any disease or condition with neurotic reaction, behavioral reaction or without qualifying phrase except in title 083.1—postencephalitic, personality and character disorders. Nor does it provide for coding acute brain syndrome within the group of psychotic conditions, except alcoholic delirium (included in 307) and exhaustion delirium (included in 309).

In the process of converting the above terms and certain others in the section dealing with Diseases of the Psychobiological Unit to the International equivalent codes, certain amendments and additional 4-digit subdivisions and three special 3-digit codes were set up for use with the Standard Nomenclature only. Since it was necessary to stay within the basic framework of the International Classification, certain limitations were imposed upon the number of additions that could be made. As a result of these limitations, the International Statistical Classification contains some categories which may be too inclusive for adequate tabulation of diagnostic data, especially with respect to diagnostic distribution of patients under treatment in mental hospitals. For example, the categories 307, 308.1 and 308.5 in the International Statistical Classification include the following diagnoses:

- 307. Alcoholic Psychosis, includes
 - (a) Acute Brain Syndrome associated with alcohol intoxication
 - (b) Chronic Brain Syndrome associated with alcohol intoxication with psychotic reaction.

¹ Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death, Vols. I and II, World Health Organization, Geneva, Switzerland, 1948. This may be obtained from Columbia University Press, International Documents Service, 2960 Broadway, New York 27, N. Y.

- 308.1 Psychosis of other demonstrable etiology resulting from epilepsy and other convulsive disorders: includes
- (a) Acute Brain Syndrome with convulsive disorder
 - (b) Chronic Brain Syndrome with convulsive disorder with psychotic reaction.
- 308.5 Acute Brain Syndrome associated with other causes not elsewhere classified includes
- Acute Brain Syndrome associated with:
- (a) Intracranial infection, except encephalitis
 - (b) Drug or poison intoxication, except alcohol
 - (c) Metabolic disturbance
 - (d) Diseases of unknown or uncertain cause.

In order to provide mental hospitals with a scheme that permits detailed tabulation of diagnostic data as well as easy contraction of the detailed classification into summary form, a code suitable for machine tabulation has been devised for the titles in the Psychobiological Unit of the Standard Nomenclature. This is presented in detail at the end of this section. The inclusions for each category are cross-referenced with the appropriate International List and Standard Nomenclature numbers. This code consists of four digits in which the first represents the broad class of mental disorder; the second, major categories within each of these broad classes; the third, subdivisions within major categories; and the fourth, qualifying phrases where applicable.

The new nomenclature is somewhat of a departure from that being used currently in mental hospitals. The use of the terms acute and chronic brain syndromes is new, as well as the use of the qualifying phrases, *with psychotic reaction*, *with neurotic reaction* and *with behavioral reaction*. In addition, the categories dealing with psychoneuroses, psychophysiological autonomic and visceral disorders and personality disorders are considerably expanded over what was included in the 1934 Classification of Mental Disorders. Because of these differences between the 1934 Classification of Mental Disorders and the present one, it is desirable for hospitals to classify diagnoses by both codes for at least a year in order to determine what differences the new classification will effect in their historical statistical series dealing with admissions, discharges and resident patients by diagnosis.

Below is a scheme for presenting tabulations of mental disorder. The arrangement follows essentially the underlying subdivisions of the new nomenclature.

I. Acute Brain Syndromes Associated With:

- Epidemic encephalitis
- Other intracranial infections
- Systemic infections
- Alcohol intoxication
- Drug or poison intoxication, except alcohol
- Trauma
- Circulatory disturbance
- Convulsive disorder
- Disturbance of metabolism, growth or nutrition
- New growth
- Other diseases and conditions, NEC (not elsewhere classified), or unspecified disease or condition

II. Chronic Brain Syndromes With Psychotic Reaction, Associated With:

- Conditions and diseases due to prenatal influence
- Central nervous system syphilis
- Epidemic encephalitis
- Other intracranial infections, except syphilis
- Alcohol intoxication
- Drug or poison intoxication, except alcohol
- Birth trauma
- Other trauma
- Cerebral arteriosclerosis
- Circulatory disturbance other than cerebral arteriosclerosis
- Convulsive disorder
- Senile brain disease
- All other disturbance of metabolism, growth or nutrition
- New growth
- Other diseases and conditions, NEC, or unspecified disease or condition

III. Chronic Brain Syndromes With Neurotic Reaction, Associated With:

- Conditions and diseases due to prenatal influence
- Central nervous system syphilis
- Epidemic encephalitis
- Other intracranial infections, except syphilis

Alcohol intoxication

Drug or poison intoxication, except alcohol

Birth trauma

Other trauma

Cerebral arteriosclerosis

Circulatory disturbance other than cerebral arteriosclerosis

Convulsive disorder

Senile brain disease

All other disturbance of metabolism, growth or nutrition

New growth

Other diseases and conditions, NEC, or unspecified disease or condition

IV. Chronic Brain Syndromes With Behavioral Reactions Associated With:

Conditions and diseases due to prenatal influence

Central nervous system syphilis

Epidemic encephalitis

Other intracranial infections, except syphilis

Alcohol intoxication

Drug or poison intoxication, except alcohol

Birth trauma

Other trauma

Cerebral arteriosclerosis

Circulatory disturbance other than cerebral arteriosclerosis

Convulsive disorder

Senile brain disease

All other disturbance of metabolism, growth or nutrition

New growth

Other diseases and conditions, NEC, or unspecified disease or condition

V. Chronic Brain Syndrome Without Qualifying Phrase Associated With:

Conditions and diseases due to prenatal influence

Central nervous system syphilis

Epidemic encephalitis

Other intracranial infections, except syphilis

Alcohol intoxication

Drug or poison intoxication, except alcohol

Birth trauma
Other trauma
Cerebral arteriosclerosis
Circulatory disturbance other than cerebral arteriosclerosis
Convulsive disorder
Senile brain disease
All other disturbance of metabolism, growth or nutrition
New growth
Other diseases and conditions, NEC, or unspecified disease or condition

VI. Psychotic Disorders

Involutorial psychotic reaction
Affective reactions
Schizophrenic reactions
Paranoid reactions
Psychotic reactions without clearly defined structural change other than above

VII. Psychophysiologic Autonomic and Visceral Disorders

VIII. Psychoneurotic Disorders

IX. Personality Disorders

Alcoholism (addiction)
Drug addiction
All other personality disorders

X. Transient Situational Personality Disorder.

XI. Mental Deficiency

**TABULATING SCHEME BASED ON STRUCTURE OF
NEW NOMENCLATURE WITH CORRESPONDING
STANDARD NOMENCLATURE AND
INTERNATIONAL LIST
NUMBERS**

Code No. ¹	Disorder	Standard Nomenclature	Int'l List Nos.
01-09 ACUTE BRAIN DISORDERS			
01 ACUTE BRAIN SYNDROME ASSOCIATED WITH INFECTION			
01.0	Intracranial infection, except epidemic encephalitis	009-100	308.5 (pt ²)
01.1	Epidemic encephalitis	009-163	083.2 (pt)
01.2	With systemic infection, NEC	000-100	308.3
02	ACUTE BRAIN SYNDROME ASSOCIATED WITH INTOXICATION		
02.1	Alcohol intoxication	000-3312	307 (pt)
02.2	Drug or poison intoxication (except alcohol)	000-3..	308.5 (pt)
03	ACUTE BRAIN SYNDROME ASSOCIATED WITH TRAUMA	000-4..	308.2
04	ACUTE BRAIN SYNDROME ASSOCIATED WITH CIRCULATORY DISTURBANCE	000-5..	308.4
05	ACUTE BRAIN SYNDROME ASSOCIATED WITH CONVULSIVE DISORDER	000-550	308.1 (pt)
06	ACUTE BRAIN SYNDROME ASSOCIATED WITH METABOLIC DISTURBANCE	000-7..	308.5 (pt)

¹ This code consists of four digits in which the first represents the broad class of mental disorder; the second, major categories within each of these broad classes; the third, subdivisions within these major categories; and the fourth, qualifying phrases where applicable. Where no subdivision exists within a major category the third digit should be punched with an "X" punch. Where no qualifying phrase is applicable the fourth digit should also be punched with an "X" punch, except in the Chronic Brain Syndromes where diagnoses without qualifying phrase are coded "0" in the fourth digit.

² The abbreviation "pt" following an International List Number means that the Standard Nomenclature title is only one part of the titles included under the indicated International List Number. For example, International List No. 308.5 Acute Brain Syndrome Associated with Other Causes Not Elsewhere Classified includes the following Standard Nomenclature titles:

Acute Brain Syndrome associated with:

- (a) Intracranial infection, except encephalitis
- (b) Drug or poison intoxication, except alcohol
- (c) Metabolic disturbance
- (d) Diseases of unknown or uncertain cause.

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
07	ACUTE BRAIN SYNDROME ASSOCIATED WITH INTRACRANIAL NEOPLASM	000-8..	308.0
08	ACUTE BRAIN SYNDROME WITH DISEASE OF UNKNOWN OR UNCERTAIN CAUSE	000-900	308.5 (pt)
09	ACUTE BRAIN SYNDROME OF UNKNOWN CAUSE	000-xx0	309.1 (pt)

10-19 CHRONIC BRAIN DISORDERS

10	CHRONIC BRAIN SYNDROME ASSOCIATED WITH DISEASES AND CONDITIONS DUE TO PRENATAL (CONSTITUTIONAL) INFLUENCE		
10.0	With congenital cranial anomaly		
10.00	Without qualifying phrase	009-0..	328.0 (pt)
10.01	With psychotic reaction	009-0...x1	308.8 (pt)
10.02	With neurotic reaction	009-0...x2	319.0 (pt)
10.03	With behavioral reaction	009-0...x3	327.0 (pt)
10.1	With congenital spastic paraplegia		
10.10	Without qualifying phrase	009-016	328.0 (pt)
10.11	With psychotic reaction	009-016.x1	308.8 (pt)
10.12	With neurotic reaction	009-016.x2	319.0 (pt)
10.13	With behavioral reaction	009-016.x3	327.0 (pt)
10.2	With mongolism		
10.20	Without qualifying phrase	009-071	328.0 (pt)
10.21	With psychotic reaction	009-071.x1	308.8 (pt)
10.22	With neurotic reaction	009-071.x2	319.0 (pt)
10.23	With behavioral reaction	009-071.x3	327.0 (pt)
10.3	Due to prenatal maternal infectious diseases		
10.30	Without qualifying phrase	009-052	328.0 (pt)
10.31	With psychotic reaction	009-052.x1	308.8 (pt)
10.32	With neurotic reaction	009-052.x2	319.0 (pt)
10.33	With behavioral reaction	009-052.x3	327.0 (pt)
11	CHRONIC BRAIN SYNDROME ASSOCIATED WITH CENTRAL NERVOUS SYSTEM SYPHILIS		
11.0	Meningoencephalitic		
11.00	Without qualifying phrase	009-147.0	025.9
11.01	With psychotic reaction	009-147.0.x1	025.6
11.02	With neurotic reaction	009-147.0.x2	025.7
11.03	With behavioral reaction	009-147.0.x3	025.8
11.1	Meningovascular		
11.10	Without qualifying phrase	004-147.0	026.9 (pt)
11.11	With psychotic reaction	004-147.0.x1	026.6 (pt)

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
	11.12 With neurotic reaction	004-147.0.x2	026.7 (pt)
	11.13 With behavioral reaction	004-147.0.x3	026.8 (pt)
11.2	Other central nervous system syphilis		
	11.20 Without qualifying phrase	0y0-147.0	026.9 (pt)
	11.21 With psychotic reaction	0y0-147.0.x1	026.6 (pt)
	11.22 With neurotic reaction	0y0-147.0.x2	026.7 (pt)
	11.23 With behavioral reaction	0y0-147.0.x3	026.8 (pt)
12	CHRONIC BRAIN SYNDROME ASSOCIATED WITH INTRACRANIAL INFECTION OTHER THAN SYPHILIS		
	12.0 Epidemic encephalitis		
	12.00 Without qualifying phrase	009-163.0	083.9
	12.01 With psychotic reaction	009-163.0.x1	083.2 (pt)
	12.02 With neurotic reaction	009-163.0.x2	083.7
	12.03 With behavioral reaction	009-163.0.x3	083.1
	12.1 Other intracranial infections		
	12.10 Without qualifying phrase	009-1...0	328.1
	12.11 With psychotic reaction	009-1...0.x1	308.9 (pt)
	12.12 With neurotic reaction	009-1...0.x2	319.1
	12.13 With behavioral reaction	009-1...0.x3	327.1
13	CHRONIC BRAIN SYNDROME ASSOCIATED WITH INTOXICATION		
	13.0 Alcohol intoxication		
	13.00 Without qualifying phrase	009-3312	322.9
	13.01 With psychotic reaction	009-3312.x1	307 (pt)
	13.02 With neurotic reaction	009-3312.x2	322.7
	13.03 With behavioral reaction	009-3312.x3	322.8
	13.1 Drug or poison intoxication, ex- cept alcohol		
	13.10 Without qualifying phrase	009-3...	328.2
	13.11 With psychotic reaction	009-3...x1	308.6
	13.12 With neurotic reaction	009-3...x2	319.2
	13.13 With behavioral reaction	009-3...x3	327.2
14	CHRONIC BRAIN SYNDROME ASSOCIATED WITH TRAUMA		
	14.0 Birth trauma		
	14.00 Without qualifying phrase	009-050	328.3
	14.01 With psychotic reaction	009-050.x1	308.8 (pt)
	14.02 With neurotic reaction	009-050.x2	319.3
	14.03 With behavioral reaction	009-050.x3	327.3

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
14.1	Brain trauma, gross force		
	14.10 Without qualifying phrase	009-4..	328.4 (pt)
	14.11 With psychotic reaction	009-4...x1	308.7 (pt)
	14.12 With neurotic reaction	009-4...x2	319.4 (pt)
	14.13 With behavioral reaction	009-4...x3	327.4 (pt)
14.2	Following brain operation		
	14.20 Without qualifying phrase	009-415	328.4 (pt)
	14.21 With psychotic reaction	009-415.x1	308.7 (pt)
	14.22 With neurotic reaction	009-415.x2	319.4 (pt)
	14.23 With behavioral reaction	009-415.x3	327.4 (pt)
14.3	Following electrical brain trauma		
	14.30 Without qualifying phrase	009-462	328.4 (pt)
	14.31 With psychotic reaction	009-462.x1	308.7 (pt)
	14.32 With neurotic reaction	009-462.x2	319.4 (pt)
	14.33 With behavioral reaction	009-462.x3	327.4 (pt)
14.4	Following irradiational brain trauma		
	14.40 Without qualifying phrase	009-470	328.4 (pt)
	14.41 With psychotic reaction	009-470.x1	308.7 (pt)
	14.42 With neurotic reaction	009-470.x2	319.4 (pt)
	14.43 With behavioral reaction	009-470.x3	327.4 (pt)
14.5	Following other trauma		
	14.50 Without qualifying phrase	009-400	328.4 (pt)
	14.51 With psychotic reaction	009-400.x1	308.7 (pt)
	14.52 With neurotic reaction	009-400.x2	319.4 (pt)
	14.53 With behavioral reaction	009-400.x3	327.4 (pt)
15	CHRONIC BRAIN SYNDROME ASSOCIATED WITH CIRCULATORY DISTURBANCE		
15.0	With cerebral arteriosclerosis		
	15.00 Without qualifying phrase	009-516	328.5
	15.01 With psychotic reaction	009-516.x1	306
	15.02 With neurotic reaction	009-516.x2	319.5
	15.03 With behavioral reaction	009-516.x3	327.5
15.1	With circulatory disturbance other than cerebral arteriosclerosis		
	15.10 Without qualifying phrase	009-5..	328.6
	15.11 With psychotic reaction	009-5...x1	308.9 (pt)
	15.12 With neurotic reaction	009-5...x2	319.6
	15.13 With behavioral reaction	009-5...x3	327.6
16	CHRONIC BRAIN SYNDROME ASSOCIATED WITH CONVULSIVE DISORDER		
	16.00 Without qualifying phrase	009-550	353.9
	16.01 With psychotic reaction	009-550.x1	308.1 (pt)

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
16.02	With neurotic reaction	009-550.x2	353.7
16.03	With behavioral reaction	009-550.x3	353.8
17 CHRONIC BRAIN SYNDROME ASSOCIATED WITH DISTURBANCE OF METABOLISM, GROWTH OR NUTRITION			
17.1	With senile brain disease		
17.10	Without qualifying phrase	009-79x	794.9
17.11	With psychotic reaction	009-79x.x1	304
17.12	With neurotic reaction	009-79x.x2	794.7
17.13	With behavioral reaction	009-79x.x3	794.8
17.2	Presenile brain disease		
17.20	Without qualifying phrase	009-700	328.7
17.21	With psychotic reaction	009-700.x1	305 (pt)
17.22	With neurotic reaction	009-700.x2	319.7
17.23	With behavioral reaction	009-700.x3	327.7
17.3	With other disturbance of metabolism, etc., except presenile brain disease		
17.30	Without qualifying phrase	009-700	328.8
17.31	With psychotic reaction	009-700.x1	308.9 (pt)
17.32	With neurotic reaction	009-700.x2	319.8
17.33	With behavioral reaction	009-700.x3	327.8
18 CHRONIC BRAIN SYNDROME ASSOCIATED WITH NEW GROWTH			
18.0	With intracranial neoplasm		
18.00	Without qualifying phrase	009-8..	328.9 (pt)
18.01	With psychotic reaction	009-8...x1	308.0 (pt)
18.02	With neurotic reaction	009-8...x2	319.9 (pt)
18.03	With behavioral reaction	009-8...x3	327.9 (pt)
19 CHRONIC BRAIN SYNDROME ASSOCIATED WITH DISEASES OF UNKNOWN OR UNCERTAIN CAUSE; CHRONIC BRAIN SYNDROME OF UNKNOWN OR UNSPECIFIED CAUSE			
19.0	Multiple sclerosis		
19.00	Without qualifying phrase	009-900	328.9 (pt)
19.01	With psychotic reaction	009-900.x1	308.9 (pt)
19.02	With neurotic reaction	009-900.x2	319.9 (pt)
19.03	With behavioral reaction	009-900.x3	327.9 (pt)
19.1	Huntington's chorea		
19.10	Without qualifying phrase	009-900	328.9 (pt)
19.11	With psychotic reaction	009-900.x1	308.9 (pt)
19.12	With neurotic reaction	009-900.x2	319.9 (pt)
19.13	With neurotic reaction	009-900.x3	327.9 (pt)

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
19.2	Pick's disease		
	19.20 Without qualifying phrase	009-900	328.9 (pt)
	19.21 With psychotic reaction	009-900.x1	305 (pt)
	19.22 With neurotic reaction	009-900.x2	319.9 (pt)
	19.23 With behavioral reaction	009-900.x3	327.9 (pt)
19.3	Other diseases of unknown or uncertain cause		
	19.30 Without qualifying phrase	009-900	328.9 (pt)
	19.31 With psychotic reaction	009-900.x1	308.9 (pt)
	19.32 With neurotic reaction	009-900.x2	319.9 (pt)
	19.33 With behavioral reaction	009-900.x3	327.9 (pt)
19.4	Chronic brain syndrome of unknown or unspecified cause		
	19.40 Without qualifying phrase	009-xx0	328.9 (pt)
	19.41 With psychotic reaction	009-xx0.x1	309.1 (pt)
	19.42 With neurotic reaction	009-xx0.x2	319.9 (pt)
	19.43 With behavioral reaction	009-xx0.x3	327.9 (pt)

20-24 PSYCHOTIC DISORDERS

20	INVOLUNTIONAL PSYCHOTIC REACTION	000-796	302
21	AFFECTIVE REACTIONS	000-x10	301,309.0
	21.0 Manic depressive reaction, manic type	000-x11	301.0
	21.1 Manic depressive reaction, depressed type	000-x12	301.1
	21.2 Manic depressive reaction, other	000-x13	301.2
	21.3 Psychotic depressive reaction	000-x14	309.0
22	SCHIZOPHRENIC REACTIONS	000-x20	300
	22.0 Schizophrenic reaction, simple type	000-x21	300.0
	22.1 Schizophrenic reaction, hebephrenic type	000-x22	300.1
	22.2 Schizophrenic reaction, catatonic type	000-x23	300.2
	22.3 Schizophrenic reaction, paranoid type	000-x24	300.3
	22.4 Schizophrenic reaction, acute undifferentiated type	000-x25	300.4
	22.5 Schizophrenic reaction, chronic undifferentiated type	000-x26	300.7 (pt)
	22.6 Schizophrenic reaction, schizoaffective type	000-x27	300.6
	22.7 Schizophrenic reaction, childhood type	000-x28	300.8

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
22.8	Schizophrenic reaction, residual type	000-x29	300.5
22.9	Other and unspecified	000-x20	300.7 (pt)
23	PARANOID REACTIONS	000-x30	303
	23.1 Paranoia	000-x31	303 (pt)
	23.2 Paranoid state	000-x32	303 (pt)
24	PSYCHOTIC REACTION WITHOUT CLEARLY DEFINED STRUCTURAL CHANGE OTHER THAN ABOVE	000-xy0	309.1 (pt)

30-39 PSYCHOPHYSIOLOGIC AUTONOMIC AND VISCERAL DISORDERS

30	PSYCHOPHYSIOLOGIC SKIN REACTION	001-580	317.3
31	PSYCHOPHYSIOLOGIC MUSCULOSKELETAL REACTION	002-580	317.4
32	PSYCHOPHYSIOLOGIC RESPIRATORY REACTION	003-580	317.0
33	PSYCHOPHYSIOLOGIC CARDIOVASCULAR REACTION	004-580	315.2
34	PSYCHOPHYSIOLOGIC HEMIC AND LYMPHATIC REACTION	005-580	317.5 (pt)
35	PSYCHOPHYSIOLOGIC GASTROINTESTINAL REACTION	006-580	316.3
36	PSYCHOPHYSIOLOGIC GENITO-URINARY REACTION	007-580	317.1
37	PSYCHOPHYSIOLOGIC ENDOCRINE REACTION	008-580	317.5 (pt)
38	PSYCHOPHYSIOLOGIC NERVOUS SYSTEM REACTION	009-580	318.3 (pt)
39	PSYCHOPHYSIOLOGIC REACTION OF ORGANS OF SPECIAL SENSE	00x-580	317.5 (pt)

40 PSYCHONEUROTIC DISORDERS

40	PSYCHONEUROTIC REACTIONS	000-x00	318.5
	40.0 Anxiety reaction	000-x01	310
	40.1 Dissociative reaction	000-x02	311 (pt)
	40.2 Conversion reaction	000-x03	311 (pt)
	40.3 Phobic reaction	000-x04	312

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
40.4	Obsessive compulsive reaction	000-x05	313
40.5	Depressive reaction	000-x06	314
40.6	Psychoneurotic reaction, other	000-x0y	318.5

50-53 PERSONALITY DISORDERS**50 PERSONALITY PATTERN DISTURBANCE**

50.0	Inadequate personality	000-x41	320.3
50.1	Schizoid personality	000-x42	320.0
50.2	Cyclothymic personality	000-x43	320.2
50.3	Paranoid personality	000-x44	320.1
50.4	Personality pattern disturbance, other	000-x40	320.7

51 PERSONALITY TRAIT DISTURBANCE

51.0	Emotionally unstable personality	000-x51	321.0
51.1	Passive-aggressive personality	000-x52	321.1
51.2	Compulsive personality	000-x53	321.5 (pt)
51.3	Personality trait disturbance, other	000-x5y	321.5 (pt)

52 SOCIOPATHIC PERSONALITY DISTURBANCE

52.0	Antisocial reaction	000-x61	320.4
52.1	Dysssocial reaction	000-x62	320.5
52.2	Sexual deviation	000-x63	320.6
52.3	Alcoholism (addiction)	000-x641	322.1
52.4	Drug addiction	000-x642	323

53 SPECIAL SYMPTOM REACTION

53.0	Learning disturbance	000-x71	326.0
53.1	Speech disturbance	000-x72	326.2
53.2	Enuresis	000-x73	321.3
53.3	Somnambulism	000-x74	321.4 (pt)
53.4	Other	000-x7y	321.4 (pt)

54 TRANSIENT SITUATIONAL PERSONALITY DISORDERS**54 TRANSIENT SITUATIONAL PERSONALITY DISTURBANCE**

54.0	Gross stress reaction	000-x81	326.3
54.1	Adult situational reaction	000-x82	326.6
54.2	Adjustment reaction of infancy	000-x83	324.0
54.3	Adjustment reaction of childhood	000-x84	324.1
54.4	Adjustment reaction of adolescence	000-x85	324.2
54.5	Adjustment reaction of late life	000-x86	326.5
54.6	Other transient situational personality disturbance	000-x80	326.4

Code No.	Disorder	Standard Nomenclature	Int'l List Nos.
60-62 MENTAL DEFICIENCIES			
60	MENTAL DEFICIENCY (FAMILIAL OR HEREDITARY)		
60.0	Mild	000-x901	325.3 (pt)
60.1	Moderate	000-x902	325.2 (pt)
60.2	Severe	000-x903	325.1 (pt)
60.3	Severity not specified	000-x90	325.5 (pt)
61	MENTAL DEFICIENCY, IDIOPATHIC		
61.0	Mild	000-y901	325.3 (pt)
61.1	Moderate	000-y902	325.2 (pt)
61.2	Severe	000-y903	325.1 (pt)
61.3	Severity not specified	000-y90	325.5 (pt)

The following codes are to be used as the qualifying phrase x4 and will be coded as separate diagnoses. They represent mental deficiency by grades of severity, associated with and as the major symptom in impairment of brain tissue function.

62 MENTAL DEFICIENCY (x4)

62.0	Severe	325.6 *
62.1	Moderate	325.7
62.2	Mild	325.8
62.3	Severity not specified	325.9

* If Mongolism is specified, code 325.4

APPENDIX A §

APPENDIX TO THE STANDARD NOMENCLATURE AND INTERNATIONAL STATISTICAL CLASSIFICATION¹

The Appendix lists in numerical order the whole International Statistical Classification (numbers at left, in italics) together with the Standard numbers which are included in each International number. There are also included many notes and explanations designed to make it easier to find the correct equivalent International numbers for Standard terms listed in the body of the book.

The following items of general application are important but others throughout the International Statistical Classification as here listed are essential also.

Special Use of Asterisk

* An asterisk on any International number in the sections, Nomenclature of Diseases and Supplementary terms (pp. 85-505), and in Standard etiologic categories, 1, 2, and 3 (pp. 51-62) indicates that some further explanation is given about that International category in the Appendix.

Symbols and Abbreviations Used in the Appendix

† Indicates some further explanation about this category but it does not change the content or code number of any International category.

†† Indicates an additional 4th digit subdivision to an existing International 3-digit code number which should be earmarked as not part of the official International Classification in any publication of statistics based on this number. The same symbol is used to indicate the following 3-digit codes used in the same way and with the same publication practice: 319, 327, and 328, each of which has the same ten subdivisions, .0-.9.

** Indicates an International category for which there is no directly expressed Standard equivalent. It usually supplies additional detail as to site, type, etc., and is to be used if specified in the diagnosis.

NOS—not otherwise specified. Used when site, etiology, or other item which should be specified has been omitted.

NEC—not elsewhere classified. Used when the term is complete but the disease or injury can be classified in the International only in an indefinite category such as "all other" diseases of a given broad type. These abbreviations are used to avoid repetition of the longer phrases for which they stand.

Statistical Classification and Nomenclature

Classification is fundamental to the quantitative study of any phenomenon. It is recognized as the basis of all scientific generalization and is therefore an essential element in statistical methodology. Uniform definitions and uniform systems of classification are prerequisites in the advancement of scientific knowledge. In the study of illness and death, therefore, a standard classification of disease and injury for statistical purposes is essential.²

¹ Reprinted from "Standard Nomenclature of Diseases and Operations," Fourth Edition, published for American Medical Association, The Blakistone Co., Philadelphia, 1952.

² "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death," Adopted 1948; Volume 1, Tabular List with Inclusions; Volume 2, Alphabetical Index. World Health Organization, Geneva, Switzerland. Available in English, French, and Spanish. American agents for Manual: Public Health Conference on Records and Statistics, c/o National Office of Vital Statistics, Washington 25, D. C.; Pan American Sanitary Bureau, Washington 25, D. C.; Columbia University Press, International Documents Service, 2690 Broadway, New York 27, New York.

³ From the Introduction (pp. xi-xiii) to the "Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death," Volume 1. World Health Organization, Geneva, Switzerland, 1948.

The purpose of a statistical classification is often confused with that of a nomenclature. Basically a medical nomenclature is a list or catalogue of approved terms for describing and recording clinical and pathological observations. To serve its full function, it should be extensive, so that any pathological condition can be accurately recorded. As medical science advances, a nomenclature must expand to include new terms necessary to record new observations. Any morbid condition that can be specifically described will need a specific designation in a nomenclature.²

This complete specificity of a nomenclature prevents it from serving satisfactorily as a statistical classification. When one speaks of statistics, it is at once inferred that the interest is in a group of cases and not in individual occurrences. The purpose of a statistical compilation of disease data is primarily to furnish quantitative data that will answer questions about groups of cases.²

A statistical classification of disease must be confined to a limited number of categories which will encompass the entire range of morbid conditions. The categories should be chosen so that they will facilitate the statistical study of disease phenomena. A specific disease entity should have a separate title in the classification only when its separation is warranted because the frequency of its occurrence, or its importance as a morbid condition, justifies its isolation as a separate category. On the other hand, many titles in the classification will refer to groups of separate but usually related morbid conditions. Every disease or morbid condition, however, must have a definite and appropriate place as an inclusion in one of the categories of the statistical classification. A few items of the statistical list will be residual titles for other and miscellaneous conditions which cannot be classified under the more specific titles. These miscellaneous categories should be kept to a minimum.²

The construction of a practical scheme of classification of disease and injury for general statistical use involves various compromises. Efforts to provide a statistical classification upon a strictly logical arrangement of morbid conditions have failed in the past. The various titles will represent a series of necessary compromises between classifications based on etiology, anatomical site, and circumstance of onset, as well as the quality of information available on medical reports. Adjustments must also be made to meet the varied requirements of vital statistics offices, hospitals of different types, medical services of the armed forces, social insurance organizations, sickness surveys, and numerous other agencies. While no single classification will fit the specialized needs for all these purposes, it should provide a common basis of classification for general statistical use.²

The above paragraphs are taken from the Introduction to the International Statistical Classification of Diseases, Injuries, and Causes of Death, 1948. That list represents the result of much thought and work on the part of many committees and subcommittees, and an assembly of representatives of various countries throughout the world. For the most part these representatives were skilled in statistical methods and the classification of diseases and causes of death for statistical purposes. The two-volume book includes not only a numerical listing of the disease and accident categories with a list of representative diseases and injuries included under each title, but an extensive alphabetical index of diseases and injuries with the proper code number attached.

Although this International Classification is not infrequently designated as a nomenclature, it is not and was not intended to serve as a nomenclature. The function of a nomenclature is to train the medical student and practicing physician to use the clearest and most acceptable diagnostic terms to describe a particular clinical case; the function of this coding manual is to aid a capable diagnosis coder or record librarian, with occasional medical advice, to assign the terms and disease names used by the attending

physician to the proper category in the list for the purpose of statistical tabulations. The better the nomenclature the more accurate will be the assignment of diagnoses for statistical purposes.⁸

The index to the International Classification includes both good and poor terminology because all diagnoses must be given a code number even when the assignment is to an ill-defined or completely unknown cause. It is designed to help a diagnosis coder after the physician has determined the diagnosis to his satisfaction and has recorded it in the proper hospital, clinic, or private records.

Conversion of Standard Numbers into International Classification Numbers

Some description of the details of the conversion process should be given. The corresponding International number appears in parentheses and in italics at the right of the Standard title. Usually there will be only one International number for a given Standard term, but occasionally there will be two International numbers, and for neoplasms a few categories have three such numbers. Obviously some footnotes of explanation are needed but to avoid confusion between notes pertaining to the Standard and those pertaining to the International Classification, all such explanations pertaining to International numbers appear in this Appendix (pp. 847-1034).

An asterisk on any number in the body of the Standard means to refer to that International number as it appears in the Appendix for notes and explanations that may affect the International number to be assigned. Probably the most frequent type of explanation refers to what may be designated as "open-end terms" where some item must be supplied by the attending physician before the term can be coded. Any such "open-end terms" can be given only a more or less ill-defined International number until the missing information is supplied. Reference to the International number in the Appendix supplies one or more other International numbers which may be appropriate and the one selected will depend upon the information supplied by the attending physician.

Uses for the Cross-Classification of Numbers in the Two Systems

The Standard Nomenclature is set up for use by physicians, specialists, and hospitals to secure standard and uniform terminology in the diagnosis of the diseases of individual patients. For that purpose it must be detailed and specific, because the attending physician must record the specific disease which he is treating and cannot be satisfied with knowing only the general or semispecific category of diseases of this kind.

The very specificity and detail of a nomenclature makes it cumbersome as a list of diseases for use in statistical tabulations. As already noted, statistical analysis deals with groups of patients rather than individual therapeutic problems. The clinician's problem is the individual patient but the problems of the epidemiologist and statistician are the "herd" or group, and in studying an outbreak of typhoid, influenza, typhus, or cholera, their problem is to find the source of the infection and its mode of spread so the epidemic can be stamped out. In this work they want data on groups of persons and they are more quickly summarized in the form of the International Statistical Classification. With the conversion of the detailed Standard Nomenclature into the shorter International Statistical Classification arranged especially for statistical purposes, one can have the advantages of careful and detailed individual diagnoses classified into useful categories for statistical analysis. Some hospitals and institutions are already converting their records of Standard diagnoses into the International Statistical Classi-

⁸ In part from "Manual for Coding Causes of Illness," Miscellaneous Publication No. 32 of the U. S. Public Health Service. Government Printing Office, Washington, 1944.

fication for statistical analysis. This dual Standard Manual will make that job much easier, and for those hospitals which record diagnoses on punchcards, both the Standard and the International Statistical Classification numbers can be put on the same card for use of the data according to either classification.

As already noted, the International numbers with their titles are listed in numerical order in the Appendix. With each International number and title there is listed every Standard number to which that particular International number has been assigned. A single International code, such as 753.1—"Other congenital malformations of the nervous system and sense organs," includes a considerable number of Standard diagnosis numbers. This situation arises because the Standard lists a different number and title for each specific diagnosis whether it occurs frequently or infrequently, whereas the International Statistical Classification puts many similar but infrequent diagnoses into one category.

V. MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS

(†† For mental disorders classified elsewhere, *see*
Titles 020, 025, 026, 083, 353, 688.1, and 794.)

The International Classification, 1948 Revision, provides for the coding of Chronic Brain Syndrome with psychotic reaction associated with various diseases and conditions in terms of Psychoses of Demonstrable Etiology, under titles 304-308.2, and in titles 020.1, 025, 083.2, and 688.1. It does not provide for coding Chronic Brain Syndrome associated with any disease or condition with neurotic reaction, behavioral reaction, or without qualifying phrase, except in title 083.1—postencephalitic personality and character disorders. Nor does it provide for coding Acute Brain Syndrome, or acute temporary recoverable mental disturbances, within the group of psychotic conditions, except alcoholic delirium (included in 307) and exhaustion delirium (included in 309).

Adjustments In The International Classification To Provide Equivalents For Standard Terms

In the process of converting the revised terminology in Section O—Diseases of the Psychobiological Unit—to the International equivalent codes, certain amendments and additional 4th digit subdivisions and three special 3-digit codes (319, 327, and 328) have been set up, for use with the Standard Nomenclature only. Without these new subdivisions and codes it seemed impossible to maintain the concepts of the Psychobiological Unit of the Standard Nomenclature.

These codes (with ††), (p. 847) and any others which are in addition to or an expansion of the existing International codes, should always be indicated as being such in published tabulations making use of them. They are listed, also, in their numerical position throughout the appendix with the Standard code numbers to which they are equivalent.

Agencies who so desire may code also the physical conditions or diseases giving rise to the various types of mental reactions.

020.1 *Juvenile neurosyphilis*

Includes chronic brain syndrome with psychotic reaction due to juvenile neurosyphilis.

- ††020.7 *Chronic brain syndrome with neurotic reaction*
- ††020.8 *Chronic brain syndrome with behavioral reaction*
- ††020.9 *Chronic brain syndrome NOS*

} due to
} juvenile
} neurosyphilis

††025.0 General paralysis of insane, except as below

- ††025.6 Chronic brain syndrome with psychotic reaction**
- ††025.7 Chronic brain syndrome with neurotic reaction**
- ††025.8 Chronic brain syndrome with behavioral reaction**
- ††025.9 Chronic brain syndrome NOS**

} due to
syphilitic
meningo-
encephalitis

††026.0 Other syphilis of central nervous system except as below

- ††026.6 Chronic brain syndrome with psychotic reaction**
- ††026.7 Chronic brain syndrome with neurotic reaction**
- ††026.8 Chronic brain syndrome with behavioral reaction**
- ††026.9 Chronic brain syndrome NOS**

} due to me-
ningo-vascular
and other
syphilis of
central nerv-
ous system

083.1 Postencephalitic personality and character disorders

Includes chronic brain syndrome with behavioral reaction.

083.2 Postencephalitic psychosis

Includes acute brain syndrome or chronic brain syndrome with psychotic reaction.

††083.7 Chronic brain syndrome with neurotic reaction, postencephalitic

††083.9 Chronic brain syndrome NOS, postencephalitic

300 Schizophrenic disorders

- ††300.7 Other and unspecified except childhood type**
- ††300.8 Childhood type**

301 Manic-depressive reaction

301.1 Depressive

†† Excludes Melancholia NOS and Psychotic depressive reaction NOS (††309.0).

Titles 304-308.2 include acute brain syndrome or chronic brain syndrome with psychotic reaction associated with the diseases and conditions in those titles. They exclude chronic brain syndrome due to those conditions with neurotic reaction, behavioral reaction, or without qualifying phrase (††319, ††322, ††327, ††328, ††353, ††794, with the appropriate 4th digit). Titles 305, 308.1 have been amended, and 308.2 has been expanded, as follows:

305 Presenile psychosis

†† Excludes conditions assigned to this title (Alzheimer's disease, Circumscribed atrophy of brain, Pick's disease of brain, Presenile sclerosis): with neurotic reaction (††319.7); with behavioral reaction (††327.7); and NOS (††328.7).

308.1 Resulting from epilepsy and other convulsive disorders

†† Includes acute brain syndrome (automatism, furor, clouded state, psychic equivalent, etc.), and chronic brain syndrome with psychotic reaction, due to epilepsy and other convulsive disorders.

††308.2 Acute brain syndrome associated with trauma

††308.3 Acute brain syndrome associated with systemic infection, NEC

††308.4 Acute brain syndrome associated with disturbance of circulation

Note: In rare cases when the additional diagnosis is cerebral arterio-sclerosis the cases should be coded to 306.

- ††308.5 Acute brain syndrome associated with other causes, NEC**
 Excludes acute brain syndrome of unknown or unspecified cause (††309.1).
- ††308.6 Chronic brain syndrome with psychotic reaction associated with exogenous poison, except alcohol**
- ††308.7 Chronic brain syndrome with psychotic reaction associated with trauma, except birth trauma**
- ††308.8 Chronic brain syndrome with psychotic reaction associated with birth trauma and diseases due to prenatal influence**
- ††308.9 Chronic brain syndrome with psychotic reaction associated with other causes, NEC**
 Excludes chronic brain syndrome with psychotic reaction of unknown or unspecified cause (††309.1).
- 309 Other and unspecified psychoses**
- ††309.0 Psychotic depressive reactions NOS**
 Includes Melancholia NOS
- ††309.1 Other and unspecified psychoses**
 †† Includes acute brain syndrome or chronic brain syndrome with psychotic reaction of unknown or unspecified cause.
 †† Excludes mental deterioration NOS and chronic brain syndrome NOS (††328.9).
- ††319 Chronic brain syndrome with neurotic reaction**
- ††327 Chronic brain syndrome with behavioral reaction**
- ††328 Chronic brain syndrome NOS**
 The following 4th digit subdivisions are to be used with ††319, ††327, or ††328 to indicate the associated disease or condition:
- .0 Associated with diseases and conditions due to prenatal influence
 - .1 Associated with intracranial infection, NEC
 - .2 Associated with drug or poison, except alcohol
 - .3 Associated with birth trauma
 - .4 Associated with other trauma
 - .5 Associated with cerebral arteriosclerosis
 - .6 Associated with other circulatory disturbance
 - .7 Associated with presenile brain disease
 - .8 Associated with other disturbance of metabolism, growth, or nutrition
 - .9 Associated with other diseases and conditions, NEC, or unspecified disease or condition
- 321.1 Passive dependency**
 †† Includes passive-aggressive personality.
- 321.4** † Includes special symptom reactions NEC, personality disorder.
- 321.5** † Includes personality trait disturbance, other and unspecified.
- 322 Alcoholism**
- | | | |
|--|---|-----|
| ††322.7 Chronic brain syndrome with neurotic reaction | } | due |
| ††322.8 Chronic brain syndrome with behavioral reaction | | to |
| ††322.9 Chronic brain syndrome NOS | | |
- 324 Primary childhood behaviour disorders**
 †† The age limits herein specified are to be used in coding only in the absence of a complete diagnosis by the clinician.
- ††324.0 In infancy (under 2 years)**
- ††324.1 In childhood (2-11 years)**

300.2 Catatonic type

000-x23

939

300.3 Paranoid type

000-x24

300.4 Acute schizophrenic reaction

000-x25

300.5 Latent schizophrenia

000-x29

300.6 Schizo-affective psychosis

000-x27

††300.7 Other and unspecified, except childhood type

000-x20

000-x26

See also notes preceding Title 300.**††300.8 Childhood type**

000-x28

See also notes preceding Title 300.**301 Manic-depressive reaction**

This title excludes neurotic-depressive reaction (314).

301.0 Manic and circular

000-x11

037

301.1 Depressive

000-x12

†† Excludes Melancholia NOS and Psychotic depressive reaction NOS (††309.0).

See also notes preceding Title 300.**301.2 Other**

000-x10

000-x13

302 Involutional melancholia

000-796

303 Paranoia and paranoid states

000-x30

000-x31

000-x32

Titles 304-308: *See also* notes preceding Title 300.**304 Senile psychosis****

†† Excludes chronic brain syndrome, nonpsychotic, due to senility (††794.7-††794.9).

305 Presenile psychosis**

†† Excludes chronic brain syndrome, nonpsychotic, due to presenile brain disease (††319.7, ††327.7, ††328.7).

306 Psychosis with cerebral arteriosclerosis**

†† Excludes chronic brain syndrome, nonpsychotic, due to cerebral arteriosclerosis (††319.5, ††327.5, ††328.5).

307 Alcoholic psychosis

000-33122

000-33123

000-3312

†† This title excludes alcoholic addiction without psychosis (322.0-322.2) and chronic brain syndrome, nonpsychotic, due to alcohol (††322.7-††322.9).

308 Psychosis of other demonstrable etiology*308.0 Resulting from brain tumour*

000-8..

308.1 Resulting from epilepsy and other convulsive disorders

000-550	072	074
071	073	930-x0x

†† Includes acute brain syndrome (automatism, furor, clouded state, psychic equivalent, etc.) and chronic brain syndrome with psychotic reaction, due to epilepsy and other convulsive disorders.

†† This title excludes epilepsy without psychosis (353.0-353.3), and chronic brain syndrome, nonpsychotic, due to epilepsy (††353.7-††353.9).

†† 308.2 Acute brain syndrome, associated with trauma

000-4..

††308.3 Acute brain syndrome associated with systemic infection NEC

000-100

††308.4 Acute brain syndrome associated with disturbance of circulation

000-5..

††308.5 Acute brain syndrome associated with other causes, NEC

000-3.. 000-900

000-7.. 009-100

†† Excludes acute brain syndrome of unknown or unspecified cause (††309.1).

*†† 308.6 Chronic brain syndrome with psychotic reaction associated with exogenous poison, except alcohol****†† 308.7 Chronic brain syndrome with psychotic reaction associated with trauma****†† 308.8 Chronic brain syndrome with psychotic reaction associated with birth trauma and diseases due to prenatal influence****†† 308.9 Chronic brain syndrome with psychotic reaction associated with other causes NEC***

†† Excludes chronic brain syndrome with psychotic reaction of unknown or unspecified cause (††309.1).

309 Other and unspecified psychoses

See also notes preceding Title 300.

††309.0 Psychotic depressive reaction NOS

000-x14

††309.1 Other and unspecified psychoses

000-xx0	014	922
---------	-----	-----

000-xy0	910	926
---------	-----	-----

† Code ill-defined mental conditions to 318.5 or 326.4 if psychoneurosis, NEC, or behavioral reaction, NEC, is indicated.

PSYCHONEUROTIC DISORDERS (310-318, ††319)

Numbers 310-318, ††319, exclude simple adult maladjustment (††326.6) and nervousness and debility (790).

310 Anxiety reaction without mention of somatic symptoms

000-x01	083
059	084

311 Hysterical reaction without mention of anxiety reaction

000-x02	20x	936
000-x03	272-555	942
018	902	

312 Phobic reaction

000-x04
087

313 Obsessive-compulsive reaction

000-x05	078	090
013	079	091
056	086	092
066	088	093
067	089	908
069	08x	

314 Neurotic-depressive reaction

000-x06

†† This title excludes manic-depressive reaction (301), and psychotic-depressive reaction NOS (††309.0).

315 Psychoneurosis with somatic symptoms (somatization reaction) affecting circulatory system

This title excludes functional heart disease (433) unless specified as psychogenic.

315.0 *Neurocirculatory asthenia***

315.1 *Other heart manifestations specified as of psychogenic origin***

315.2 *Other circulatory manifestations of psychogenic origin*

004-580

316 Psychoneurosis with somatic symptoms (somatization reaction) affecting digestive system

This title excludes ulcer of stomach (540) and of duodenum (541). It excludes functional disorders of oesophagus (539.0), of stomach (544), and of intestines (573) unless specified as psychogenic.

316.0 *Mucous colitis specified as of psychogenic origin***

316.1 *Irritability of colon specified as of psychogenic origin***

316.2 *Gastric neuroses***

316.3 *Other digestive manifestations specified as of psychogenic origin*

006-580
617

317 Psychoneurosis with somatic symptoms (somatization reactions) affecting other systems

317.0 Psychogenic reactions affecting respiratory system

003-580

317.1 Psychogenic reactions affecting genito-urinary system

007-580

034

† Excludes masturbation in children (††324.0-††324.3).

*317.2 Pruritus of psychogenic origin***

317.3 Other cutaneous neuroses

001-580

317.4 Psychogenic reactions affecting musculoskeletal system

002-580

317.5 Psychogenic reactions affecting other systems

005-580

008-580

00x-580

318 Psychoneurotic disorders, other, mixed, and unspecified types

*318.0 Hypochondriacal reaction***

318.1 Depersonalization

080

318.2 Occupational neurosis

27x-432

9227

318.3 Asthenic reaction

009-580

*318.4 Mixed***

This title excludes mixed anxiety and hysterical reactions (310).

318.5 Of other and unspecified types

000-x00

7x2-555^s

937

000-x0y

925

098

930-550.x

††319 Chronic brain syndrome with neurotic reaction**

See also notes preceding Title 300.

††319.0 Associated with diseases and conditions due to prenatal influence

††319.1 Associated with intracranial infection, NEC

††319.2 Associated with drug or poison, except alcohol

††319.3 Associated with birth trauma

††319.4 Associated with other trauma

††319.5 Associated with cerebral arteriosclerosis

††319.6 Associated with other circulatory disturbance

††319.7 Associated with presenile brain disease

††319.8 Associated with other disturbance of metabolism, growth, or nutrition

††319.9 Associated with other diseases and conditions NEC, or unspecified disease or condition

DISORDERS OF CHARACTER, BEHAVIOUR, AND INTELLIGENCE
(320-326, ††327, ††328)

See also notes preceding Title 300.

320 Pathological personality

320.0 Schizoid personality

000-x42

041

320.1 Paranoid personality

000-x44

040

081

This title excludes paranoia and paranoid states (303).

320.2 Cyclothymic personality

000-x43

320.3 Inadequate personality

000-x41

320.4 Antisocial personality

000-x61	03x
---------	-----

029	044
-----	-----

320.5 Asocial personality

000-x62	047	049
---------	-----	-----

046	048	055
-----	-----	-----

† Excludes childhood behavior problems (††324.0-††324.3).

320.6—Sexual deviation

000-x63	057	062
---------	-----	-----

036	060	068
-----	-----	-----

039	061	082
-----	-----	-----

320.7 Other and unspecified

000-x40	026
---------	-----

000-x60	027
---------	-----

321 Immature personality

321.0 Emotional instability

000-x51

043

321.1 Passive dependency

000-x52

050

†† Includes passive-aggressive personality.

321.2 Aggressiveness

†† See title ††321.1.

321.3 Enuresis characterizing immature personality

000-x73

321.4 Other symptomatic habits except speech impediments

000-x70

000-x74

000-x7y

† Includes special symptom reaction NEC, personality disorder.

321.5 Other and unspecified

000-x50

000-x53

000-x5y

† Includes personality trait disturbance other and unspecified.

322 Alcoholism

This title excludes alcoholic psychosis (307), and acute poisoning by alcohol (961).

For primary cause classification it excludes cirrhosis of liver with alcoholism (581.1).

322.0 Acute

011-332

322.1 Chronic

000-x641 076

011-3312 410-3312

322.2 Unspecified

075

†† 322.7 Chronic brain syndrome with neurotic reaction due to alcohol**

†† 322.8 Chronic brain syndrome with behavioral reaction due to alcohol**

†† 322.9 Chronic brain syndrome NOS due to alcohol

009-3312

323 Other drug addiction

000-x642

011-3217

058

324 Primary childhood behaviour disorders

† Any term coded 324 occurring in adults (ages 20 and over) should be coded to 320, 321 according to type: cruelty (sexual) 320.6; stealing 320.5, etc.

†† The age limits herein specified are to be used only in the absence of a complete diagnosis by the clinician.

†† 324.0 In infancy (under 2 years)

000-x83

†† 324.1 In childhood (2-11 years)

000-x841 000-x843

000-x842 000-x84

†† 324.2 In adolescence (12-19 years)

000-x85

†† 324.3 Period not specified

030 045 053

031 04x 054

032 051

033 052

325 Mental deficiency*Idiopathic or hereditary (325.0-325.5):***325.0 Idiocy******†† Includes severe mental deficiency (I.Q. under 20).****325.1 Imbecility**

000-x903

000-y903

†† Includes severe mental deficiency (I.Q. under 50, except as in 325.0 and 325.4).**325.2 Moron**

000-x902

000-y902

921

†† Includes moderate mental deficiency (I.Q. from 50 to 69).**325.3 Borderline intelligence**

000-x901

000-y901

†† Includes mild mental deficiency (I.Q. from 70 to 85).**325.4 Mongolism**

010-071

x20-071^s**325.5 Other and unspecified types**

000-x90	902-755	x25-996
000-y90	91x	x27-996
902-7551	9301	x28-996
902-7552	x25-9111	

†† Includes mental deficiency, severity not specified.**†† Associated with specified brain impairments (††325.6-††325.9). (See also notes preceding Title 300).****††325.6 Severe (I.Q. under 50)****

If Mongolism is specified, code 325.4.

††325.7 Moderate (I.Q. from 50 to 69)****††325.8 Mild (I.Q. from 70 to 85)******††325.9 Severity not specified******326 Other and unspecified character, behaviour, and intelligence disorders****326.0 Specific learning defects**

000-x71	951	992
932-0453	952	x124
932-0454	958	
932-0455	974	

This title includes alexia (word blindness) and agraphia of unspecified or nonorganic origin.

† Any term coded 326.0 will be coded 781.6 if secondary to organic lesion.

† Excludes word deafness (326.2).

326.1 Stammering and stuttering of nonorganic origin

9302

This title includes any condition in 781.5 of unspecified or nonorganic origin.

† Any term coded 326.1 will be coded 781.5 if secondary to organic lesion.

326.2 Other speech impediments of nonorganic origin

000-x72	954	9562
928	9550	9563
9303	9551	9564
9304	9552	957
932-452	9553	95x
932-456	9554	971
932-458	9555	973
946	9557	x03
9501	9558	
950	955x	
953	9561	

† This title includes any condition in 781.6 of unspecified or nonorganic origin, except specific learning defects (326.0).

† Any term coded 326.2 will be coded 781.6 if secondary to organic lesion.

326.3 Acute situational maladjustment

000-x81

†† Includes "Gross stress reaction."

†† Excludes abnormal excitability under minor stress (321.0).

326.4 Other and unspecified except as below

000-x80	90x	932-045
019	932-0451	
608	932-0457	

†† 326.5 Adjustment reaction of late life (ages 65 and over)

000-x86

The age limits specified in this title and in ††326.6 are to be used in coding only in the absence of a complete diagnosis by the clinician.

†† 326.6 Adult situational reaction (ages 20 and over)

000-x82

Includes simple adult maladjustment.

Excludes adjustment reaction of late life (††326.5).

†† 327 Chronic brain syndrome with behavioral reaction*

See also notes preceding Title 300.

†† 327.0 Associated with diseases and conditions due to prenatal influence**†† 327.1 Associated with intracranial infection, NEC****†† 327.2 Associated with drug or poison, except alcohol****†† 327.3 Associated with birth trauma****†† 327.4 Associated with other trauma****†† 327.5 Associated with cerebral arteriosclerosis****†† 327.6 Associated with other circulatory disturbance****†† 327.7 Associated with presenile brain disease****†† 327.8 Associated with other disturbance of metabolism, growth or nutrition****†† 327.9 Associated with other diseases and conditions NEC, or unspecified disease or condition****†† 328 Chronic brain syndrome NOS**

See also notes preceding Title 300.

††328.0	<i>Associated with diseases and conditions due to prenatal influence</i>	
009-016	009-071	
009-052	009-0..	
††328.1	<i>Associated with intracranial infection, NEC</i>	
009-1...0		
††328.2	<i>Associated with drug or poison, except alcohol</i>	
009-3..		
009-300		
††328.3	<i>Associated with birth trauma</i>	
009-050		
††328.4	<i>Associated with other trauma</i>	
009-415	009-462	009-4..
009-420	009-470	
††328.5	<i>Associated with cerebral arteriosclerosis</i>	
009-516		
††328.6	<i>Associated with other circulatory disturbance</i>	
009-5..		
††328.7	<i>Associated with presenile brain disease</i>	
930-796		
939-910		
††328.8	<i>Associated with other disturbance of metabolism, growth or nutrition</i>	
009-700		
††328.9	<i>Associated with other diseases and conditions NEC, or unspecified disease or condition</i>	
009-8..	009-xx0	908-992
009-900	908-953	923

† Excludes Huntington's chorea NOS (355).

APPENDIX B

DISEASES OF THE PSYCHOBIOLOGIC UNIT¹ OF THE NOMENCLATURE OF DISEASE

Psychiatrists and members of associated specialties have considered for many years that the psychiatric nomenclature was inadequate for their needs. The American Psychiatric Association undertook to revise the psychiatric terminology. The efforts of this Association and its members assisted by advice and council of interested individuals, culminated in the establishing of the "Diagnostic and Statistical Manual for Mental Disorders" (American Psychiatric Association) in the early part of 1951. During the development of the manual, the editors and the committee on psychiatry of the Standard Nomenclature of Diseases and Operations and the committee assigned the task of developing the mentioned manual were in frequent communication and association. Through their cooperative activities, the psychiatric nomenclature as listed in the manual was included in the "Fourth" edition of the Standard Nomenclature of Diseases and Operations. This resulted in a radical revision of section 0 "Diseases of the Psychobiologic Unit" of the Nomenclature of Disease.

The major change, of course, was the substitution of the newly accepted terminology for the old. Many of the new terms were broader in scope than the old to conform to the basic thinking among psychiatrists that some disorders or reactions formerly considered as separate clinical entities are really expressions of a single disease. This concept of unity is characteristic of the new terminology. Hence a rubric assigned to a new term may include two or more rubrics of former editions. This is not a violation of the basic principle of Standard that a rubric is specific for one clinical entity, but is acknowledgement of the basic holistic implications of many psychiatric disorders or reactions. For example, the "Fourth" edition has the entity 006-580 Psychophysiologic gastrointestinal reaction which includes the three listings of previous editions of 640-550 Gastric neurosis, 604-550 Intestinal neurosis, and 668-550 Rectal neurosis. These neuroses are now considered to be allied clinical expressions of the same psychophysiological autonomic disorder.

A second change is the division of a former Standard rubric into two or more rubrics, thus permitting more refined or detailed classification. An excellent example of this change is the division of the entity of the Third edition, 003-516 Psychosis with cerebral arteriosclerosis. In the "Fourth" edition this entity may be classified into four items, the basic category being chronic brain syndrome associated with cerebral arteriosclerosis 009-516. When the clinical picture is significantly altered by superimposed symptoms, the addition of a qualifying phrase (.x1 with psychotic reaction; .x2 with neurotic reaction; .x3 with behavior reaction) provides three additional rubrics.

This change is one of the most significant in this revision as it provides for the flexibility and variation which is so necessary in a psychiatric nomenclature classification.

The basic construction pattern of the Nomenclature of Disease has not been changed. The diseases of the psychobiologic unit are grouped in divisions cor-

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responding to the categories of the etiologic classification and the listing of the clinical entities within the divisions follow the alphabetic arrangement. However, decimal digits with their usually assigned definitions are not used in association with diseases of the psychobiologic unit with the exception of the decimal digit x, disturbance of function and the decimal digit .0 to denote chronic infection.

The decimal digit x is used to denote disturbance of function but has been qualified by the addition of a digit in the second decimal place with assigned definition as follows: .x1 with psychotic reaction; .x2 with neurotic reaction; .x3 with behavior reaction; and .x4 with mental deficiency. These qualifying phrases may be added to any diagnosis in the psychobiologic unit when needed to further define, describe or clarify the clinical picture. Care must be exercised in their utilization to prevent redundancy. For example, .x1 with psychotic reaction would be redundant when used with a diagnosis listed under psychotic disorders; .x2 would be redundant when used with a diagnosis listed under the psychoneurotic disorders; .x3 when used with a diagnosis of a personality disorder and .x4 when used with the diagnosis of mental deficiency. The use of these decimal combinations may be clarified by considering the use of decimal digit x4 as it relates (1) to a diagnosis other than mental deficiency and (2) to the diagnosis mental deficiency per se.

The rubrics of the diseases of the psychobiologic unit may be qualified by the addition of the decimal digit x4 when necessary to denote mental deficiency as associated with the primary disease. For example, the clinical condition "Chronic brain syndrome associated with trauma" is coded as 009-4.. If mental deficiency is the major symptom of the disorder and it is desired to indicate this in the diagnosis, the decimal digit x4 may be added to the basic code number, thus, 009-4...x4. Chronic brain syndrome associated with trauma, with mental deficiency.

In the old terminology this diagnosis would have been listed as mental deficiency due to trauma (not birth injury).

The clinical entity "Mental deficiency (familial or hereditary)" is classified in Standard as 000-x90. It becomes immediately obvious that the addition of the decimal digit x4 to this code number, thus 000-x90.x4 is a redundancy, as the diagnosis literally interpreted would be mental deficiency with mental deficiency.

The decimal digit x4 may be further expanded to denote degrees of mental deficiency, thus .x41 with mental deficiency mild; .x42 with mental deficiency moderate; .x43 with mental deficiency severe. For example, "Chronic brain syndrome, associated with trauma, with mental deficiency, mild" would have the code number 009-400.x41.

Mental deficiency per se is recognized also in three degrees, mild, moderate, and severe denoted by the addition of the digits 1, 2 and 3 in the rubric for mental deficiency per se, but these digits are in fourth position of the etiologic portion of the code number and are not decimal digits; thus "Mental deficiency (familial or hereditary) severe" would be coded as 000-x903.

While no provisions have been made for the coding of mild, moderate and severe for the decimal digits x1, x2 and x3, nevertheless if desired by the psychiatrist, diagnoses qualified as above and coded with the double decimal combi-

nations added may be recorded with an additional digit in the 3rd decimal place utilizing digit 1 for mild, 2 for moderate and 3 for severe, thus:

- .x11 with mild psychotic reaction
- .x12 with moderate psychotic reaction
- .x13 with severe psychotic reaction.

Diseases of the psychobiologic unit in previous additions were classified under captions with subdivisions as follows:

- A. Mental Deficiencies
- B. Other diseases of the Psychobiologic Unit
- C. Mental Disorders
 - Psychoses
 - Psychoneuroses
 - Primary Behavior Disorders.

These diseases are classified in the "Fourth" edition under revised captions as follows:

- A. Disorders caused by or associated with impairment of brain tissue function
 - 1. Acute brain disorders
 - 2. Chronic brain disorders
- B. Mental deficiencies
- C. Disorders of psychogenic origin or without clearly defined physical cause or structural change in the brain
 - 1. Psychotic disorders
 - 2. Psychophysiologic autonomic and visceral disorders
 - 3. Psychoneurotic disorders
 - 4. Personality disorders
 - 5. Transient situational personality disorders.

Basic to the terminology is the word "disorder," which is used in its broadest sense to signify a group of related conditions affecting the psychobiologic unit. Each group of disorders consists of psychiatric syndromes or conditions referred to as "reactions." These "reactions" are all disturbances of mental functioning. Conditions which affect the brain and associated or related structures without major disturbances of mental functioning are classified in the Nomenclature of Disease in the section "Diseases of the Nervous System." When the two are associated, *both* should be diagnosed, coded and recorded.

Mental disorders with known etiologic factors are classified under the first caption "Disorders caused by or associated with impairment of brain tissue function." The brain tissue damage or the cause of it are provided for in the subdivision of the classification. These subdivisions follow the pattern of the etiologic categories. For example, "Delirium due to trauma" formerly classified and coded as 009-42x is now classified as 000-4.. Acute brain syndrome associated with trauma, specify trauma; "Delirium due to typhoid fever," old code number 009-1y0 is now classified as 000-115 Acute brain syndrome due to systemic infection, typhoid fever.

The classification of Mental deficiency has been restricted to hereditary, or familial and idiopathic. Mental deficiency as a part of the clinical picture associated with organic brain syndromes is compensated for by the use of the decimal digit combination x4.

Psychiatric disorders of psychogenic origin, or without brain tissue impairment are classified under the second caption. A change from previous editions is the expansion of the schizophrenic reactions and the reduction in the number of manic depressive reactions. The major change however, has been the inclusion of the classification of "Psychophysiologic autonomic and visceral disorders." These disorders formerly were classified under the various topographic disease sections of the nomenclature but have now been transferred to this section in recognition of the involvement of both psychic and somatic factors in these conditions. Some of the conditions transferred to this section are:

Code No. 3rd Ed.	Code No. 4th Ed.	Code Supp. Term	Old Diagnosis	New Diagnosis
110-550	001-580		Neurotic excoriations	Psychophysiologic skin reaction
631-550	006-580		Neurosis of pharynx	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)
631-555	000-x03	9222	Spasm of pharynx, hysteri- cal	Conversion reaction
646-558	006-580	662	Achyilia gastric, neurotic	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)
648-558	006-580	272	Atony of stomach, neurotic	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)
642-559	006-580	663	Hyperchlorhydria, neurotic	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)
640-550	006-580		Gastric neurosis	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)
640-556	006-580	614	Nervous vomiting	Psychophysiologic gastrointesti- nal reaction (Indicate manifestation by Supple- mentary Term)

Code No. 3rd Ed.	Code No. 4th Ed.	Code Supp. Term	Old Diagnosis	New Diagnosis
604-550	006-580		Intestinal neurosis	Psychophysiologic gastrointestinal reaction (Indicate manifestation by Supplementary Term)
604-556	006-580	635	Nervous diarrhea	Psychophysiologic gastrointestinal reaction (Indicate manifestation by Supplementary Term)
668-550	006-580		Rectal neurosis	Psychophysiologic gastrointestinal reaction (Indicate manifestation by Supplementary Term)
730-550	007-580		Neurosis of bladder	Psychophysiologic genitourinary reaction (Indicate manifestation by Supplementary Term)
733-558		705	Retention of urine, psychogenic	Since these are symptomatic diagnoses, they will be classified under any of several diagnoses dependent upon the clinician's opinion as to the basis. When the basic mechanism has not been determined or specified a choice of rubric may be made in the following order of priority
705-550		778	Sex impotence, psychogenic	1. Conversion reaction 000-x03
705-557		767	Leukorrhea, psychogenic	2. Psychophysiologic reaction 007-580
781-550		768	Dyspareunia	Manifestation numbers should also be used
780-556		765	Dysmenorrhea, psychogenic	Psychophysiologic genitourinary reaction (Indicate manifestation by Supplementary Term)
785-585		761	Amenorrhea due to mental disorder	
782-550		764	Metrorrhagia, psychogenic	
7x4-555	007-580		Parturition due to psychic shock	Conversion reaction
24.-551	000-x03	241	Contracture of, due to hysteria	Conversion reaction
27.-555	000-x03	231	Cramps, hysteria	Conversion reaction
x00-555	000-x03		Psychic anosmia	Conversion reaction

Code No. 3rd Ed.	Code No. 4th Ed.	Code Supp. Term	Old Diagnosis	New Diagnosis
336-550	000-x03		Neurosis, incoordination of vocal cords	Conversion reaction
330-551	000-x03		Neurosis of larynx, hysteria	Conversion reaction
330-552	000-x03	902	Anesthesia of larynx	Conversion reaction
330-553	000-x03	905	Hyperesthesia	Conversion reaction
330-554	000-x03	907	Paresthesia	Conversion reaction
339-555	000-x03		Paralysis of larynx, hysteria	Conversion reaction
339-556	000-x03	9222	Spasm of larynx, hysteria	Conversion reaction
617-550	000-x03		Paralysis of uvula, hysteria	Conversion reaction
620-550	000-x03	610	Ptyalism, hysterical	Conversion reaction
631-552	000-x03	902	Anesthesia	Conversion reaction
631-553	000-x03	905	Hyperesthesia	Conversion reaction
631-554	000-x03	907	Paresthesia	Conversion reaction
672-550	000-x03	721	Incontinence, hysteria	Conversion reaction
x23-551	000-x03	x13	Amblyopia, hysteria	Conversion reaction
x23-552	000-x03	x12	Hysterical amaurosis	Conversion reaction
x30-555	000-x03		Asthenopia hysteria	Conversion reaction
x39-555	000-x03		Hysterical paralysis of accommodation	Conversion reaction
x70-551	000-x03	x06	Deafness, hysteria	Conversion reaction

The "Diagnostic and Statistical Manual for Mental Disorders" (American Psychiatric Association) explains in detail the definitions of the new terminology and gives by example the relationship between the old and the new terminology. The coder and classifier of diseases of the psychobiologic unit must become familiar with the definitions of the new terminology as expressed in the manual if classification and coding is to be accurate.

To simplify this task and as a guide, the old terminology as listed in previous editions of Standard is tabulated below with a cross reference to the new terminology as listed in the "Fourth" edition of Standard. The code numbers for the old terminology are included as well as the code numbers for the new terminology. (See tabulation following.)

In the maintenance of the disease classification index file it is suggested that new disease classification index cards be prepared at an appropriate time in conformity with the new terminology and rubrics. It is not considered advisable to transfer the old terms with their rubrics to the new cards. The old cards should be balanced as of the date of installation of the new cards and maintained as an appendix or an addendum to the active disease classification index file until such time as there is no further reference to them. They should then be placed in the inactive disease classification index file.

	Third Edition		Fourth Edition
000-046	Familial mental deficiency	000-x90 000-x901 000-x902 000-x903	Mental deficiency (familial or hereditary) ¹ Mild Moderate Severe
000-071	Mongolism	009-071	Chronic brain syndrome associated with mongolism
000-077	Mental deficiency with developmental cranial anomaly. Specify type such as, microcephalic or oxycephalic	009-0..	Chronic brain syndrome associated with congenital cranial anomaly (Specify anomaly) ¹
000-016.9	Mental deficiency with congenital cerebral spastic infantile paraplegia	009-016	Chronic brain syndrome associated with congenital spastic paraplegia ¹
000-1xx	Mental deficiency, due to infection. Specify organism when known	009-1...0	Chronic brain syndrome associated with intracranial infection other than syphilis (Specify infection) ¹
000-050	Mental deficiency due to trauma during birth	009-050	Chronic brain syndrome associated with birth trauma ¹
000-4xx	Mental deficiency due to trauma after birth	009-4.. 009-4...x4 009-415.x4 009-462.x4 009-470.x4	Chronic brain syndrome associated with trauma (Specify as below) ¹ Chronic brain syndrome, brain trauma gross force (Specify other than operative), with mental deficiency Chronic brain syndrome following brain operation, with mental deficiency Chronic brain syndrome following electrical brain trauma, with mental deficiency Chronic brain syndrome following irradiational brain trauma, with mental deficiency

¹ When Mental Deficiency is the presenting symptom of primary importance, and it is desired to indicate this in the diagnosis, add .x4 to code number.

		Third Edition	Fourth Edition
000-550	Mental deficiency due to epilepsy	009-550	Chronic brain syndrome associated with convulsive disorder ¹
000-770	Mental deficiency with glandular disorder	009-700	Chronic brain syndrome associated with other disturbances of metabolism, growth or nutrition (Includes pre-senile, glandular, pellagra, familial amaurosis) ¹
000-755	Mental deficiency with familial amaurosis	009-700	Chronic brain syndrome associated with other disturbances of metabolism, growth or nutrition (Includes pre-senile, glandular, pellagra, familial amaurosis) Record amaurosis Supplementary Term code number x12 ¹
or			
000-076	Prematurity	011-076	Transferred to diseases of Body As A Whole
003-3..	Drug addiction	000-x642	Drug addiction
000-332	Alcohol	000-x641	Alcohol addiction
000-3321	Alcohol, periodic	000-x641	Alcohol addiction
000-333	Ether		
000-336	Chloroform	000-x642	Drug addiction
000-361	Absinthe		
000-364	Cannabis		
000-365	Cocaine		
000-369	Nicotine		
000-370	Opium (morphine, heroin diacetylmorphine)		
000-556	Hypertonicity of infancy	000-x83	Adjustment reaction of infancy
010-797	Senility	010-797	Transferred to diseases of Body As A Whole

000-7x4	Pseudocyesis	000-x03 007-580	Conversion reaction Psychophysiologic genito-urinary reaction (Indicate Supplementary Term)
0y0-147	Psychosis with syphilis of the central nervous system	0..-147.0	Chronic brain syndrome associated with central nervous system syphilis ²
002-147	Meningoencephalitic type (general paresis)	009-147.0	Meningoencephalitic ²
003-147	Meningovascular type (cerebral syphilis)	004-147.0	Meningovascular ²
004-147	Psychosis with intracranial gumma	0y0-147.0.x1	Chronic brain syndrome associated with other central nervous system syphilis, with psychotic reaction ²
0y0-147	Other types	0y0-147.0.x1	Chronic brain syndrome associated with other central nervous system syphilis, with psychotic reaction ²
008-123	Psychosis with tuberculosis meningitis	009-123	Acute brain syndrome associated with intracranial infection (Specify infection) ² <i>or</i>
		009-123.0	Chronic brain syndrome associated with intracranial infection (Specify infection) ²
008-190	Psychosis with meningitis (unspecified)	009-100.x1	Acute brain syndrome associated with intracranial infection (Specify infection) ² <i>or</i>
003-163	Psychosis with epidemic encephalitis	009-100.0.x1 009-163.x1 009-163.0.x1	Chronic brain syndrome associated with intracranial infection (Specify infection) ² Acute brain syndrome associated with intracranial infection (Specify infection) ² <i>or</i> Chronic brain syndrome associated with intracranial infection (Specify infection) ²

¹ When Mental Deficiency is the presenting symptom of primary importance, and it is desired to indicate this in the diagnosis, add .x4 to code number.

² May be classified under four rubrics dependent upon the disturbance of function. See text.

	Third Edition		Fourth Edition
004-196	Psychosis with acute chorea (Sydenham's)	009-196.x1	Acute brain syndrome associated with intracranial infection. Chorea Supplementary Term code number 213
009-1y0	Psychosis with other infectious disease (Specify)	009-100.x1	Acute brain syndrome associated with intracranial infection (Specify infection)
009-1xx	Post infectious psychosis	000-100.x1	Acute brain syndrome associated with systemic infection, with psychotic reaction ²
001-332	Psychosis due to alcohol	000-3312.x1	Acute brain syndrome, alcohol intoxication, with psychotic reaction ²
002-332	Pathologic intoxication		Diagnose underlying psychiatric disorder (Conversion reaction or schizophrenic reaction; acute brain syndrome) ²
003-332	Delirium tremens	000-33123	Delirium tremens
004-332	Korsakoff's psychosis	009-300.x1	Chronic brain syndrome associated with intoxication, with psychotic reaction
007-332	Acute hallucinosis	000-33122	Acute hallucinosis
0y0-332	Other types	000-3312	Acute brain syndrome, alcohol intoxication ²
		009-3312	or Chronic brain syndrome, alcohol intoxication ²
002-300	Psychosis due to a drug or other exogenous poison	000-3..	Acute brain syndrome, drug or poison intoxication (Specify drug or poison) ²
		009-3..	or Chronic brain syndrome, drug or poison intoxication (Specify drug or poison) ²

002-310	Due to metal	000-31.	Acute brain syndrome, drug or poison intoxication (Specify drug or poison) ²
			<i>or</i>
002-350	Due to gas	009-31.	Chronic brain syndrome, drug or poison intoxication (Specify drug or poison) ²
		000-35.	Acute brain syndrome drug or poison intoxication (Specify drug or poison) ²
		009-35.	Chronic brain syndrome drug or poison intoxication (Specify drug or poison) ²
002-370	Due to opium or a derivative	000-37.	Acute brain syndrome drug or poison intoxication (Specify drug or poison) ²
		009-37.	Chronic brain syndrome drug or poison intoxication (Specify drug or poison) ²
113		000-4..	Acute brain syndrome associated with trauma (Specify trauma) ²
009-42x	Delirium due to trauma	009-4...x3	Chronic brain syndrome associated with trauma, with behavioral reaction
009-4x9	Personality disorders due to trauma	009-4..	Chronic brain syndrome associated with trauma
003-4xx	Mental deterioration due to trauma	000-4..	Acute brain syndrome associated with trauma ²
003-4y0	Other types	009-4..	Chronic brain syndrome associated with trauma ²

² May be classified under four rubrics dependent upon the disturbance of function. See text.

	Third Edition		Fourth Edition
003-512	Psychosis with cerebral embolism	009-512.x1	Chronic brain syndrome associated with circulatory disturbance, with psychotic reaction (Indicate cardiovascular disease as additional diagnosis) ²
003-516	Psychosis with cerebral arteriosclerosis	009-516.x1	Chronic brain syndrome associated with arteriosclerosis, with psychotic reaction ²
009-5xx	Psychosis with cardiorenal disease	000-5..	Acute brain syndrome associated with circulatory disturbance (Specify) (Indicate cardiovascular disease as additional diagnosis) ²
			<i>or</i>
003-yx0	Other types	009-5..	Chronic brain syndrome associated with circulatory disturbance (Specify) (Indicate cardiovascular disease as additional diagnosis) ²
		000-5..	Acute brain syndrome associated with circulatory disturbance. Specify. ²
			<i>or</i>
003-550	Epileptic deterioration	009-5..	Chronic brain syndrome associated with circulatory disturbance. Specify. ²
003-560	Epileptic clouded states	009-550	Chronic brain syndrome associated with convulsive disorder
003-5y5	Other epileptic types	000-550	Acute brain syndrome associated with convulsive disorder
		000-550	Acute brain syndrome associated with convulsive disorder ²
			<i>or</i>
		009-550	Chronic brain syndrome associated with convulsive disorder ²

	001-79x	Senile psychosis		009-79x	Chronic brain syndrome associated with senile brain disease ^a
	002-79x	Simple deterioration		009-79x	Chronic brain syndrome associated with senile brain disease
	003-79x	Presbyophrenic type	}	009-79x-x1	Chronic brain syndrome associated with senile brain disease with psychotic reaction
	004-79x	Delirious and confused types	}	009-700	Chronic brain syndrome associated with other disturbances of metabolism, growth or nutrition (Includes presenile, glandular, pellagra, familial amaurosis) ^a
	005-79x	Depressed and agitated types			
	006-79x	Paranoid types			
	930-796	Presenile sclerosis (Alzheimer's disease)			
SII	001-796	Involutorial psychosis		000-796	Involutorial psychotic reaction
	002-796	Melancholia		000-7...x1	Acute brain syndrome with metabolic disturbance, with psychotic reaction (Specify) Usually acute, may be chronic
	003-796	Paranoid types		000-712	Acute brain syndrome with metabolic disturbance (Specify)
	0y0-796	Other types		000-700-x1	Acute brain syndrome associated with other disturbance of metabolism, growth or nutrition, with psychotic reaction (Specify the disease) May be chronic
	00x-770	Psychoses with glandular disorder		009-700	Chronic brain syndrome associated with other disturbance of metabolism, growth or nutrition (Specify the disease) May be acute
	009-712	Exhaustion delirium			
	009-7623	Psychoses with pellagra			
	009-yxx	Psychoses with other somatic disease			

^a May be classified under four rubrics dependent upon the disturbance of function. See text.

	Third Edition		Fourth Edition
003-8..	Psychoses with intracranial neoplasm	009-8...x1	Chronic brain syndrome associated with intracranial neoplasm with psychotic reaction (Specify)
009-8..	Psychoses with other neoplasm		May be diagnosed under disorders of psychogenic origin in accordance with the clinical picture
006-953	Psychoses with multiple sclerosis	009-900.x1	Chronic brain syndrome associated with diseases of unknown or uncertain cause, with psychotic reaction. Record the multiple sclerosis ²
004-953	Psychoses with paralysis agitans	009-900.x1	Chronic brain syndrome associated with diseases of unknown or uncertain cause, with psychotic reaction ²
111 004-992	Psychoses with Huntington's chorea	009-900.x1	Chronic brain syndrome associated with diseases of unknown or uncertain cause, with psychotic reaction. Diagnose the chorea ²
004-9y0	Psychoses with other disease of the brain or nervous system	009-900.x1	Chronic brain syndrome associated with diseases of unknown or uncertain cause, with psychotic reaction. Diagnose the other disease of the brain ²
001-x10 001-x11 001-x12 001-x13 001-x14 001-x15 001-x16 001-x17	Manic depressive psychoses Manic type Depressed type Circular type Mixed type Perplexed type Stuporous type Other types	000-x10 000-x11 000-x12 000-x13	Affective reactions Manic depressive reaction manic type Manic depressive reaction depressed type Manic depressive reaction other (Specify)

001-x20	Dementia praecox (Schizophrenia)	000-x20	Schizophrenic reactions
001-x21	Simple type	000-x21	Simple type
001-x22	Hebephrenic type	000-x22	Hebephrenic type
001-x23	Catatonic type	000-x23	Catatonic type
001-x24	Paranoid type	000-x24	Paranoid type
001-x25	Other types	000-x25	Acute undifferentiated type
		000-x26	Chronic undifferentiated type
		000-x27	Schizo-affective type
		000-x28	Childhood type
		000-x29	Residual type
001-x30	Paranoia	000-x31	Paranoia
001-x31	Paranoid conditions	000-x32	Paranoid state
001-x40	Psychoses with psychopathic personality	000-x61-x1	Antisocial reaction with psychotic reaction. May be any of personality disorders with psychotic reaction
001-x50	Psychoses with mental deficiency	000-x90-x1	Mental deficiency with psychotic reaction. May be chronic brain syndrome with psychotic reaction. See text
002-x00	Anxiety hysteria	000-x04	Phobic reaction. May be conversion or dissociative reaction depending upon predominant symptomatology
002-x10	Conversion hysteria	000-x03	Conversion reaction
002-x11	Anesthetic type (Indicate manifestation)		
002-x12	Paralytic type (Indicate manifestation)		
002-x13	Hyperkinetic type (Indicate manifestation)		
002-x14	Paresthetic type (Indicate manifestation)	000-x03	Conversion reaction

* May be classified under four rubrics dependent upon the disturbance of function. See text.

Third Edition		Fourth Edition	
	Autonomic type (Indicate manifestation)		Conversion reaction <i>or</i> Psychophysiologic autonomic and visceral disorders
002-x15		000-x03	
002-x16	Amnesic type	000-x02	Dissociative reaction
002-x1x	Mixed hysterical psychoneurosis	000-580	Diagnose major type of reaction
002-x21	Obsession	000-x05	Obsessive compulsive reaction
002-x22	Compulsive tics and spasms	000-x05	Obsessive compulsive reaction
002-x23	Phobia	000-x04	Phobic reaction
002-x2x	Mixed compulsive states		Diagnose major type of reaction
002-x30	Neurasthenia	009-580	Psychophysiologic nervous system reaction
002-x31	Hypochondriasis	000-x0y	Psychoneurotic reaction, other Systematized paranoid hypochondriacal states are classified under 000-x24 Schizophrenic reaction, paranoid type.
118			
002-x32	Reactive depressive	000-x06	Depressive reaction
002-x33	Anxiety state	000-x01	Anxiety reaction
002-x34	Anorexia nervosa	006-580	Psychophysiologic gastrointestinal reaction manifested by anorexia
002-x0x	Mixed psychoneurosis		Diagnose major type of reaction
001-y00	Undiagnosed psychosis	000-y00-x1	Psychotic disorder, undiagnosed
0y0-y00	Without mental disorder	0y0-000	For hospital record only Without mental disorder
930-yxx	Epilepsy	930-x01	Classified in Diseases of Nervous System
000-332	Alcoholism	000-x641	Alcoholism

000-3xx	Drug addiction	000-x642 000-x90 000-x901 000-x902 000-x903	Drug addiction Mental deficiency (familial or hereditary) Mild Moderate Severe
000-yxx	Mental deficiency	000-y90 000-y901 000-y902 000-y903	Mental deficiency, idiopathic Mild Moderate Severe
000-163	Disorders of personality due to epidemic encephalitis	009-163.x3	Chronic brain disorder associated with epidemic encephalitis, with behavior reaction
000-x40	Psychopathic personality	000-x61	Antisocial reaction
000-x41	With pathologic sexuality	000-x63	Sexual deviation
000-x42	With pathologic emotionality	000-x51	Emotionally unstable personality (or see types)
000-x43	With asocial or amoral trends	000-x62	Dysocial reaction
000-x4x	Mixed types	000-x40	Diagnose major personality disorder
0y0-y05	Other nonpsychotic diseases or conditions		Each group of disorders contains a rubric for unclassified reactions
000-x61	Simple adult maladjustment	000-x82	Adult situational reaction
	Primary behavior disorders in children	000-x84	Adjustment reaction of childhood
000-x71	Habit disturbance	000-x841	Habit disturbance
000-x72	Conduct disturbance	000-x842	Conduct disturbance
000-x73	Neurotic traits	000-x843	Neurotic traits

APPENDIX C
SUPPLEMENTARY TERMS
(Partial List)¹

0-	SUPPLEMENTARY TERMS OF THE BODY AS A WHOLE (INCLUDING SUPPLEMENTARY TERMS OF THE PSYCHE AND OF THE BODY GENERALLY) AND THOSE NOT AFFECTING A PARTICULAR SYSTEM EXCLUSIVELY	
088	Acarophobia	(313)
089	Acrophobia	(313)
08x	Agoraphobia	(313)
044	Antisocialism	(320.4)
084	Anxiety	(310)
0x1	Asthenia	(790.1) *
030	Breath holding	(324.3) *
098	Bruxism	(318.5)
00x	Cachexia	(790.1) *
090	Cancerophobia	(313)
016	Causalgia	(366)
091	Claustrophobia	(313)
020	Cheiromegaly (enlargement of hands and fingers)	(787.2)
0x3	Chills	(788.9)
0x4	Chilly sensations	(788.9)
0x9	Collapse	(782.5)
079	Counting (steps, etc.)	(313)
052	Cruelty	(324.3) *
046	Deficiency, moral	(320.5)
010	Dehydration	(788.0)
078	Delire de toucher	(313)
080	Depersonalization	(318.1) *
085	Depression	(790.2)
053	Destructiveness	(324.3) *
02x	Diabetes insipidus	(272)
076	Dipsomania	(322.1) *
051	Disobedience	(324.3) *
018	Edema, hysterical	(311)
0x7	Edema, other types	(782.6) *
043	Emotional instability	(321.0)
05x	Enuresis	(786.2) *
057	Erotomania	(320.6)
019	Facetiousness	(326.4)
0x0	Fatigue, abnormal	(790.1) *

¹ Reprinted from "Standard Nomenclature of Diseases and Operations," Fourth Edition, published for American Medical Association, The Blakistone Co., Philadelphia, 1952.

087	Fears, mixed	(312)
035	Feeding problem in children	(772.0) *
059	Folie du doute	(310)
055	Forgery	(320.5)
028	Fugue	(780.8) *
006	Gain in weight	(788.9)
036	Homosexuality	(320.6)
000	Hypothermia	(788.9)
069	Kleptomania	(313)
008	Loss in weight	(788.4) *
037	Mania	(301.0) *
034	Masturbation	(317.1) *
047	Mendacity pathologic: untruthfulness	(320.5) *
03x	Misanthropy	(320.4)
039	Misogyny	(320.6)
014	Moria (Witzelsucht)	(309.1) *
086	Mysophobia	(313)
031	Nail biting	(324.3) *
029	Negativism	(320.4)
068	Nymphomania	(320.6)
007	Obesity	(287) *
045	Overactivity	(324.3) *
0x2	Pain, general	(788.9)
083	Panic	(310)
082	Panic, acute homosexual	(320.6)
081	Paranoid trends	(320.1)
072	Paroxysmal automatism	(308.1) *
074	Paroxysmal clouded states	(308.1) *
073	Paroxysmal furor	(308.1) *
071	Paroxysmal psychic equivalents	(308.1) *
027	Personality, dual	(320.7)
026	Personality, dissociated	(320.7)
040	Personality, paranoid	(320.1)
041	Personality, schizoid	(320.0)
042	Personality, syntonic	(No equivalent)
093	Phthisiophobia	(313)
003	Pyrexia; hyperthermia	(788.8)
056	Pyromania; setting fires	(313)
050	Quarrelsomeness	(321.2)
061	Sexual immaturity	(320.6)
060	Sex offenses	(320.6)
062	Sexual perversion	(320.6)
0x8	Shock	(782.9)
011	Simulation, malingering	(795.1)
024	Somnambulism	(780.7)

025	Somniloquism	(780.7)
054	Stealing	(324.3) *
0xx	Syncope	(782.5)
092	Syphilophobia	(313)
033	Tantrums	(324.3) *
0x5	Tetany	(788.5)
0x6	Tetany due to hyperventilation	(783.2)
032	Thumb sucking	(324.3) *
038	Tongue swallowing	(538)
012	Trance	(795.0)
066	Trichokryptomania	(313)
067	Trichotillomania	(313)
04x	Truancy	(324.3) *
013	Urge to say words	(313)
075	Use of alcohol	(322.2) *
058	Use of drugs	(323)
048	Vagabondage	(320.5)
049	Vagrancy	(320.5)
009	Xanthomatosis (symptomatic)	(289.0)

1- SUPPLEMENTARY TERMS OF THE INTEGUMENTARY SYSTEM (INCLUDING SUBCUTANEOUS AREOLAR TISSUE, MUCOUS MEMBRANES OF ORIFICES AND THE BREAST)

121	Acroasphyxia	(453.0)
122	Acrocyanosis	(453.3)
155	Anhidrosis	(714.0)
103	Blushing	(782.3)
104	Cyanosis	(782.3)
132	Dermatographia (excessive local circulatory reaction due to scratching the skin)	(716)
105	Erythema, general	(705.5)
106	Erythema, local	(705.5)
161	Hirsutism	(713)
153	Hyperhidrosis, general	(788.1)
154	Hyperhidrosis, local	(788.1)
156	Hyperhidrosis, nocturnal	(788.1)
162	Loss of hair	(713)
125	Night sweats	(788.1)
101	Pallor	(782.3)
182	Pilomotor disturbances	(781.7)
143	Pruritis	(708.5) *
152	Trophoneuroses	(368) *
159	Ulceration	(715) *

2- SUPPLEMENTARY TERMS OF THE MUSCULOSKELETAL SYSTEM

206	Arthralgia, general joint pain	(787.3)
246	Arthropathy	(738)
271	Ataxia; incoordination	(780.5)
272	Atonia (loss of muscle tone)	(744.2)
208	Coccygodynia	(787.5)
241	Contracture	(744.2) *
202	Hydrarthrosis	(738)
207	Lumbago, lumbosacral pain	(726.0)
231	Muscular cramp	(787.1)
251	Myalgia (muscle pain)	(726.3)
230	Myoidema (local increased muscular irritability)	(744.2)
232	Myotonia (increased muscular irritability)	(744.1)
20x	Postures hysterical	(311)

3- SUPPLEMENTARY TERMS OF THE RESPIRATORY SYSTEM

326	Asthma	(241) *
31x	Bronchial spasm	(527.2)
320	Change in voice	(783.5)
314	Cough	(783.3)
311	Dyspnea	(783.2)
321	Hoarseness	(783.5)
310	Incoordination of vocal cords	(517)
312	Orthopnea	(783.2)
330	Pain in thorax (noncardiac)	(783.7)
323	Paralysis of larynx	(517)
313	Paroxysmal dyspnea	(783.2)
318	Sneezing, intractable	(517)

4- SUPPLEMENTARY TERMS OF THE CARDIOVASCULAR SYSTEM

401	Anginal syndrome	(420.2) *
451	Arrhythmia (generally and unspecified)	(433.1)
412	Arrhythmia (sinus)	(433.1)
425	Atrial paroxysmal fibrillation	(433.1)
423	Atrial paroxysmal flutter	(433.1)
422	Atrial paroxysmal tachycardia	(433.1)
421	Atrial premature contraction	(433.1)
413	Bradycardia (sinus)	(433.1)
402	Palpitation	(782.1)
400	Precordial pain of cardiac origin	(782.0)
456	Premature beats, unspecified	(433.1)
441	Ventricular premature contractions	(433.1)

5- SUPPLEMENTARY TERMS OF THE HEMIC AND LYMPHATIC SYSTEMS

542	Acidosis	(788.6)
541	Alkalosis	(788.7)
554	Disturbance of creatine and creatinine metabolism	(289.2)
571	Hyperglycemia	(260)
574	Hypoglycemia	(270)
531	Leukemoid blood picture	(299)
510	Leukocytosis, simple	(299)

6- SUPPLEMENTARY TERMS OF THE DIGESTIVE SYSTEM

645	Abnormality of duodenal filling	(545)
647	Abnormality of intestinal filling	(578)
661	Achlorhydria	(544.0)
662	Achyilia	(544.0)
617	Aerophagia	(316.3)
612	Anorexia (loss of appetite)	(784.0)
668	Blood in gastric contents	(784.5)
669	Blood in feces, occult	(785.8)
616	Bulimia (excessive appetite)	(788.9)
630	Constipation	(573.0)
635	Diarrhea	(785.6) *
631	Dysphagia (difficulty in swallowing)	(784.4)
615	Eruption	(784.8)
643	Gastric hypermotility	(544.1)
644	Gastric hypomotility	(544.1)
642	Gastric stasis	(544.2)
619	Halitosis	(788.9)
671	Hiccup, singultus	(784.7)
663	Hyperchlorhydria	(544.0)
664	Hypersecretion, gastric	(544.0)
666	Hypochlorhydria	(544.0)
639	Incontinence of feces	(785.7)
649	Intestinal hypermotility	(573.2)
64x	Intestinal hypomotility	(573.3)
632	Intestinal stasis	(578)
611	Nausea	(784.1)
648	Obstipation	(573.0)
625	Pain in the abdomen	(785.5)
624	Pain in epigastrium, (544.2); heartburn, (784.3); purosis, (784.3); cardialgia, (782.0)	
628	Paralysis of uvula	(517)
618	Pyloric obstruction	(545)
626	Rigidity of abdomen, general or local	(788.9)
623	Rumination or merycism	(784.8)
610	Salivation	(784.6)

61x	Thirst, excessive; polydipsia	(788.9)
614	Vomiting	(784.1)

7— SUPPLEMENTARY TERMS OF THE UROGENITAL SYSTEM

730	Abnormal acidity of urine	(789.9)
731	Abnormal alkalinity of urine	(789.9)
761	Amenorrhea	(634)
708	Ammoniacal urine	(789.9)
703	Anuria	(786.5)
772	Aspermia	(616)
777	Asthenospermia	(616)
766	Delayed menstruation	(634)
765	Dysmenorrhea	(634)
768	Dyspareunia	(786.7)
704	Dysuria	(786.0)
706	Frequency of micturition	(786.3)
707	Frequency of micturition, nocturnal	(786.3)
76x	Frigidity	(781.7)
778	Impotence	(617)
721	Incontinence of urine	(786.2)
767	Leukorrhea	(637.0)
763	Menorrhagia	(634)
764	Metrorrhagia	(634)
724	Nocturnal emissions	(617)
762	Oligomenorrhea	(634)
773	Oligospermia	(616)
702	Oliguria	(786.5)
780	Ovulation pain (Mittelschmerz)	(634)
770	Pain referable to female genital organs	(786.7)
775	Pain referable to male genital organs	(786.7)
710	Pain referable to urinary system	(786.0)
701	Polyuria	(786.4)
725	Premature ejaculation of semen	(617)
776	Priapism	(786.6)
705	Retention of urine	(786.1)
760	Vaginal bleeding	(637.1)
717	Vaginismus	(637.1)
712	Vesical pain	(786.0)

8— SUPPLEMENTARY TERMS OF THE ENDOCRINE SYSTEM

802	Depressed basal metabolism	(788.9)
801	Elevated basal metabolism	(788.9)
811	Hibernation and somnolence	(780.7)
806	Male climacteric	(617)
805	Menopausal syndrome	(635)
803	Thyroid crisis	(252.0)

9— SUPPLEMENTARY TERMS OF THE NERVOUS SYSTEM

9525	Absence of sensation of cold	(781.7)
9521	Absence of sensation of heat	(781.7)
9531	Absence of vibratory sensibility	(781.7)
992	Acalculia (inability to do simple arithmetic)	(326.0) *
976	Acroparesthesia	(453.3)
911	Amnesia	(780.8)
9552	Amnestic aphasia (loss of memory for words)	(326.2) *
989	Amusia	(781.3)
903	Analgesia (loss of pain sensitivity)	(781.7)
957	Anarthria (inability to express words or symbols properly)	(326.2) *
902	Anesthesia, hysterical	(311) *
956	Aphonia (inability to vocalize speech)	(783.5) *
9632	Apraxia, ideational	(780.5)
942	Astasia abasia (hysterical inability to stand)	(311)
944	Asynergia (ataxia) (disturbance in coordination)	(780.5)
9211	Athetosis (successive pattern movements, vermicular in character)	(780.4)
975	Autotopagnosia (phantom limb)	(781.7)
936	Cataplexy (falling caused by emotional influences)	(311)
939	Catatonia (maintenance of fixed postures)	(300.2)
9215	Choreoathetosis (combination of chorea and athetosis)	(780.4)
932	Coma	(780.0)
922x	Combined forms of abnormal involuntary movements	(780.4)
908	Compulsive talking	(313)
9631	Constructional apraxia	(780.5)
934	Convulsions, generalized	(780.2)
918	Crying, forced	(781.8)
931	Delirium	(780.1)
925	Delusions	(318.5)
922	Dementia	(309.1) *
9522	Diminution of sensation of heat	(781.7)
9526	Diminution of sensation of cold	(781.7)
904	Dream states	(781.9)
943	Dysbasia (difficulty in standing)	(787.6)
906	Dysesthesia (perverted objective sensitivity)	(781.7)
958	Dyslexia (difficulty in reading)	(326.0) *
945	Dysmetria (incorrect measuring of movements)	(780.5)
953	Dysphasia (difficulty in speech)	(326.2) *
959	Dyspraxia (difficulty in performance of skilled acts)	(780.5)
9216	Dystonic movements (intermittent hyper- and hypotonia)	(780.4)
928	Echolalia (echoing speech of examiner)	(326.2) *
938	Erythromelalgia (pain and redness of extremities due to nervous influence)	(453.3)
937	Flexibilitas cerea (cataleptic retention of postures)	(318.5)

9226	Habit spasm	(780.4)
910	Hallucinosis, general	(309.1) *
9101	Hallucinosis, hypnagogic (on going to sleep)	(780.7)
9102	Hallucinosis, hypnopompic (on awakening)	(780.7)
961	Headache; cephalgia	(791)
9513	Hemianalgesia	(781.7)
901	Hemianesthesia	(781.7)
9212	Hemiathetosis	(780.4)
9210	Hemiballismus (gross throwing movements of upper and/or lower extremities)	(780.4)
9514	Hemihypalgesia	(781.7)
917	Hemihypesthesia	(781.7)
968	Hemiparesis	(352) *
9512	Hypalgesia (reduction of pain sensitivity)	(781.7)
9515	Hyperalgesia (increased pain sensitivity)	(781.7)
905	Hyperesthesia (increased sensitivity)	(781.7)
9516	Hyperpathia (increased effect from painful stimuli)	(781.7)
914	Hypersomnia	(780.7)
913	Hypesthesia (reduction of feeling)	(781.7)
926	Illusions	(309.1) *
9527	Increase of sensation of cold	(781.7)
9523	Increase of sensation of heat	(781.7)
916	Insomnia; hyposomnia	(780.7)
9555	Interjectional speech	(326.2) *
919	Laughter, forced	(781.8)
923	Mental deterioration	(328.9) *
92x	Migraine	(354)
948	Monoplegia	(352) *
9219	Myoclonus (muscle contractions of a rhythmical character)	(780.4)
930	Narcolepsy (excessive inclination to sleep)	(780.7)
9519	Neuralgia, facial, atypical	(360)
915	Neurotic excoriations	(708.4)
9227	Occupational spasm or tic	(318.2)
973	Palilalia (repetition of words)	(326.2) *
9558	Paragrammatism (ungrammatical speech)	(362.2) *
971	Paraphasia (misuse of words)	(326.2) *
941	Paraplegia	(352) *
907	Paresthesia (tingling, numbness, burning, bursting, crawling, tickling, etc.)	(781.7)
929	Perseveration (repetition of patient's own words, phrases or movements)	(781.8)
940	Pyknolepsy (short lapses of consciousness)	(353.3)
9222	Spasm (780.4); torticollis (726.2); hemispasm facialis (780.4)	
9330	Spasm of glottis	(517)
9224	Spasmus nutans (nodding of head)	(780.4)

933	Stupor	(780.0)
9302	Stuttering (including stammering)	(326.1) *
9225	Tic (muscle contraction, irregular)	(780.4)
9223	Torsion spasm (torsion of shoulder or pelvic girdle)	(355)
9228	Tremor	(780.4)
995	Vasomotor disturbances	(453.3)

x— SUPPLEMENTARY TERMS OF THE ORGANS OF SPECIAL SENSE

x12	Amaurosis (blindness)	(389.1) *
x13	Amblyopia (dimness of vision)	(388.9)
x41	Anosmia	(781.7)
x22	Diplopia	(781.1)
x07	Disturbances of hearing	(781.3) *
x40	Disturbances of olfactory nerve	(781.4)
x50	Disturbances of optic nerve	(781.0) *
x78	Disturbances of secretory and vasomotor nerves	(781.4)
x20	Enophthalmos	(781.1)
x21	Exophthalmos	(781.1)
x31	Extrinsic muscles (eye), spasm (including blepharospasm)	(388.9)
x43	Hallucinations	(781.9)
x432	Hallucinations of hearing	(781.9)
x435	Hallucinations of smell	(781.9)
x431	Hallucinations of taste: ageusia, parageusia	(781.9)
x433	Hallucinations of vision	(781.9)
x34	Intrinsic muscles (eye), spasm	(388.9)
x00	Ménière syndrome (labyrinthine syndrome)	(395)
x2x	Nystagmus	(781.1) *
x123	Psychic blindness	(355)
x04	Tinnitus	(781.3)
x0x	Vertigo	(780.6)
x124	Word blindness	(326.0) *
x03	Word deafness	(326.2) *

APPENDIX D

STATE MENTAL HOSPITAL SYSTEMS WITH STATISTICAL OFFICES

	Commissioner or Director of Mental Hospitals	Statistician
ARKANSAS:	Granville Jones, M.D. Superintendent Arkansas State Hospital Little Rock, Arkansas	Mr. M. T. McMurry Registrar Arkansas State Hospital Little Rock, Arkansas
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ILLINOIS:	Otto L. Bettag, M.D., Director Dept. of Public Welfare Springfield, Illinois	Mr. Edmund G. D'Elia, Supervisor Research & Statistics Dept. of Public Welfare Springfield, Illinois
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IOWA:	J. O. Cromwell, M.D., Director Mental Health Institute Independence, Iowa	Mrs. Hazel Garner, Statistician Board of Control of State Institutions Des Moines, Iowa

	Commissioner or Director of Mental Hospitals	Statistician
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	Commissioner or Director of Mental Hospitals	Statistician
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NEW YORK:	Paul H. Hoch, M.D., Commissioner State Dept. of Mental Health Gov. Alfred Smith State Office Building Albany, New York	Mr. Robert E. Patton, Director Statistical Services Dept. of Mental Health State Building Albany, New York
OHIO:	Robert C. Anderson, M.D. Acting Commissioner Dept. of Mental Hygiene State Office Building Columbus 16, Ohio	Mr. Grover Chamberlain Administrative Assistant Research and Statistics Dept. of Mental Hygiene Columbus 16, Ohio
OKLAHOMA:	T. Glyn Williams, M.D. Commissioner of Mental Health Dept. of Mental Health State Capitol Building Oklahoma City, Oklahoma	Mr. Donald D. Tolliver Dir. of Biometrics Dept. of Mental Health State Capitol Building Oklahoma City, Oklahoma
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	Commissioner or Director of Mental Hospitals	Statistician
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H *APA Diagnostic and Statistical Manual II, 1968*

Section 3

THE DEFINITIONS OF TERMS

I: MENTAL RETARDATION¹ (310—315)

Mental retardation refers to subnormal general intellectual functioning which originates during the developmental period and is associated with impairment of either learning and social adjustment or maturation, or both. (These disorders were classified under "Chronic brain syndrome with mental deficiency" and "Mental deficiency" in DSM-I.) The diagnostic classification of mental retardation relates to IQ as follows²:

310 Borderline mental retardation—IQ 68—83

311 Mild mental retardation—IQ 52—67

312 Moderate mental retardation—IQ 36—51

313 Severe mental retardation—IQ 20—35

314 Profound mental retardation—IQ under 20

Classifications 310-314 are based on the statistical distribution of levels of intellectual functioning for the population as a whole. The range of intelligence subsumed under each classification corresponds to one standard deviation, making the heuristic assumption that intelligence is normally distributed. It is recognized that the intelligence quotient should not be the only criterion used in making a diagnosis of mental retardation or in evaluating its severity. It should serve only to help in making a clinical judgment of the patient's adaptive behavioral capacity. This judgment should also be based on an evaluation of the patient's developmental history and present functioning, including academic and vocational achievement, motor skills, and social and emotional maturity.

315 Unspecified mental retardation

This classification is reserved for patients whose intellectual functioning

has not or cannot be evaluated precisely but which is recognized as clearly subnormal.

Clinical Subcategories of Mental Retardation

These will be coded as fourth digit subdivisions following each of the categories 310-315. When the associated condition is known more specifically, particularly when it affects the entire organism or an organ system other than the central nervous system, it should be coded additionally in the specific field affected.

.0 Following infection and intoxication

This group is to classify cases in which mental retardation is the result of residual cerebral damage from intracranial infections, serums, drugs, or toxic agents. Examples are:

Cytomegalic inclusion body disease, congenital. A maternal viral disease, usually mild or subclinical, which may infect the fetus and is recognized by the presence of inclusion bodies in the cellular elements in the urine, cerebrospinal fluid, and tissues.

Rubella, congenital. Affecting the fetus in the first trimester and usually accompanied by a variety of congenital anomalies of the ear, eye and heart.

Syphilis, congenital. Two types are described, an early meningo-vascular disease and a diffuse encephalitis leading to juvenile paresis.

Toxoplasmosis, congenital. Due to infection by a protozoan-like organism, Toxoplasma, contracted in utero. May be detected by serological tests in both mother and infant.

Encephalopathy associated with other prenatal infections. Occasionally fetal damage from maternal epidemic cerebrospinal meningitis, equine encephalomyelitis, influenza, etc. has been reported. The relationships have not as yet been definitely established.

Encephalopathy due to postnatal cerebral infection. Both focal and generalized types of cerebral infection are included and are to be given further anatomic and etiologic specification.

Encephalopathy, congenital, associated with maternal toxemia of pregnancy. Severe and prolonged toxemia of pregnancy, particularly eclampsia, may be associated with mental retardation.

Encephalopathy, congenital, associated with other maternal intoxications. Examples are carbon monoxide, lead, arsenic, quinine, ergot, etc.

¹ For a fuller definition of terms see the "Manual on Terminology and Classification in Mental Retardation," (Supplement to *American Journal of Mental Deficiency*, Second Edition, 1961) from which most of this section has been adapted.

² The IQs specified are for the Revised Stanford-Binet Tests of Intelligence, Forms L and M. Equivalent values for other tests are listed in the manual cited in the footnote above.

Bilirubin encephalopathy (Kernicterus). Frequently due to Rh, A, B, O blood group incompatibility between fetus and mother but may also follow prematurity, severe neonatal sepsis or any condition producing high levels of serum bilirubin. Choreaathetosis is frequently associated with this form of mental retardation.

Post-immunization encephalopathy. This may follow inoculation with serum, particularly anti-tetanus serum, or vaccines such as small-

pox, rabies, and typhoid.

Encephalopathy, other, due to intoxication. May result from such toxic agents as lead, carbon monoxide, tetanus and botulism exotoxin.

.1 Following trauma or physical agent

Further specification within this category follows:

Encephalopathy due to prenatal injury. This includes prenatal irradiation and asphyxia, the latter following maternal anoxia, anemia, and hypotension.

Encephalopathy due to mechanical injury at birth. These are attributed to difficulties of labor due to malposition, malpresentation, disproportion, or other complications leading to dystocia which may increase the probability of damage to the infant's brain at birth, resulting in tears of the meninges, blood vessels, and brain substance. Other reasons include venous-sinus thrombosis, arterial embolism and thrombosis. These may result in sequelae which are indistinguishable from those of other injuries, damage or organic impairment of the brain.

Encephalopathy due to asphyxia at birth. Attributable to the anoxemia following interference with placental circulation due to premature separation, placenta praevia, cord difficulties, and other interferences with oxygenation of the placental circulation.

Encephalopathy due to postnatal injury. The diagnosis calls for evidence of severe trauma such as a fractured skull, prolonged unconsciousness, etc., followed by a marked change in development. Postnatal asphyxia, infarction, thrombosis, laceration, and contusion of the brain would be included and the nature of the injury specified.

.2 With disorders of metabolism, growth or nutrition

All conditions associated with mental retardation directly due to metabolic, nutritional, or growth dysfunction should be classified here, includ-

ing disorders of lipid, carbohydrate and protein metabolism, and deficiencies of nutrition.

Cerebral lipiodosis, infantile (Tay-Sach's disease). This is caused by a single recessive autosomal gene and has infantile and juvenile forms. In the former there is gradual deterioration, blindness after the pathognomonic "cherry-red spot," with death occurring usually before age three.

Cerebral lipoidosis, late infantile (Bielschowsky's disease). This differs from the preceding by presenting retinal optic atrophy instead of the "cherry-red spot."

Cerebral lipiodosis, juvenile (Spielmeyer-Vogt disease). This usually appears between the ages of five and ten with involvement of the motor systems, frequent seizures, and pigmentary degeneration of the retina. Death follows in five to ten years.

Cerebral lipiodosis, late juvenile (Kufs' disease). This is categorized under mental retardation only when it occurs at an early age.

Lipid histiocytosis of kerasin type (Gaucher's disease). As a rule this condition causes retardation only when it affects infants. It is characterized by Gaucher's cells in lymph nodes, spleen or marrow.

Lipid histiocytosis of phosphatide type (Niemann-Pick's disease). Distinguished from Tay-Sach's disease by enlargement of liver and spleen. Biopsy of spleen, lymph or marrow show characteristic "foam cells."

Phenylketonuria. A metabolic disorder, genetically transmitted as a simple autosomal recessive gene, preventing the conversion of phenylalanine into tyrosine with an accumulation of phenylalanine, which in turn is converted to phenylpyruvic acid detectable in the urine.

Hepatolenticular degeneration (Wilson's disease). Genetically transmitted as a simple autosomal recessive. It is due to inability of ceruloplasmin to bind copper, which in turn damages the brain. Rare in children.

Porphyria. Genetically transmitted as a dominant and characterized by excretion of porphyrins in the urine. It is rare in children, in whom it may cause irreversible deterioration.

Galactosemia. A condition in which galactose is not metabolized, causing its accumulation in the blood. If milk is not removed from the diet, generalized organ deficiencies, mental deterioration and death may result.

Glucogenosis (Von Gierke's disease). Due to a deficiency in glycogen-metabolizing enzymes with deposition of glycogen in various organs, including the brain.

Hypoglycemia. Caused by various conditions producing hypoglycemia which, in the infant, may result in epilepsy and mental defect. Diagnosis may be confirmed by glucose tolerance tests.

3 Associated with gross brain disease (postnatal)

This group includes all diseases and conditions associated with neoplasms, but not growths that are secondary to trauma or infection. The category also includes a number of postnatal diseases and conditions in which the structural reaction is evident but the etiology is unknown or uncertain, though frequently presumed to be of hereditary or familial nature. Structural reactions may be degenerative, infiltrative, inflammatory, proliferative, sclerotic, or reparative.

Neurofibromatosis (Neurofibroblastomatosis, von Recklinghausen's disease). A disease transmitted by a dominant autosomal gene but with reduced penetrance and variable expressivity. It is characterized by cutaneous pigmentation ("café au lait" patches) and neurofibromas of nerve, skin and central nervous system with intellectual capacity varying from normal to severely retarded.

Trigeminal cerebral angioma (Sturge-Weber-Dimitri's disease). A condition characterized by a "port wine stain" or cutaneous angioma, usually in the distribution of the trigeminal nerve, accompanied by vascular malformation over the meninges of the parietal and occipital lobes with underlying cerebral maldevelopment.

Tuberous sclerosis (Epiloia, Bourneville's disease). Transmitted by a dominant autosomal gene, characterized by multiple gliotic nodules in the central nervous system, and associated with adenoma sebaceum of the face and tumors in other organs. Retarded development and seizures may appear early and increase in severity along with tumor growth.

Intracranial neoplasm, other. Other relatively rare neoplastic diseases leading to mental retardation should be included in this category and specified when possible.

Encephalopathy associated with diffuse sclerosis of the brain. This category includes a number of similar conditions differing to some extent in their pathological and clinical features but characterized

by diffuse demyelination of the white matter with resulting diffuse glial sclerosis and accompanied by intellectual deterioration. These diseases are often familial in character and when possible should be specified under the following:

Acute infantile diffuse sclerosis (Krabbe's disease).

Diffuse chronic infantile sclerosis (Merzbacher-Pelizaeus disease, Aplasia axialis extracorticalis congenita).

Infantile metachromatic leukodystrophy (Greenfield's disease).

Juvenile metachromatic leukodystrophy (Scholz' disease).

Progressive subcortical encephalopathy (Encephalitis periaxialis diffusa, Schilder's disease).

Spinal sclerosis (Friedreich's ataxia). Characterized by cerebellar degeneration, early onset followed by dementia.

Encephalopathy, other, due to unknown or uncertain cause with the structural reactions manifest. This category includes cases of mental retardation associated with progressive neuronal degeneration or other structural defects which cannot be classified in a more specific diagnostic category.

4 Associated with diseases and conditions due to unknown pre-natal influence

This category is for classifying conditions known to have existed at the time of or prior to birth but for which no definite etiology can be established. These include the primary cranial anomalies and congenital defects of undetermined origin as follows:

Anencephaly (including hemianencephaly).

Malformations of the gyri. This includes agyria, macrogyria (pachygyria) and microgyria.

Porencephaly, congenital. Characterized by large funnel-shaped cavities occurring anywhere in the cerebral hemispheres. Specify, if possible, whether the porencephaly is a result of asphyxia at birth or postnatal trauma.

Multiple-congenital anomalies of the brain.

Other cerebral defects, congenital.

Craniosynostosis. The most common conditions included in this category are acrocephaly (oxycephaly) and scaphocephaly. These may or may not be associated with mental retardation.

Hydrocephalus, congenital. Under this heading is included only that type of hydrocephalus present at birth or occurring soon after delivery. All other types of hydrocephalus, secondary to other conditions, should be classified under the specific etiology when known.

Hypertelorism (Greig's disease). Characterized by abnormal development of the sphenoid bone increasing the distance between the eyes.

Macrocephaly (Megalencephaly). Characterized by an increased size and weight of the brain due partially to proliferation of glia.

Microcephaly, primary. True microcephaly is probably transmitted as a single autosomal recessive. When it is caused by other conditions it should be classified according to the primary condition, with secondary microcephaly as a supplementary term.

Laurence-Moon-Biedl syndrome. Characterized by mental retardation associated with retinitis pigmentosa, adiposo-genital dys trophy, and polydactyly.

.5 With chromosomal abnormality

This group includes cases of mental retardation associated with chromosomal abnormalities. These may be divided into two sub-groups, those associated with an abnormal number of chromosomes and those with abnormal chromosomal morphology.

Autosomal trisomy of group G. (Trisomy 21, Langdon-Down disease, Mongolism). This is the only common form of mental retardation due to chromosomal abnormality. (The others are relatively rare.) It ranges in degree from moderate to severe with infrequent cases of mild retardation. Other congenital defects are frequently present, and the intellectual development decelerates with time.

Autosomal trisomy of group E.

Sex chromosome anomalies. The only condition under the category which has any significant frequency is Klinefelter's syndrome.

Abnormal number of chromosomes, other. In this category would be included monosomy G, and possibly others as well as other forms of mosaicism.

Short arm deletion of chromosome 5—group B (Cri du chat). A quite rare condition characterized by congenital abnormalities and a cat-like cry during infancy which disappears with time.

Short arm deletion of chromosome 18—group E.

Abnormal morphology of chromosomes, other. This category includes a variety of translocations, ring chromosomes, fragments, and iso-chromosomes associated with mental retardation.

.6 Associated with prematurity

This category includes retarded patients who had a birth weight of less than 2500 grams (5.5 pounds) and/or a gestational age of less than 38 weeks at birth, and who do not fall into any of the preceding categories. This diagnosis should be used only if the patient's mental retardation cannot be classified more precisely under categories .0 to .5 above.

.7 Following major psychiatric disorder

This category is for mental retardation following psychosis or other major psychiatric disorder in early childhood when there is no evidence of cerebral pathology. To make this diagnosis there must be good evidence that the psychiatric disturbance was extremely severe. For example, retarded young adults with residual schizophrenia should not be classified here.

.8 With psycho-social (environmental) deprivation

This category is for the many cases of mental retardation with no clinical or historical evidence of organic disease or pathology but for which there is some history of psycho-social deprivation. Cases in this group are classified in terms of psycho-social factors which appear to bear some etiological relationship to the condition as follows:

Cultural-familial mental retardation. Classification here requires that evidence of retardation be found in at least one of the parents and in one or more siblings, presumably, because some degree of cultural deprivation results from familial retardation. The degree of retardation is usually mild.

Associated with environmental deprivation. An individual deprived of normal environmental stimulation in infancy and early childhood may prove unable to acquire the knowledge and skills required to function normally. This kind of deprivation tends to be more severe than that associated with familial mental retardation (q.v.).

This type of deprivation may result from severe sensory impairment, even in an environment otherwise rich in stimulation. More rarely

it may result from severe environmental limitations or atypical cultural milieus. The degree of retardation is always marginal or mild.

.9 With other [and unspecified] condition.

II. ORGANIC BRAIN SYNDROMES

(Disorders caused by or associated with impairment of brain tissue function)

These disorders are manifested by the following symptoms:

- (a) Impairment of orientation
- (b) Impairment of memory
- (c) Impairment of all intellectual functions such as comprehension, calculation, knowledge, learning, etc.
- (d) Impairment of judgment
- (e) Liability and shallowness of affect

The organic brain syndrome is a basic mental condition characteristically resulting from diffuse impairment of brain tissue function from whatever cause. Most of the basic symptoms are generally present to some degree regardless of whether the syndrome is mild, moderate or severe.

The syndrome may be the only disturbance present. It may also be associated with psychotic symptoms and behavioral disturbances. The severity of the associated symptoms is affected by and related to not only the precipitating organic disorder but also the patient's inherent personality patterns, present emotional conflicts, his environmental situation, and interpersonal relations.

These brain syndromes are grouped into psychotic and non-psychotic disorders according to the severity of functional impairment. The psychotic level of impairment is described on page 23 and the non-psychotic on pages 31-32.

It is important to distinguish "acute" from "chronic" brain disorders because of marked differences in the course of illness, prognosis and treatment. The terms indicate primarily whether the brain pathology and its accompanying organic brain syndrome is reversible. Since the same etiology may produce either temporary or permanent brain damage, a brain disorder which appears reversible (acute) at the beginning may prove later to have left permanent damage and a persistent organic brain syndrome which will then be diagnosed "chronic". Some

brain syndromes occur in either form. Some occur only in acute forms (e.g. *Delirium tremens*). Some occur only in chronic form (e.g. *Alcoholic deterioration*). The acute and chronic forms may be indicated for those disorders coded in four digits by the addition of a fifth qualifying digit: .x1 *acute* and .x2 *chronic*.

THE PSYCHOSES

Psychoses are described in two places in this Manual, here with the organic brain syndromes and later with the functional psychoses. The general discussion of psychosis appears here because organic brain syndromes are listed first in DSM-II.

Patients are described as psychotic when their mental functioning is sufficiently impaired to interfere grossly with their capacity to meet the ordinary demands of life. The impairment may result from a serious distortion in their capacity to recognize reality. Hallucinations and delusions, for example, may distort their perceptions. Alterations of mood may be so profound that the patient's capacity to respond appropriately is grossly impaired. Deficits in perception, language and memory may be so severe that the patient's capacity for mental grasp of his situation is effectively lost.

Some confusion results from the different meanings which have become attached to the word "psychosis." Some non-organic disorders, (295-298), in the well-developed form in which they were first recognized, typically rendered patients psychotic. For historical reasons these disorders are still classified as psychoses, even though it now generally is recognized that many patients for whom these diagnoses are clinically justified are not in fact psychotic. This is true particularly in the inpatient or convalescent stages of the illness. To reduce confusion, when one of these disorders listed as a "psychosis" is diagnosed in a patient who is not psychotic, the qualifying phrase *not psychotic* or *not presently psychotic* should be noted and coded .x6 with a fifth digit.

Example: 295.06 *Schizophrenia, simple type, not psychotic*.

It should be noted that this Manual permits an organic condition to be classified as a psychosis only if the patient is psychotic during the episode being diagnosed.

If the specific physical condition underlying one of these disorders is known, indicate it with a separate, additional diagnosis.

II. A. PSYCHOSES ASSOCIATED WITH ORGANIC BRAIN SYNDROMES (290—294)

290 Senile and Pre-senile dementia

290.0 Senile dementia

This syndrome occurs with senile brain disease, whose causes are largely unknown. The category does not include the pre-senile psychoses nor other degenerative diseases of the central nervous system. While senile brain disease derives its name from the age group in which it is most commonly seen, its diagnosis should be based on the brain disorder present and not on the patient's age at times of onset. Even mild cases will manifest some evidence of organic brain syndrome: self-centeredness, difficulty in assimilating new experiences, and childish emotionality. Deterioration may be minimal or progress to vegetative existence. (This condition was called "Chronic Brain Syndrome associated with senile brain disease" in DSM-II.)

290.1 Pre-senile dementia

This category includes a group of cortical brain diseases presenting clinical pictures similar to those of senile dementia but appearing characteristically in younger age groups. Alzheimer's and Pick's diseases are the two best known forms, each of which has a specific brain pathology. (In DSM-I Alzheimer's disease was classified as "Chronic Brain Syndrome with other disturbance of metabolism." Pick's disease was "Chronic Brain Syndrome associated with disease of unknown cause.") When the impairment is not of psychotic proportion the patient should be classified under *Non-psychotic OBS with senile or pre-senile brain disease*.

291 Alcoholic psychoses

Alcoholic psychoses are psychoses caused by poisoning with alcohol (see page 23). When a pre-existing psychotic, psychoneurotic or other disorder is aggravated by modest alcohol intake, the underlying condition, not the alcoholic psychosis, is diagnosed.

Simple drunkenness, when not specified as psychotic, is classified under *Non-psychotic OBS with alcohol*.

In accordance with ICD-8, this Manual subdivides the alcoholic psychoses into *Delirium tremens*, *Korsakoff's psychosis*, *Other alcoholic hallucinosis* and *Alcoholic paranoia*. DSM-II also adds three further

subdivisions: *Acute alcohol intoxication*, *Alcoholic deterioration* and *Pathological intoxication*. (In DSM-I "Acute Brain Syndrome, alcohol intoxication" included what is now *Delirium tremens*, *Other alcoholic hallucinosis*, *Acute alcohol intoxication* and *Pathological intoxication*.)

291.0 Delirium tremens

This is a variety of acute brain syndrome characterized by delirium, coarse tremors, and frightening visual hallucinations usually becoming more intense in the dark. Because it was first identified in alcoholics and until recently was thought always to be due to alcohol ingestion, the term is restricted to the syndrome associated with alcohol. It is distinguished from *Other alcoholic hallucinosis* by the tremors and the disordered sensorium. When this clinical picture is due to a nutritional deficiency rather than to alcohol poisoning, it is classified under *Psychosis associated with metabolic or nutritional disorder*.

291.1 Korsakoff's psychosis (alcoholic) Also "Korsakoff"

This is a variety of chronic brain syndrome associated with longstanding alcohol use and characterized by memory impairment, disorientation, peripheral neuropathy and particularly by confabulation. Like delirium tremens, Korsakoff's psychosis is identified with alcohol because of an initial error in identifying its cause, and therefore the term is confined to the syndrome associated with alcohol. The similar syndrome due to nutritional deficiency unassociated with alcohol is classified *Psychosis associated with metabolic or nutritional disorder*.

291.2 Other alcoholic hallucinosis

Hallucinoses caused by alcohol which cannot be diagnosed as delirium tremens, Korsakoff's psychosis, or alcoholic deterioration fall in this category. A common variety manifests accusatory or threatening auditory hallucinations in a state of relatively clear consciousness. This condition must be distinguished from schizophrenia in combination with alcohol intoxication, which would require two diagnoses.

291.3 Alcohol paranoid state ((Alcoholic paranoia))

This term describes a paranoid state which develops in chronic alcoholics, generally male, and is characterized by excessive jealousy and delusions of infidelity by the spouse. Patients diagnosed under pri-

mary paranoid states or schizophrenia should not be included here even if they drink to excess.

291.4* Acute alcohol intoxication*

All varieties of acute brain syndromes of psychotic proportion caused by alcohol are included here if they do not manifest features of delirium tremens, alcoholic hallucinosis, or pathological intoxication. This diagnosis is used alone when there is no other psychiatric disorder or as an additional diagnosis with other psychiatric conditions including alcoholism. The condition should not be confused with *simple drunkenness*, which does not involve psychosis. (All patients with this disorder would have been diagnosed "Acute Brain Syndrome, alcohol intoxication" in DSM-I.)

291.5* Alcoholic deterioration*

All varieties of chronic brain syndromes of psychotic proportion caused by alcohol and not having the characteristic features of Korsakov's psychosis are included here. (This condition and Korsakov's psychosis were both included under "Chronic Brain Syndrome, alcohol intoxication with psychotic reaction" in DSM-I.)

291.6* Pathological intoxication*

This is an acute brain syndrome manifested by psychosis after minimal alcohol intake. (In DSM-I this diagnosis fell under "Acute Brain Syndrome, alcohol intoxication.")

291.9 Other [and unspecified] alcoholic psychosis

This term refers to all varieties of alcoholic psychosis not classified above.

292 Psychosis associated with intracranial infection

292.0 General paralysis

This condition is characterized by physical signs and symptoms of parenchymatosus syphilis of the nervous system, and usually by positive serology, including the paretic gold curve in the spinal fluid. The condition may simulate any of the other psychoses and brain syndromes. If the impairment is not of psychotic proportion it is classified *Non-psychotic OBS with intracranial infection*. If the specific underlying physical condition is known, indicate it with a separate, additional diagnosis. (This category was included under "Chronic Brain Syndrome associated with central nervous system syphilis (meningoencephalitic)" in DSM-I.)

292.1 Psychosis with other syphilis of central nervous system

This includes all other varieties of psychosis attributed to intracranial infection by **Spirochaeta pallida**. The syndrome sometimes has features of organic brain syndrome. The acute infection is usually produced by meningo-vascular inflammation and responds to systemic antisiphilitic treatment. The chronic condition is generally due to gummatia. If not of psychotic proportion, the disorder is classified *Non-psychotic OBS with intracranial infection*. (In DSM-I "Chronic Brain Syndrome associated with other central nervous system syphilis" and "Acute Brain Syndrome associated with intracranial infection" covered this category.)

292.2 Psychosis with epidemic encephalitis (von Economo's encephalitis)

This term is confined to the disorder attributed to the viral epidemic encephalitis that followed World War I. Virtually no cases have been reported since 1926. The condition, however, is differentiated from other encephalitis. It may present itself as acute delirium and sometimes its outstanding feature is apparent indifference to persons and events ordinarily of emotional significance, such as the death of a family member. It may appear as a chronic brain syndrome and is sometimes dominated by involuntary, compulsive behavior. If not of psychotic proportions, the disorder is classified under *Non-psychotic OBS with intracranial infection*. (This category was classified under "Chronic Brain Syndrome associated with intracranial infection other than syphilis" in DSM-I.)

292.3 Psychosis with other and unspecified encephalitis

This category includes disorders attributed to encephalitic infections other than epidemic encephalitis and also to encephalitis not otherwise specified.¹ When possible the type of infection should be indicated. If not of psychotic proportion, the disorder is classified under *Non-psychotic OBS with intracranial infection*.

292.9 Psychosis with other [and unspecified] intracranial infection

This category includes all acute and chronic conditions due to non-syphilitic and non-encephalitic infections, such as meningitis and

¹ A list of important encephalitides may be found in "A Guide to the Control of Mental Disorders," American Public Health Association Inc., New York 1962, pp. 40 ff.

brain abscess. Many of these disorders will have been diagnosed as the acute form early in the course of the illness. If not of psychotic proportion, the disorder should be classified under *Non-psychotic OBS with intracranial infection*. (In DSM-I the acute variety was classified as "Acute Brain Syndrome associated with intracranial infection" and the chronic variety as "Chronic Brain Syndrome associated with intracranial infection other than syphilis.")

293 Psychosis associated with other cerebral condition

This major category, as its name indicates, is for all psychoses associated with cerebral conditions *other* than those previously defined. For example, the degenerative diseases following do *not* include the previous senile dementia. If the specific underlying physical condition is known, indicate it with a separate, additional diagnosis.

293.0 Psychosis with cerebral arteriosclerosis

This is a chronic disorder attributed to cerebral arteriosclerosis. It may be impossible to differentiate it from senile dementia and pre-senile dementia, which may coexist with it. Careful consideration of the patient's age, history, and symptoms may help determine the predominant pathology. Commonly, the organic brain syndrome is the only mental disturbance present, but other reactions, such as depression or anxiety, may be superimposed. If not of psychotic proportion, the condition is classified under *Non-psychotic OBS with circulatory disturbance*. (In DSM-I this was called "Chronic Brain Syndrome associated with cerebral arteriosclerosis.")

293.1 Psychosis with other cerebrovascular disturbance

This category includes such circulatory disturbances as cerebral thrombosis, cerebral embolism, arterial hypertension, cardio-renal disease and cardiac disease, particularly in decompensation. It excludes conditions attributed to arteriosclerosis. The diagnosis is determined by the underlying organ pathology, which should be specified with an additional diagnosis. (In DSM-I this category was divided between "Acute Brain Syndrome associated with circulatory disturbance" and "Chronic Brain Syndrome associated with circulatory disturbance other than cerebral arteriosclerosis.")

293.2 Psychosis with epilepsy

This category is to be used only for the condition associated with "idiopathic" epilepsy. Most of the etiological agents underlying chronic brain syndromes can and do cause convulsions, particularly

syphilis, intoxication, trauma, cerebral arteriosclerosis, and intracranial neoplasms. When the convulsions are symptomatic of such diseases, the brain syndrome is classified under those disturbances rather than here. The disturbance most commonly encountered here is the clouding of consciousness before or after a convulsive attack. Instead of a convolution, the patient may show only a dazed reaction with deep confusion, bewilderment and anxiety. The epileptic attack may also take the form of an episode of excitement with hallucinations, fears, and violent outbreaks. (In DSM-I this was included in "Acute Brain Syndrome associated with convulsive disorder" and "Chronic Brain Syndrome associated with convulsive disorder.")

293.3 Psychosis with intracranial neoplasm

Both primary and metastatic neoplasms are classified here. Reactions to neoplasms other than in the cranium should not receive this diagnosis. (In DSM-I this category included "Acute Brain Syndrome associated with intracranial neoplasm" and "Chronic Brain Syndrome associated with intracranial neoplasm.")

293.4 Psychosis with degenerative disease of the central nervous system

This category includes degenerative brain diseases not listed previously. (In DSM-I this was part of "Acute Brain Syndrome with disease of unknown or uncertain cause" and "Chronic Brain Syndrome associated with diseases of unknown or uncertain cause.")

293.5 Psychosis with brain trauma

This category includes those disorders which develop immediately after severe head injury or brain surgery and the post-traumatic chronic brain disorders. It does not include permanent brain damage which produces only focal neurological changes without significant changes in sensorium and affect. Generally, trauma producing a chronic brain syndrome is diffuse and causes permanent brain damage. If not of psychotic proportions, a post-traumatic personality disorder associated with an organic brain syndrome is classified as a *Non-psychotic OBS with brain trauma*. If the brain injury occurs in early life and produces a developmental defect of intelligence, the condition is also diagnosed *Mental retardation*. A head injury may precipitate or accelerate the course of a chronic brain disease, especially cerebral arteriosclerosis. The differential diagnosis may be extremely difficult. If, before the injury, the patient had symptoms of circulatory disturbance, particularly arteriosclerosis,

and now shows signs of psychosis, he should be classified *Psychosis with cerebral arteriosclerosis*. (In DSM-I this category was divided between "Acute Brain Syndrome associated with trauma" and "Chronic Brain Syndrome associated with brain trauma.")

293.9 Psychosis with other [and unspecified] cerebral condition

This category is for cerebral conditions other than those listed above, and conditions for which it is impossible to make a more precise diagnosis. [Medical record librarians will include here *Psychoses with cerebral condition, not otherwise specified*.]

294 Psychosis associated with other physical condition

The following psychoses are caused by general systemic disorders and are distinguished from the *cerebral* conditions previously described. If the specific underlying physical condition is known, indicate it with a separate, additional diagnosis.

294.0 Psychosis with endocrine disorder

This category includes disorders caused by the complications of diabetes other than cerebral arteriosclerosis and disorders of the thyroid, pituitary, adrenals, and other endocrine glands. (In DSM-I "Chronic Brain Syndrome associated with other disturbances of metabolism, growth or nutrition" included the chronic variety of these disorders. DSM-I defined these conditions as "disorders of metabolism" but they here are considered endocrine disorders.)

294.1 Psychosis with metabolic or nutritional disorder

This category includes disorders caused by pellagra, avitaminosis and metabolic disorders. (In DSM-I this was part of "Acute Brain Syndrome associated with metabolic disturbance" and "Chronic Brain Syndrome associated with other disturbance of metabolism, growth or nutrition.")

294.2 Psychosis with systemic infection

This category includes disorders caused by severe general systemic infections, such as pneumonia, typhoid fever, malaria and acute rheumatic fever. Care must be taken to distinguish these reactions from other disorders, particularly manic depressive illness and schizophrenia, which may be precipitated by even a mild attack of infectious disease. (In DSM-I this was confined to "Acute Brain Syndrome associated with systemic infection.")

294.3 Psychosis with drug or poison intoxication (other than alcohol)

This category includes disorders caused by some drugs (including psychedelic drugs), hormones, heavy metals, glasses, and other intoxicants except alcohol. (In DSM-I these conditions were divided between "Acute Brain Syndrome, drug or poison intoxication" and "Chronic Brain Syndrome, associated with intoxication." The former excluded alcoholic acute brain syndromes, while the latter included alcoholic chronic brain syndromes.)

294.4 Psychosis with childbirth

Almost any type of psychosis may occur during pregnancy and the post-partum period and should be specifically diagnosed. This category is not a substitute for a differential diagnosis and excludes other psychoses arising during the puerperium. Therefore, this diagnosis should not be used unless all other possible diagnoses have been excluded.

294.8 Psychosis with other and undiagnosed physical condition

This is a residual category for psychoses caused by physical conditions other than those listed earlier. It also includes brain syndromes caused by physical conditions which have not been diagnosed. (In DSM-I this condition was divided between "Acute Brain Syndrome of unknown cause" and "Chronic Brain Syndrome of unknown cause." However, these categories also included the category now called *Psychosis with other [and unspecified] cerebral condition*.)

[294.9 Psychosis with unspecified physical condition]

This is not a diagnosis but is included for use by medical record librarians only.

II. B. NON-PSYCHOTIC ORGANIC BRAIN SYNDROMES (309)

309 Non-psychotic organic brain syndromes ((Mental disorders not specified as psychotic associated with physical conditions))

This category is for patients who have an organic brain syndrome but are not psychotic. If psychoses are present they should be diagnosed as previously indicated. Refer to pages 22-23 for description of organic brain syndromes in adults.

In children mild brain damage often manifests itself by hyperactivity, short attention span, easy distractability, and impulsiveness. Some-

times the child is withdrawn, listless, perseverative, and unresponsive. In exceptional cases there may be great difficulty in initiating action. These characteristics often contribute to a negative interaction between parent and child. If the organic handicap is the major etiological factor and the child is not psychotic, the case should be classified here.

If the interactional factors are of major secondary importance, supply a second diagnosis under *Behavior disorders of childhood and adolescence*; if these interactional factors predominate give only a diagnosis from this latter category.

309.0 Non-psychotic OBS with intracranial infection

309.1 Non-psychotic OBS with drug, poison, or systemic intoxication

309.13* Non-psychotic OBS with alcohol* (simple drunkenness)

309.14* Non-psychotic OBS with other drug, poison, or systemic intoxication*

309.2 Non-psychotic OBS with brain trauma

309.3 Non-psychotic OBS with circulatory disturbance

309.4 Non-psychotic OBS with epilepsy

309.5 Non-psychotic OBS with disturbance of metabolism, growth or nutrition

309.6 Non-psychotic OBS with senile or presenile brain disease

309.7 Non-psychotic OBS with intracranial neoplasm

309.8 Non-psychotic OBS with degenerative disease of central nervous system

309.9 Non-psychotic OBS with other [and unspecified] physical condition

[.91* Acute brain syndrome, not otherwise specified*]

[.92* Chronic brain syndrome, not otherwise specified*]

III. PSYCHOSES NOT ATTRIBUTED TO PHYSICAL CONDITIONS LISTED PREVIOUSLY (295—298)

This major category is for patients whose psychosis is not caused by physical conditions listed previously. Nevertheless, some of these patients may show additional signs of an organic condition. If these or-

ganic signs are prominent the patient should receive the appropriate additional diagnosis.

295 Schizophrenia

This large category includes a group of disorders manifested by characteristic disturbances of thinking, mood and behavior. Disturbances in thinking are marked by alterations of concept formation which may lead to misinterpretation of reality and sometimes to delusions and hallucinations, which frequently appear psychologically self-protective. Corollary mood changes include ambivalent, constricted and inappropriate emotional responsiveness and loss of empathy with others. Behavior may be withdrawn, regressive and bizarre. The schizophrenias, in which the mental status is attributable primarily to a *thought* disorder, are to be distinguished from the *Major affective illnesses* (q.v.) which are dominated by a *mood* disorder. The *Paranoid states* (q.v.) are distinguished from schizophrenia by the narrowness of their distortions of reality and by the absence of other psychotic symptoms.

295.0 Schizophrenia, simple type

This psychosis is characterized chiefly by a slow and insidious reduction of external attachments and interests and by apathy and indifference leading to impoverishment of interpersonal relations, mental deterioration, and adjustment on a lower level of functioning. In general, the condition is less dramatically psychotic than are the hebephrenic, catatonic, and paranoid types of schizophrenia. Also, it contrasts with schizoid personality, in which there is little or no progression of the disorder.

295.1 Schizophrenia, hebephrenic type

This psychosis is characterized by disorganized thinking, shallow and inappropriate affect, unpredictable giggling, silly and regressive behavior and mannerisms, and frequent hypochondriacal complaints. Delusions and hallucinations, if present, are transient and not well organized.

295.2 Schizophrenia, catatonic type

295.23* Schizophrenia, catatonic type, excited*

295.24* Schizophrenia, catatonic type, withdrawn*

It is frequently possible and useful to distinguish two subtypes of catatonic schizophrenia. One is marked by excessive and sometimes violent motor activity and excitement and the other by generalized

inhibition manifested by stupor, mutism, negativism, or waxy flexibility. In time, some cases deteriorate to a vegetative state.

295.3 Schizophrenia, paranoid type

This type of schizophrenia is characterized primarily by the presence of persecutory or grandiose delusions, often associated with hallucinations. Excessive religiosity is sometimes seen. The patient's attitude is frequently hostile and aggressive, and his behavior tends to be consistent with his delusions. In general the disorder does not manifest the gross personality disorganization of the hebephrenic and catatonic types, perhaps because the patient uses the mechanism of projection, which ascribes to others characteristics he cannot accept in himself. Three subtypes of the disorder may sometimes be differentiated, depending on the predominant symptoms: hostile, grandiose, and hallucinatory.

295.4 Acute schizophrenic episode

This diagnosis does not apply to acute episodes of schizophrenic disorders described elsewhere. This condition is distinguished by the acute onset of schizophrenic symptoms, often associated with confusion, perplexity, ideas of reference, emotional turmoil, dreamlike dissociation, and excitement, depression, or fear. The acute onset distinguishes this condition from simple schizophrenia. In time these patients may take on the characteristics of catatonic, hebephrenic or paranoid schizophrenia, in which case their diagnosis should be changed accordingly. In many cases the patient recovers within weeks, but sometimes his disorganization becomes progressive. More frequently remission is followed by recurrence. (In DSM-I this condition was listed as "Schizophrenia, acute undifferentiated type.")

295.5 Schizophrenia, latent type

This category is for patients having clear symptoms of schizophrenia but no history of a psychotic schizophrenic episode. Disorders sometimes designated as incipient, pre-psychotic, pseudoneurotic, pseudo-psychopathic, or borderline schizophrenia are categorized here. (This category includes some patients who were diagnosed in DSM-I under "Schizophrenic reaction, chronic undifferentiated type." Others formerly included in that DSM-I category are now classified under *Schizophrenia, other [and unspecified] types* (q.v.).)

295.6 Schizophrenia, residual type

This category is for patients showing signs of schizophrenia but

who, following a psychotic schizophrenic episode, are no longer psychotic.

295.7 Schizophrenia, schizo-affective type

This category is for patients showing a mixture of schizophrenic symptoms and pronounced elation or depression. Within this category it may be useful to distinguish excited from depressed types as follows:

295.73* Schizophrenia, schizo-affective type, excited*

295.74* Schizophrenia, schizo-affective type, depressed*

295.8* Schizophrenia, childhood type*

This category is for cases in which schizophrenic symptoms appear before puberty. The condition may be manifested by autistic, atypical, and withdrawn behavior; failure to develop identity separate from the mother's; and general unevenness, gross immaturity and inadequacy in development. These developmental defects may result in mental retardation, which should also be diagnosed. (This category is for use in the United States and does not appear in ICD-8. It is equivalent to "Schizophrenic reaction, childhood type" in DSM-I.)

295.90* Schizophrenia, chronic undifferentiated type*

This category is for patients who show mixed schizophrenic symptoms and who present definite schizophrenic thought, affect and behavior not classifiable under the other types of schizophrenia. It is distinguished from *Schizoid personality* (q.v.). (This category is equivalent to "Schizophrenic reaction, chronic undifferentiated type" in DSM-I except that it does not include cases now diagnosed as *Schizophrenia, latent type* and *Schizophrenia, other [and unspecified] types*.)

295.99* Schizophrenia, other [and unspecified] types*

This category is for any type of schizophrenia not previously described. (In DSM-I "Schizophrenic reaction, chronic undifferentiated type" included this category and also what is now called *Schizophrenia, latent type* and *Schizophrenia, chronic undifferentiated type*.)

296 Major affective disorders ((Affective psychoses))

This group of psychoses is characterized by a single disorder of mood, either extreme depression or elation, that dominates the mental life of the patient and is responsible for whatever loss of contact he has with his environment. The onset of the mood does not seem to be

related directly to a precipitating life experience and therefore is distinguishable from *Psychotic depressive reaction* and *Depressive neurosis*. (This category is not equivalent to the DSM-I heading "Affective reactions," which included "Psychotic depressive reaction.")

296.0 Involutional melancholia

This is a disorder occurring in the involutional period and characterized by worry, anxiety, agitation, and severe insomnia. Feelings of guilt and somatic preoccupations are frequently present and may be of delusional proportions. This disorder is distinguishable from *Manic-depressive illness* (q.v.) by the absence of previous episodes; it is distinguished from *Schizophrenia* (q.v.) in that impaired reality testing is due to a disorder of mood; and it is distinguished from *Psychotic depressive reaction* (q.v.) in that the depression is not due to some life experience. Opinion is divided as to whether this psychosis can be distinguished from the other affective disorders. It is, therefore, recommended that involutional patients not be given this diagnosis unless all other affective disorders have been ruled out. (In DSM-I this disorder was considered one of two subtypes of "Involutional Psychotic Reaction.")

Manic-depressive illnesses (Manic-depressive psychoses)

These disorders are marked by severe mood swings and a tendency to remission and recurrence. Patients may be given this diagnosis in the absence of a previous history of affective psychosis if there is no obvious precipitating event. This disorder is divided into three major subtypes: manic type, depressed type, and circular type.

296.1 Manic-depressive illness, manic type ((Manic-depressive psychosis, manic type))

This disorder consists exclusively of manic episodes. These episodes are characterized by excessive elation, irritability, talkativeness, flight of ideas, and accelerated speech and motor activity. Brief periods of depression sometimes occur, but they are never true depressive episodes.

296.2 Manic-depressive illness, depressed type ((Manic-depressive psychosis, depressed type))

This disorder consists exclusively of depressive episodes. These episodes are characterized by severely depressed mood and by mental and motor retardation progressing occasionally to stupor. Uneasiness, apprehension, perplexity and agitation may also be present.

When illusions, hallucinations, and delusions (usually of guilt or of hypochondriacal or paranoid ideas) occur, they are attributable to the dominant mood disorder. Because it is a primary mood disorder, this psychosis differs from the *Psychotic depressive reaction*, which is more easily attributable to precipitating stress. Cases incompletely labelled as "psychotic depression" should be classified here rather than under *Psychotic depressive reaction*.

296.3 Manic-depressive illness, circular type ((Manic-depressive psychosis, circular type))

This disorder is distinguished by at least one attack of both a depressive episode and a manic episode. This phenomenon makes clear why manic and depressed types are combined into a single category. (In DSM-I these cases were diagnosed under "Manic depressive reaction, other.") The current episode should be specified and coded as one of the following:

296.33* Manic-depressive illness, circular type, manic*

296.34* Manic-depressive illness, circular type, depressed*

296.8 Other major affective disorder ((Affective psychosis, other))

Major affective disorders for which a more specific diagnosis has not been made are included here. It is also for "mixed" manic-depressive illness, in which manic and depressive symptoms appear almost simultaneously. It does not include *Psychotic depressive reaction* (q.v.) or *Depressive neurosis* (q.v.). (In DSM-I this category was included under "Manic depressive reaction, other.")

[296.9 Unspecified major affective disorder] [Affective disorder not otherwise specified] [Manic-depressive illness not otherwise specified]

297 Paranoid states

These are psychotic disorders in which a delusion, generally persecutory or grandiose, is the essential abnormality. Disturbances in mood, behavior and thinking (including hallucinations) are derived from this delusion. This distinguishes paranoid states from the affective psychoses and schizophrenias, in which mood and thought disorders, respectively, are the central abnormalities. Most authorities, however, question whether disorders in this group are distinct clinical entities and not merely variants of schizophrenia or paranoid personality.

297.0 Paranoia

This extremely rare condition is characterized by gradual development of an intricate, complex, and elaborate paranoid system based on and often proceeding logically from misinterpretation of an actual event. Frequently the patient considers himself endowed with unique and superior ability. In spite of a chronic course the condition does not seem to interfere with the rest of the patient's thinking and personality.

297.1 Involutional paranoid state ((Involutional paraphrenia))

This paranoid psychosis is characterized by delusion formation with onset in the involutional period. Formerly it was classified as a paranoid variety of involutional psychotic reaction. The absence of conspicuous thought disorders typical of schizophrenia distinguishes it from that group.

297.9 Other paranoid state

This is a residual category for paranoid psychotic reactions not classified earlier.

298 Other psychoses**298.0 Psychotic depressive reaction** ((Reactive depressive psychosis))

This psychosis is distinguished by a depressive mood attributable to some experience. Ordinarily the individual has no history of repeated depressions or cyclothymic mood swings. The differentiation between this condition and *Depressive neurosis* (q.v.) depends on whether the reaction impairs reality testing or functional adequacy enough to be considered a psychosis. (In DSM-I this condition was included with the affective psychoses.)

[298.1 Reactive excitation]**[298.2 Reactive confusion]****[Acute or subacute confusional state]****[298.3 Acute paranoid reaction]****[298.9 Reactive psychosis, unspecified]****[299 Unspecified psychosis]****[Dementia, insanity or psychosis not otherwise specified]**

This is not a diagnosis but is listed here for librarians and statisticians to use in coding incomplete diagnoses. Clinicians are

expected to complete a differential diagnosis for patients who manifest features of several psychoses.

IV. NEUROSES (300)**300 Neuroses**

Anxiety is the chief characteristic of the neuroses. It may be felt and expressed directly, or it may be controlled unconsciously and automatically by conversion, displacement and various other psychological mechanisms. Generally, these mechanisms produce symptoms experienced as subjective distress from which the patient desires relief.

The neuroses, as contrasted to the psychoses, manifest neither gross distortion or misinterpretation of external reality, nor gross personality disorganization. A possible exception to this is hysterical neurosis, which some believe may occasionally be accompanied by hallucinations and other symptoms encountered in psychoses.

Traditionally, neurotic patients, however severely handicapped by their symptoms, are not classified as psychotic because they are aware that their mental functioning is disturbed.

300.0 Anxiety neurosis

This neurosis is characterized by anxious over-concern extending to panic and frequently associated with somatic symptoms. Unlike *Phobic neurosis* (q.v.), anxiety may occur under any circumstances and is not restricted to specific situations or objects. This disorder must be distinguished from normal apprehension or fear, which occurs in realistically dangerous situations.

300.1 Hysterical neurosis

This neurosis is characterized by an involuntary psychogenic loss or disorder of function. Symptoms characteristically begin and end suddenly in emotionally charged situations and are symbolic of the underlying conflicts. Often they can be modified by suggestion alone.

This is a new diagnosis that encompasses the former diagnoses "Conversion reaction" and "Dissociative reaction" in DSM-I. This distinction between conversion and dissociative reactions should be preserved by using one of the following diagnoses whenever possible.

300.13* Hysterical neurosis, conversion type*

In the conversion type, the special senses or voluntary nervous system are affected, causing such symptoms as blindness, deafness,

anosmia, anaesthesia, paraesthesia, paralyses, ataxias, akinesias, and dyskinesias. Often the patient shows an inappropriate lack of concern or *belie indifference* about these symptoms, which may actually provide secondary gains by winning him sympathy or relieving him of unpleasant responsibilities. This type of hysterical neurosis must be distinguished from psychophysiological disorders, which are mediated by the autonomic nervous system; from malinger, which is done consciously; and from neurological lesions, which cause anatomically circumscribed symptoms.

300.14* Hysterical neurosis, dissociative type*

In the dissociative type, alterations may occur in the patient's state of consciousness or in his identity, to produce such symptoms as amnesia, somnambulism, fugue, and multiple personality.

300.2 Phobic neurosis

This condition is characterized by intense fear of an object or situation which the patient consciously recognizes as no real danger to him. His apprehension may be experienced as faintness, fatigue, palpitations, perspiration, nausea, tremor, and even panic. Phobias are generally attributed to fears displaced to the phobic object or situation from some other object of which the patient is unaware. A wide range of phobias has been described.

300.3 Obsessive compulsive neurosis

This disorder is characterized by the persistent intrusion of unwanted thoughts, urges, or actions that the patient is unable to stop. The thoughts may consist of single words or ideas, ruminations, or trains of thought often perceived by the patient as nonsensical. The actions vary from simple movements to complex rituals such as repeated handwashing. Anxiety and distress are often present either if the patient is prevented from completing his compulsive ritual or if he is concerned about being unable to control it himself.

300.4 Depressive neurosis

This disorder is manifested by an excessive reaction of depression due to an internal conflict or to an identifiable event such as the loss of a love object or cherished possession. It is to be distinguished from *Involitional melancholia* (q.v.) and *Manic-depressive illness* (q.v.). *Reactive depressions* or *Depressive reactions* are to be classified here.

300.5 Neurotic neurosis ((Neurasthenia))

This condition is characterized by complaints of chronic weakness,

easy fatigability, and sometimes exhaustion. Unlike hysterical neurosis the patient's complaints are genuinely distressing to him and there is no evidence of secondary gain. It differs from *Anxiety neurosis* (q.v.) and from the *Psychophysiological disorders* (q.v.) in the nature of the predominant complaint. It differs from *Depressive neurosis* (q.v.) in the moderateness of the depression and in the chronicity of its course. (In DSM-I this condition was called "Psychophysiological nervous system reaction.")

300.6 Depersonalization neurosis ((Depersonalization syndrome))

This syndrome is dominated by a feeling of unreality and of estrangement from the self, body, or surroundings. This diagnosis should not be used if the condition is part of some other mental disorder, such as an acute situational reaction. A brief experience of depersonalization is not necessarily a symptom of illness.

300.7 Hypochondriacal neurosis

This condition is dominated by preoccupation with the body and with fear of presumed diseases of various organs. Though the fears are not of delusional quality as in psychotic depressions, they persist despite reassurance. The condition differs from hysterical neurosis in that there are no actual losses or distortions of function.

300.8 Other neurosis

This classification includes specific psychoneurotic disorders not classified elsewhere such as "writer's cramp" and other occupational neuroses. Clinicians should not use this category for patients with "mixed" neuroses, which should be diagnosed according to the predominant symptom.

[300.9 Unspecified neurosis]

This category is not a diagnosis. It is for the use of record librarians and statisticians to code incomplete diagnoses.

V. PERSONALITY DISORDERS AND CERTAIN OTHER NON-PSYCHOTIC MENTAL DISORDERS (301—304)

301 Personality disorders

This group of disorders is characterized by deeply ingrained maladaptive patterns of behavior that are perceptibly different in quality from psychotic and neurotic symptoms. Generally, these are life-long patterns, often recognizable by the time of adolescence or earlier. Sometimes the

pattern is determined primarily by malfunctioning of the brain, but such cases should be classified under one of the non-psychotic organic brain syndromes rather than here. (In DSM-I "Personality Disorders" also included disorders now classified under *Sexual deviation*, *Alcoholism*, and *Drug dependence*.)

301.0 Paranoid personality

This behavioral pattern is characterized by hypersensitivity, rigidity, unwarranted suspicion, jealousy, envy, excessive self-importance, and a tendency to blame others and ascribe evil motives to them. These characteristics often interfere with the patient's ability to maintain satisfactory interpersonal relations. Of course, the presence of suspicion of itself does not justify this diagnosis, since the suspicion may be warranted in some instances.

301.1 Cyclothymic personality ((Affective personality))

This behavior pattern is manifested by recurring and alternating periods of depression and elation. Periods of elation may be marked by ambition, warmth, enthusiasm, optimism, and high energy. Periods of depression may be marked by worry, pessimism, low energy, and a sense of futility. These mood variations are not readily attributable to external circumstances. If possible, the diagnosis should specify whether the mood is characteristically depressed, hypomanic, or alternating.

301.2 Schizoid personality

This behavior pattern manifests shyness, over-sensitivity, seclusiveness, avoidance of close or competitive relationships, and often eccentricity. Autistic thinking without loss of capacity to recognize reality is common, as is daydreaming and the inability to express hostility and ordinary aggressive feelings. These patients react to disturbing experiences and conflicts with apparent detachment.

301.3 Explosive personality (Epileptoid personality disorder)

This behavior pattern is characterized by gross outbursts of rage or of verbal or physical aggressiveness. These outbursts are strikingly different from the patient's usual behavior, and he may be regretful and repentant for them. These patients are generally considered excitable, aggressive and over-responsive to environmental pressures. It is the intensity of the outbursts and the individual's inability to control them which distinguishes this group. Cases diagnosed as "aggressive personality" are classified here. If the patient is amnesic

for the outbursts, the diagnosis of *Hysterical neurosis*, *Non-psychotic OBS with epilepsy* or *Psychosis with epilepsy* should be considered.

301.4 Obsessive compulsive personality ((Anankastic personality))

This behavior pattern is characterized by excessive concern with conformity and adherence to standards of conscience. Consequently, individuals in this group may be rigid, over-inhibited, over-conscientious, over-dutyful, and unable to relax easily. This disorder may lead to an *Obsessive compulsive neurosis* (q.v.), from which it must be distinguished.

301.5 Hysterical personality (Histrionic personality disorder)

These behavior patterns are characterized by excitability, emotional instability, over-reactivity, and self-dramatization. This self-dramatization is always attention-seeking and often seductive, whether or not the patient is aware of its purpose. These personalities are also immature, self-centered, often vain, and usually dependent on others. This disorder must be differentiated from *Hysterical neurosis* (q.v.).

301.6 Asthenic personality

This behavior pattern is characterized by easy fatigability, low energy level, lack of enthusiasm, marked incapacity for enjoyment, and oversensitivity to physical and emotional stress. This disorder must be differentiated from *Neuroasthenic neurosis* (q.v.).

301.7 Antisocial personality

This term is reserved for individuals who are basically unsocialized and whose behavior pattern brings them repeatedly into conflict with society. They are incapable of significant loyalty to individuals, groups, or social values. They are grossly selfish, callous, irresponsible, impulsive, and unable to feel guilt or to learn from experience and punishment. Frustration tolerance is low. They tend to blame others or offer plausible rationalizations for their behavior. A mere history of repeated legal or social offenses is not sufficient to justify this diagnosis. *Group delinquent reaction of childhood (or adolescence)* (q.v.), and *Social maladjustment without manifest psychiatric disorder* (q.v.) should be ruled out before making this diagnosis.

301.81* Passive-aggressive personality*

This behavior pattern is characterized by both passivity and aggressiveness. The aggressiveness may be expressed passively, for example by obstructionism, pouting, procrastination, intentional in-

efficiency, or stubbornness. This behavior commonly reflects hostility which the individual feels he dare not express openly. Often the behavior is one expression of the patient's resentment at failing to find gratification in a relationship with an individual or institution upon which he is over-dependent.

301.82* Inadequate personality*

This behavior pattern is characterized by ineffectual responses to emotional, social, intellectual and physical demands. While the patient seems neither physically nor mentally deficient, he does manifest inadaptability, ineptness, poor judgment, social instability, and lack of physical and emotional stamina.

301.89* Other personality disorders of specified types (Immature personality, Passive-dependent personality, etc.)*

301.9 [Unspecified personality disorder]

302 Sexual deviations

This category is for individuals whose sexual interests are directed primarily toward objects other than people of the opposite sex, toward sexual acts not usually associated with coitus, or toward coitus performed under bizarre circumstances as in necrophilia, pedophilia, sexual sadism, and fetishism. Even though many find their practices distasteful, they remain unable to substitute normal sexual behavior for them. This diagnosis is not appropriate for individuals who perform deviant sexual acts because normal sexual objects are not available to them.

302.0 Homosexuality

302.1 Fetishism

302.2 Pedophilia

302.3 Transvestitism

302.4 Exhibitionism

302.5* Voyeurism*

302.6* Sadism*

302.7* Masochism*

302.8 Other sexual deviation

[302.9 Unspecified sexual deviation]

303 Alcoholism

This category is for patients whose alcohol intake is great enough to damage their physical health, or their personal or social functioning, or when it has become a prerequisite to normal functioning. If the alcoholism is due to another mental disorder, both diagnoses should be made. The following types of alcoholism are recognized:

303.0 Episodic excessive drinking

If alcoholism is present and the individual becomes intoxicated as frequently as four times a year, the condition should be classified here. Intoxication is defined as a state in which the individual's coordination or speech is definitely impaired or his behavior is clearly altered.

303.1 Habitual excessive drinking

This diagnosis is given to persons who are alcoholic and who either become intoxicated more than 12 times a year or are recognizably under the influence of alcohol more than once a week, even though not intoxicated.

303.2 Alcohol addiction

This condition should be diagnosed when there is direct or strong presumptive evidence that the patient is dependent on alcohol. If available, the best direct evidence of such dependence is the appearance of withdrawal symptoms. The inability of the patient to go one day without drinking is presumptive evidence. When heavy drinking continues for three months or more it is reasonable to presume addiction to alcohol has been established.

303.9 Other [and unspecified] alcoholism

304 Drug dependence

This category is for patients who are addicted to or dependent on drugs other than alcohol, tobacco, and ordinary caffeine-containing beverages. Dependence on medically prescribed drugs is also excluded so long as the drug is medically indicated and the intake is proportionate to the medical need. The diagnosis requires evidence of habitual use or a clear sense of need for the drug. Withdrawal symptoms are not the only evidence of dependence; while always present when opium derivatives are withdrawn, they may be entirely absent when cocaine or marijuanna are withdrawn. The diagnosis may stand alone or be coupled with any other diagnosis.

304.0 Drug dependence, opium, opium alkaloids and their derivatives

304.1 Drug dependence, synthetic analgesics with morphine-like effects

304.2 Drug dependence, barbiturates

304.3 Drug dependence, other hypnotics and sedatives or "tranquillizers"

304.4 Drug dependence, cocaine

304.5 Drug dependence, Cannabis sativa (hashish, marihuana)

304.6 Drug dependence, other psycho-stimulants (amphetamines, etc.)

304.7 Drug dependence, hallucinogens

304.8 Other drug dependence

[304.9 Unspecified drug dependence]

VI. PSYCHOPHYSIOLOGIC DISORDERS (305)

305 Psychophysiological disorders (Physical disorders of presumably psychogenic origin.)

This group of disorders is characterized by physical symptoms that are caused by emotional factors and involve a single organ system, usually under autonomic nervous system innervation. The physiological changes involved are those that normally accompany certain emotional states, but in these disorders the changes are more intense and sustained. The individual may not be consciously aware of his emotional state. If there is an additional psychiatric disorder, it should be diagnosed separately, whether or not it is presumed to contribute to the physical disorder. The specific physical disorder should be named and classified in one of the following categories.

305.0 Psychophysiologic skin disorder

This diagnosis applies to skin reactions such as neurodermatosis, pruritis, atopic dermatitis, and hyperhydrosis in which emotional factors play a causative role.

305.1 Psychophysiologic musculoskeletal disorder

This diagnosis applies to musculoskeletal disorders such as backache,

muscle cramps, and myalgias, and tension headaches in which emotional factors play a causative role. Differentiation from hysterical neurosis is of prime importance and at times extremely difficult.

305.2 Psychophysiologic respiratory disorder

This diagnosis applies to respiratory disorders such as bronchial asthma, hyperventilation syndromes, sighing, and hiccoughs in which emotional factors play a causative role.

305.3 Psychophysiologic cardiovascular disorder

This diagnosis applies to cardiovascular disorders such as paroxysmal tachycardia, hypertension, vascular spasms, and migraine in which emotional factors play a causative role.

305.4 Psychophysiologic hemic and lymphatic disorder

Here may be included any disturbances in the hemic and lymphatic system in which emotional factors are found to play a causative role. ICD-8 has included this category so that all organ systems will be covered.

305.5 Psychophysiologic gastro-intestinal disorder

This diagnosis applies to specific types of gastrointestinal disorders such as peptic ulcer, chronic gastritis, ulcerative or mucous colitis, constipation, hyperacidity, pylorospasm, "heartburn," and "irritable colon" in which emotional factors play a causative role.

305.6 Psychophysiologic genito-urinary disorder

This diagnosis applies to genito-urinary disorders such as disturbances in menstruation and micturition, dyspareunia, and impotence in which emotional factors play a causative role.

305.7 Psychophysiologic endocrine disorder

This diagnosis applies to endocrine disorders in which emotional factors play a causative role. The disturbance should be specified.

305.8 Psychophysiologic disorder of organ of special sense

This diagnosis applies to any disturbance in the organs of special sense in which emotional factors play a causative role. Conversion reactions are excluded.

305.9 Psychophysiologic disorder of other type

VII. SPECIAL SYMPTOMS (306)

306 Special symptoms not elsewhere classified

This category is for the occasional patient whose psychopathology is

manifested by a single specific symptom. An example might be anorexia nervosa under *Feeding disturbance* as listed below. It does not apply, however, if the symptom is the result of an organic illness or defect or other mental disorder. For example, anorexia nervosa due to schizophrenia would not be included here.

306.0 Speech disturbance

306.1 Specific learning disturbance

306.2 Tic

306.3 Other psychomotor disorder

306.4 Disorder of sleep

306.5 Feeding disturbance

306.6 Enuresis

306.7 Encopresis

306.8 Cephalgia

306.9 Other special symptom

VIII. TRANSIENT SITUATIONAL DISTURBANCES (307)

307* Transient situational disturbances¹

This major category is reserved for more or less transient disorders of any severity (including those of psychotic proportions) that occur in individuals without any apparent underlying mental disorders and that represent an acute reaction to overwhelming environmental stress. A diagnosis in this category should specify the cause and manifestations of the disturbance so far as possible. If the patient has good adaptive capacity his symptoms usually recede as the stress diminishes. If, however, the symptoms persist after the stress is removed, the diagnosis of another mental disorder is indicated. Disorders in this category are classified according to the patient's developmental stage as follows:

307.0* Adjustment reaction of infancy*

Example: A grief reaction associated with separation from patient's mother, manifested by crying spells, loss of appetite and severe social withdrawal.

307.1* Adjustment reaction of childhood*

Example: Jealousy associated with birth of patient's younger brother and manifested by nocturnal enuresis, attention-getting behavior, and fear of being abandoned.

307.2* Adjustment reaction of adolescence*

Example: Irritability and depression associated with school failure and manifested by temper outbursts, brooding and discouragement.

307.3* Adjustment reaction of adult life*

Example: Resentment with depressive tone associated with an unwanted pregnancy and manifested by hostile complaints and suicidal gestures.

Example: Fear associated with military combat and manifested by trembling, running and hiding.

Example: A Ganser syndrome associated with death sentence and manifested by incorrect but approximate answers to questions.

307.4* Adjustment reaction of late life*

Example: Feelings of rejection associated with forced retirement and manifested by social withdrawal.

IX. BEHAVIOR DISORDERS OF CHILDHOOD AND ADOLESCENCE (308)

308* Behavior disorders of childhood and adolescence ((Behavior disorders of childhood))²

This major category is reserved for disorders occurring in childhood and adolescence that are more stable, internalized, and resistant to

¹ The terms included under DSM-II Category 307*, "Transient situational disturbances," differ from those in Category 307 of the ICD. DSM-II Category 307*, "Transient situational disturbances," contains adjustment reactions of infancy (307.0*), childhood (307.1*), adolescence (307.2*), adult life (307.3*), and late life (307.4*). ICD Category 307, "Transient situational disturbances," includes only the adjustment reactions of adolescence, adult life and late life. ICD 308, "Behavioral disorders of children," contains the reactions of infancy and childhood. These differences must be taken into account in preparing statistical tabulations to conform to ICD categories.

² The terms included under DSM-II Category 308*, "Behavioral disorders of childhood and adolescence," differ from those in Category 308 of the ICD. DSM-II Category 308* includes "Behavioral disorders of childhood and adolescence," whereas ICD Category 308 includes only "Behavioral disorders of childhood." DSM-II Category 308* does not include "Adjustment reactions of infancy and childhood," whereas ICD Category 308 does. In the DSM-II classification, "Adjustment reactions of infancy and childhood" are allocated to 307* (Transitional situational disturbances). These differences should be taken into account in preparing statistical tabulations to conform to the ICD categories.

treatment than *Transient situational disturbances* (q.v.) but less so than *Psychoses*, *Neuroses*, and *Personality disorders* (q.v.). This intermediate stability is attributed to the greater fluidity of all behavior at this age. Characteristic manifestations include such symptoms as overactivity, inattentiveness, shyness, feeling of rejection, over-aggressiveness, timidity, and delinquency.

308.0* Hyperkinetic reaction of childhood (or adolescence)*

This disorder is characterized by overactivity, restlessness, distractibility, and short attention span, especially in young children; the behavior usually diminishes in adolescence. If this behavior is caused by organic brain damage, it should be diagnosed under the appropriate non-psychotic *organic brain syndrome* (q.v.).

308.1* Withdrawing reaction of childhood (or adolescence)*

This disorder is characterized by seclusiveness, detachment, sensitivity, shyness, timidity, and general inability to form close interpersonal relationships. This diagnosis should be reserved for those who cannot be classified as having *Schizophrenia* (q.v.) and whose tendencies toward withdrawal have not yet stabilized enough to justify the diagnosis of *Schizoid personality* (q.v.).

308.2* Overanxious reaction of childhood (or adolescence)*

This disorder is characterized by chronic anxiety, excessive and unrealistic fears, sleeplessness, nightmares, and exaggerated autonomic responses. The patient tends to be immature, self-conscious, grossly lacking in self-confidence, conforming, inhibited, dutiful, approval-seeking, and apprehensive in new situations and unfamiliar surroundings. It is to be distinguished from *Neuroses* (q.v.).

308.3* Runaway reaction of childhood (or adolescence)*

Individuals with this disorder characteristically escape from threatening situations by running away from home for a day or more without permission. Typically they are immature and timid, and feel rejected at home, inadequate, and friendless. They often steal furtively.

308.4* Unsocialized aggressive reaction of childhood (or adolescence)*

This disorder is characterized by overt or covert hostile disobedience, quarrelosomeness, physical and verbal aggressiveness, vengefulness, and destructiveness. Temper tantrums, solitary stealing, lying, and

hostile teasing of other children are common. These patients usually have no consistent parental acceptance and discipline. This diagnosis should be distinguished from *Antisocial personality* (q.v.), *Runaway reaction of childhood (or adolescence)* (q.v.), and *Group delinquent reaction of childhood (or adolescence)* (q.v.).

308.5* Group delinquent reaction of childhood (or adolescence)*

Individuals with this disorder have acquired the values, behavior, and skills of a delinquent peer group or gang to whom they are loyal and with whom they characteristically steal, skip school, and stay out late at night. The condition is more common in boys than girls. When group delinquency occurs with girls it usually involves sexual delinquency, although shoplifting is also common.

308.9* Other reaction of childhood (or adolescence)*

Here are to be classified children and adolescents having disorders not described in this group but which are nevertheless more serious than transient situational disturbances and less serious than psychoses, neuroses, and personality disorders. The particular disorder should be specified.

X. CONDITIONS WITHOUT MANIFEST PSYCHIATRIC DISORDER AND NON-SPECIFIC CONDITIONS (316*—318*)

316* Social maladjustments without manifest psychiatric disorder

This category is for recording the conditions of individuals who are psychiatrically normal but who nevertheless have severe enough problems to warrant examination by a psychiatrist. These conditions may either become or precipitate a diagnosable mental disorder.

316.0* Marital maladjustment*

This category is for individuals who are psychiatrically normal but who have significant conflicts or maladjustments in marriage.

316.1* Social maladjustment*

This category is for individuals thrown into an unfamiliar culture (culture shock) or into a conflict arising from divided loyalties to two cultures.

316.2* Occupational maladjustment*

This category is for psychiatrically normal individuals who are grossly maladjusted in their work.

316.3* Dyssocial behavior*

This category is for individuals who are not classifiable as anti-social personalities, but who are predatory and follow more or less criminal pursuits, such as racketeers, dishonest gamblers, prostitutes, and dope peddlers. (DSM-I classified this condition as "Sociopathic personality disorder, dyssocial type.")

316.9* Other social maladjustment***317* Non-specific conditions***

This category is for conditions that cannot be classified under any of the previous categories, even after all facts bearing on the case have been investigated. This category is not for "Diagnosis deferred" (q.v.).

318* No mental disorder*

This term is used when, following psychiatric examination, none of the previous disorders is found. It is not to be used for patients whose disorders are in remission.

**XI. NON-DIAGNOSTIC TERMS FOR ADMINISTRATIVE USE
(319*)****319* Non-diagnostic terms for administrative use*****319.0* Diagnosis deferred*****319.1* Boarder*****319.2* Experiment only*****319.9* Other***

I Socarides, S. "Homosexuality and Medicine", 1968

Homosexuality and Medicine

Charles W. Socarides, MD

Homosexuality is a medical disorder which has reached epidemiologic proportions; its frequency of incidence surpasses that of the recognized major illnesses in the nation. Homosexuality may be classified in two categories: obligatory (true) homosexuality and episodic homosexual behavior. It is essential to differentiate carefully between these types in order to determine the significance of the disorder, its treatment, and its prognosis. This condition is not innate or inborn but is an acquired, learned maladaptation arising from faulty gender identity in the earliest stages of life. Only massive childhood fears can damage and disrupt the standard male-female pattern and ultimately lead to the later development of obligatory homosexuality.

The issue of homosexuality is dominated by emotional thinking which can not help but generate confusion, fear, and rage. These charged attitudes, at first individual, have become widespread throughout the community¹ and compound the difficulties in dealing with this major health problem.

Homosexuality, overt but also covert, upsets us. Polls have shown that the majority of the public still favors legal punishment for homosexual acts even if performed in private; homosexuality is considered more harmful to society than adultery and even than abortion with its actual threat to life.² In our culture the very thought of effeminacy in the male is tremendously disturbing.

The historical evidence of the practice of homosexuality from earliest recorded times has led to grave

misconceptions. One can often discern in the homosexual a feeling that if this condition has been extant over so many centuries what hope is there for him? Surely his fate is sealed. This defeatism infiltrates the public and unfortunately influences our laws and our scientific objectivity. Rather than assume that homosexuality, like poverty, is an inevitable component of the human condition it better behoves us to acknowledge that homosexuality is a form of mental illness which has not yet been adequately studied by those who are best trained to investigate and treat it. Reports on therapeutic outcome, in this country and elsewhere, have changed the clinical prognosis from an essentially pessimistic one to one in which at least one third of lifelong, exclusively homosexual patients can become exclusively heterosexual.^{3,5}

Attempts to obfuscate the fact that homosexuality is a medical problem have not been met head on by those most qualified to clarify the situation.

Only in the consultation room does the homosexual reveal himself and his world. No other data, statistics, or statements can be accepted as setting forth the true nature of homosexuality. All other sources may be heavily weighted by face-saving devices or rationalizations or, if they issue from lay bodies, lack the scientific and medical background to support their views. The best that can be said for the well-intentioned but unqualified observer is that he is misguided because he does not have and can not apply those techniques which would make it possible to discern the deep underlying clinical disorder or to evaluate the emotional patterns and interpersonal events in the life of a homosexual.

There are many doctors who, by ignoring and disregarding homosexuality, hope to render it invisible and nonexistent. To acknowledge it would be tantamount, they fear, to permitting it. In my opinion, part of medicine's neglect has been due not only to uncertainty concerning etiology, treatment, and prognosis but also that acceptance of homosexuality as a medical disorder alongside all other medical disorders has been unconsciously and consciously perceived by us as tantamount to being in favor of it, encouraging it, and perhaps endorsing it, thereby putting us in direct conflict with established standards of human conduct. This I have discovered is the current status of the problem of homosexuality on the part of many colleagues in the medical profession in respect to a dread dysfunction, malignant in character, which has risen to epidemiologic proportions. Exact statistics on homosexual practices are understandably difficult to compile;

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a conservative estimate is that between 2,500,000 and 4,000,000 adult American males suffer from this condition. By way of comparison, a Public Health Service report estimates the four major illnesses in this country (1963 to 1965) as: heart disease, 3,619,000; arthritis and rheumatism, 3,481,000; impairment (except paralysis) of the back and spine, 1,769,000; mental and nervous disease, 1,767,000.

The female homosexual finds herself in a paradoxical situation. Although suffering in essence with the same disorder as her male counterpart, little concern has been manifest by either the medical or legal professions about her condition. She too, however, needs special medical, legal, and sociological consideration.

Many writers prefer to use the term "lesbianism" to describe the clinical condition of female homosexuality. This reflects an attempt to romanticize and minimize it. Homosexual relations between women are often considered superficial and some sources do not regard female homosexual contacts as sexual at all despite intense orgasmic experiences between the women involved. Nevertheless, their plight is as grave if not more so than that of the male homosexuals. For example, the loss of a homosexual partner can lead the bereft female homosexual to severe depressions and suicide with greater frequency than in the male.

I have dealt intensively with the illnesses diagnosed as perversions,⁷⁻¹⁵ especially with homosexuality, for the past 15 years—both in clinical practice and in teaching. Our first step is to ask ourselves "What is a homosexual?" In essence, a homosexual is a person who consistently and from inner necessity engages in homosexual acts. This pattern arises from faulty sexual identity, a product of the earliest years of life. Typically, we find a pathological family constellation in which there is a domineering, crushing mother who will not allow the developing child to

achieve autonomy from her and an absent, weak, or rejecting father.

There are two categories of homosexuality: obligatory (true) homosexuality and episodic homosexual behavior. The latter is characterized by isolated homosexual acts without the stereotypy, the compulsion, of the former and is due to the conscious desire for variational experience, the achievement of "special gains," such as power and prestige, or the quest for unusual sensations. Such transient behavior may occur in specific situations as well; it may be rampant in prisons, remote settlements, or during other types of confinement where persons of the opposite sex are not available. Except for those already predisposed to homosexuality through early psychological trauma, the individual reverts to heterosexual behavior when members of the opposite sex are again available. Current research points to the fact that a person does not become a true obligatory homosexual if the initial design is not laid out by 3 years of age, that is, during the preoedipal period of development.

There is a high incidence of paranoia or paranoid-like symptomatology in overt homosexuals. This is related to the medical fact that overt obligatory homosexuality is either a fixation or regression to the earliest stages of ego development. As a result, archaic and primitive mental mechanisms belonging to the earliest stages of life characterize the homosexual's behavior. Also, homosexuality, obligatory or not, can be seen in the schizophrenic in his frantic attempt to establish some vestige of object relations as an expression of the fragmented and disorganized psychic apparatus with which he has to struggle.

It is misleading to classify homosexuality as a sociopathic disorder. Not all homosexuals or perhaps even a majority display the "absence of conscience" mechanism so characteristic of the so-called psychopath.

The compulsion of the sexual expression, its insistence for expression despite all dangers to the contrary and all risks, gives the appearance that one does not care about established social institutions or about oneself. The annals of political history include personalities at the very highest levels, men with an exceptionally well-developed sense of public and social good, who have experienced the tragic consequences of their homosexual illness.

This communication is concerned only with obligatory homosexuality which is reparative in nature and occurs as a result of intolerable anxiety. The underlying pain and anguish, if added to the damage done to the family of the homosexual, produces dire consequences beyond the imagination of anyone not in a position to directly observe the intensity of the suffering. I ask you when you take a sexual history to respond with interest and compassion to efforts on the patient's part to communicate his shame and despair in the guilty revelation of behavior so demeaning and injurious to pride.

At this point we must make certain definitive statements gained from our clinical research and accumulated knowledge of the human psyche in health and in illness. The claim that homosexuality is simply a variant of normal sexual behavior and exists alongside heterosexuality as an equivalent expression of adult sexual maturation is utterly false:

1. True obligatory homosexuality is a form of psychiatric or emotional illness. After detailed exploration, the Committee on Public Health of the New York Academy of Medicine reported its findings that homosexuality is a mental disorder whose only effective treatment is psychotherapy. The committee, totaling 30 members, consisted of several deans of medical schools, prominent representatives of the medical specialties including six psychiatrists, the then commissioner of police of the city of New York as well as members of

the judgment of significance
2. He not innately learned sexual object chromosomal birth d

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the judiciary. This 1964 report recognized homosexuality as an illness of social proportions, national significance, and serious portent.¹⁶

2. Homosexual object choice is not innate or instinctual nor is heterosexual object choice since both are learned behavior. The choice of sexual object is not predetermined by chromosomal tagging. Heterosexual object choice is determined from birth due to cultural and environmental indoctrination. It is supported by universal human concepts of mating and the family unit with the complementariness and contrast between the two sexes. It is further determined by 2½ billion years of human evolution and is a product of sexual differentiation, at first solely based on reproduction but later widened to include sexual gratification, e.g., from one-celled nonsexual fission the development of two-celled sexual reproduction to separate entire organ differentiation and finally to the development of separate individuals reciprocally adapted to each other anatomically, endocrinologically, psychologically, and in many other ways.

Only massive childhood fears can damage and disrupt the standard male-female pattern. Such early unconscious fears are responsible for the later development of homosexuality.

3. Homosexual behavior which is nonobligatory (episodic) is practiced by individuals through choice for a variety of motivations and should not be confused with true homosexuality. These motivations are as complex as any other motivations which may influence human behavior: personal gain, power, search for a variational experience (an extra sexual "thrill"), preferred status and position, etc. This form is not caused by unconscious fears and ensuing guilt but is due to conscious, deliberate choice. One must carefully differentiate between the obligatory and the nonobligatory as the latter type would like to mask

behind true homosexuality in order to save pride and justify its occurrence.

4. Since the obligatory homosexual is suffering from an illness it is obvious that he should not be penalized for the consequent activities carried out in private, not offensive to public decency, and in partnership with a consenting adult. He should not be made to suffer special penalties because of the manifestation of his illness so long as it is not accompanied by antisocial or criminal behavior.

The view that obligatory homosexuality per se is punishable by law and the view that it is, in fact, a medical problem are antithetical and this matter requires revision. However, any change in the legal code should be accompanied by a clear-cut statement as to the nature of obligatory homosexuality, its diagnosis as a form of mental illness, and a universal declaration of support for its treatment by qualified medical practitioners.

The Wolfenden report¹⁷ succeeded in having legislation passed in England redressing the inequities faced by the homosexual but it regrettably failed both the homosexual and the public by not making it explicit that homosexuality is an emotional illness and, therefore, lies within the province of medicine. One might have recommended this addition to the Wolfenden report:

Homosexuality is a form of emotional disorder which may cause such grave disruption to the equilibrium of the individual that all meaningful relationships in life are damaged from the outset and peculiarly susceptible to breakdown and destruction. Further, attitudes toward the opposite sex are so filled with distrust, abhorrence, hate, and revulsion as to render them impossible of any relationship except on the most superficial and brittle basis, if then. These characteristics are an outcome of childhood fears which cripple the individual in his total adaptation.

All male homosexuals suffer, paradoxically, from the yearning to be a

man, not a woman as commonly assumed. They hope to achieve a "shot" of masculinity in the homosexual act. Ostensibly they may behave in an affectionate and kindly way toward the sexual partner but this is a veneer, a rationalization, to cover the life-saving, ego-saving operation of obligatory homosexuality. The homosexual must carry out his act; unless he does he will suffer intolerable anxiety and experience massive threat to his psychic organization and functioning. Like the addict, he must have his "fix."

In the light of clinical research the homosexual symptom can be seen as an intricately designed defense whose purpose is to maintain the equilibrium of a severely disturbed individual. Tampering with his psyche by unqualified persons is to be condemned as he may become seriously disorganized if a premature attempt is made to interrupt his homosexual activities. Conversely, an individual, however impelled toward them, who has refrained from homosexual activities may be tragically pushed into them by unwise guidance.

5. There is no obligatory homosexual who can be considered to be healthy. The very existence of this condition precludes it. Despite the appearance at any given time of adequate life performance, there is always extreme conflict present which threatens to disrupt this fragile adjustment.

6. As obligatory homosexuality can not be considered to be a legal issue, so it can not be viewed as a problem of morality. As with psychosis and neurosis, it can not be regarded as a consequence of immorality or a manifestation of evil spirits occupying the body for which special tortures were devised and special legal punishment was exacted.

These misconceptions must be corrected. It would, however, be the utmost folly to remedy them and then dismiss or overlook the deep

psychological disturbance which is the basis of the homosexual condition. Some well-intentioned groups would have us not only do away with legal and moral issues but have us announce that homosexuals are not ill at all. They point to disturbances among heterosexuals and attempt to make a comparison. While the existence of psychosis and neurosis are, of course, found in heterosexuality, the heterosexual orientation is not, of itself, an indication of pathological condition while homosexuality always is. The inability to function heterosexually and the extreme hostility toward the opposite sex originating in the fear of one's impulses toward the mother has led to a wholesale flight from the female forever and to a compromise adaptation of choosing a male for sexual gratification and to save the self from intolerable anxiety.

We practice today in the atmosphere of a sweeping sexual revolution. Together with the mainstream heterosexual revolt has come the announcement that a homosexual revolution is also in progress and that homosexuality should be granted total acceptance as a valid form of sexual functioning, different from but equal to heterosexuality. Such acceptance of homosexuality, as being a simple variation of normality, is naïve, not to say grounded in ignorance. Equally misleading is the idea that it is merely an aspect of normal development, a transient stage of adolescence, without meaningful sequallae. That we, as physicians, could be persuaded to overlook such tendencies among our young people is a harmful fantasy as shown by the fact that colleges can be pressured to charter homosexual groups on campus with all the privileges of other scholastic and social organizations, thereby lending tacit approval.

The implications of such trends are profound. For the adolescent, they make him uncertain and confused. Even for an adult, struggling

to strengthen what may be a frail heterosexual organization, the vicissitudes of maintaining sexual adequacy may drive him into a self-despising homosexual pattern. He does not know how else to resolve the deep conflicts which have persisted and tortured him since early childhood. Homosexuality is a foredoomed attempt to find a panacea for the tormenting fear which originated in early childhood and like any unrealistic solution remains unsatisfactory at all times and disastrous much of the time.

It is vitally important to realize this fundamental point: the diagnosis of homosexuality can not be self-made, imposed by jurists, articulated by clergy, or speculated about by social scientists. True obligatory homosexuality is a complex condition and has to be differentiated from episodic homosexual behavior entered into for a variety of conscious motivations as stated.

If the homosexual is to be granted his human right as a medical patient, issues which becloud his status should be clarified. Above all, the homosexual must be recognized as an individual who presents a medical problem.

The whole issue of homosexuality must be transformed into one more scientific challenge to medicine which has time and again been able to alleviate the plaguing illnesses of man. With this respected leadership on the part of the physician, we will see a surge of support for the study and treatment of the disorder by all the techniques and knowledge available through the great resources and medical talent of the United States.

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II Instructor's Manual:

PETER BRADLEY

DEFINING THE MIND

The struggle for legitimacy of psychology and psychiatry in the
1970's

Instructor's Manual

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1 Introduction

Welcome to “Defining the Mind.” This game is set around the creation of the DSM-III in the 1970’s. Prior to this period, psychoanalysis dominated psychiatry and behaviorism dominated psychology, both to the point that changed seemed unthinkable.

This is not a game about the accumulation and use of power in the ordinary way. This is a game about academic credibility and evidence. In the ideal of academic life towards which we strive, these are one and the same. In reality, of course, they are not.

But there are moments—Kuhn used the political metaphor of a revolution—where known anomalies in the dominant paradigm become great to ignore, and shifts happen. In these moments, academic credibility takes on a new form. And like political revolutions, new movements in science gain credibility by appeal to external entities and ideologies. Indeed, most of the debates between factions regards the Philosophy of Science, not evidence *per se*.

The writing of the DSMIII marks one of these moments of revolution in Psychiatry. The DSM I’s “Revised Nomenclature” is 39 pages long G on page 438. The DSMII’s is 40 pages I on page 605. The equivalent section (2) of the DSMIII is 300 pages long. The DSMIII-R added another 250 pages or so and the DSMIV another 100. Since then, the DSM IV-TR and the DSM V have continued to grow. There is, simply put, a difference in *kind* between the taxonomy used in early DSMs and III. And while that taxonomy has grown since the III, it has not changed in nature.

We do not expect that undergraduate students to produce a diagnostic taxonomy in this game. Rather, we are expecting students to determine upon what basis such a diagnostic taxonomy should be based: observable symptoms or hypothetical causes. These are questions of Philosophy, not necessarily questions of Psychology or Psychiatry. Of course, we throw in Thomas Szasz and his sympathizers to drive home the importance of having a definition in the first place.

1.1 Game synopsis

The narrative of the game begins, but *does not end with*, the demedicalization of homosexuality. This game is not intended to be a political game wherein the players are centrally interested in the collection and use of power. Rather, this game is meant to be about evidence, and the interpretation of evidence. Bieber claims, for example, to have about 30% success rate in his ‘treatment’ of homosexuality. Is this an adequate ‘success’ rate given the struggles the other 70% of his patients report—as experience first-hand by Ron Gold? Or even compared against the societal stigma that is placed on homosexuals because of the ‘procedure’?

More importantly, this game is not centrally *about* homosexuality. That issue is completed largely in the first session. This game is about whether or not science can legitimately posit underlying mechanisms to explain behavior or is restricted to merely cataloging and describing behavior and behavior correlations. Spitzer’s proposed revisions to the DSM largely banish psychoanalytic taxonomies (and their assumed underlying psychodynamic mechanisms) from the official language of psychiatry. At the same time, Chomsky and Miller are reintroducing hypothetical mechanisms to Psychology, which has resisted them for half a century of behaviorism.

The three main factions have distinctly different views on this question:

- The psychoanalysts believe that one cannot categorize human behavior without understanding the underlying mechanisms.
- The behaviorists believe that science requires that they limit themselves only to describing behavior.
- The cognitivists offer a third way, a kind of hybrid between the two, where mechanisms are required for adequate explanation of behavior, but they are ontologically limited to those that can be realized in the physical substrate of the human mind.

After the initial storm over homosexuality, the central question of the game is scientific legitimacy of psychoanalysis. This is a complicated issue, and will make allies of those initially divided over homosexuality—Marmor and Speigel will need to work with Socardes /Bieber to protect psychoanalysis from Spitzer and his allies.

Spitzer himself is a bit of a wild card. In reality, Spitzer was never enthralled with psychoanalysis. Once he understood the negative effects that medicalization was having on homosexuals, he consolidated control and forced the change to the DSM through sheer force. To this

day, advocates for NARTH and ‘reparative therapy’ complain (probably justly) about his willingness to bend the rules. But this doesn’t mean that he was wrong—the evidence produced by Socardes and Bieber is terrible, while Hooker’s evidence is quite strong. It is up to you and the student to decide if your Spitzer will rely on the power of good ideas and evidence or ram the changes through using parliamentary tricks.

There are a number of other issues that will arise, including whether there can be, or should be, psychological study of women and minority communities. And almost as importantly, what the responsibilities to the public good a scientist has.

The game culminates in the vote defining ‘mental illness.’ There should be at least 3 candidates proposed: by Spitzer, Szasz and the Psychoanalysts. In reality, no one definition ever passed, and the Psychiatric and Psychological community still operate without a formal definition. In the world of your game, it’s pretty much up in the air if anyone will succeed in getting their definition passed.

Concurrent conversations

There are three main ‘tracks’ or ‘conversations’ happening concurrently in this game.

- The first—the dominate narrative—starts with the demedicalization of homosexuality, follows the Spitzer proposal to rewrite the DSM-III and ends with the definition of mental illness.
- The second regards research proposals, labs and ethics. Proposals are reviewed weekly by the Research Committee, and if approved, the experiment performed by the members of the class in the next class session.
- The third regards the policies of the APA, specifically the role in the wider culture of the APA and Psychology and Psychiatry broadly construed. The elections to the board as well as Presidential elections are included in this conversation, even as they impact the other two. This thread climaxes in the debate on the Leona Tyler principle and Chomsky and Clarke’s arguments against.

These are three major topics /events that every conference should address. The first, demedicalization, is really a sample question to set up the major issues of the game.

1. **Demedicalization of Homosexuality (week 1)** The demedicalization of homosexuality is almost totally assured. The only characters who argue against it are Bieber and Socardes. Their reliance on

psychoanalytic techniques will not sway Marmor or Hopcke, who are committed to demedicalization. This may be frustrating to your students. It is wise to remind them that the main question of the game—the legitimacy of psychoanalysis as a scientific enterprise—is very much in play, and if they strategize correctly, they can win the game even though they lost the first battle.

The NY Times obituary of Socarides quotes Gilbert Herdt of National Sexuality Resource Center in San Francisco as saying “Socarides outlived his time.” That is roughly correct. Many psychiatrists in 1971 may not have noticed that the medicalization of homosexuality was a problem for the homosexual community, but once it was pointed out, the opinion swung dramatically: 58% of the population approved of the demedicalization in 1973. And today there is great embarrassment about that era.

As such, the main debate here is about the procedure by which homosexuality will be removed. Green and Marmor will be tempted to just ram it through the board of directors without consulting the population. That should be avoided. I've set up the game so that Marmor's original proposal should be remanded to the nomenclature committee, which will report in 1972, requiring a final vote of the membership in 1973. While the result is not in doubt, without that process, Socarides' rhetoric that the decision was political, not scientific, will be bolstered.

2. Research (throughout)

The ‘normal business’ of the APA should continue throughout. Research proposals should be brought forward, the best one approved and the study conducted (that is, as much as is practical). There are two types of proposals that can be brought to the Research committee: real, historical experiments that I have ‘anonymized’ for use in the game, and in class-room experiments from the APA's (*Psychological Activities Handbook for the Teaching of Psychology*). I've selected experiments that reflect the major issues in the game. They are available in Section 5.2 on page 62

1. **Association Business /DSM-III (week 2–4)** The second section of the game addresses the central question of the legitimacy of psychoanalysis. It does so, once again, tangentially by asking students to debate the evidence that should be used to form the taxonomy of mental illness as contained in the DSM-III. Students shouldn't be debating whether this or that criteria is include, but rather, whether the DSM-III ought to be structured around the psychodynamic hypothesis or the study of observable symptoms. You could say the debate is whether mental illness is classified by its causes or its effects.

At the same time, the Spitzer taskforce should propose a covering definition of 'mental illness' that will directly challenge the views of Szasz and Albee. It should fail (it did, in reality).

2. The social responsibilities of social scientists. (Week 3–5)

Leona Tyler is prompted to propose the 'Leona Tyler Principle' to the board in week 3. That should spark Ken Clark and Noam Chomsky to object, and propose a symposium in the following year. Of course, these can come at any time, but they are vital to the end game.

3. End Game: Definition of 'mental illness' and Fission of the APA (week 5). Members of the factions have the option to form splinter associations. In reality:

Behaviorists found the "Society for the Experimental Analysis of Behavior" (actual founding 1957), and founded two journals: *Journal of the Experimental Analysis of Behavior* and *Journal of Applied Behavioral Analysis*.

Psychoanalysts form the American Psychoanalytic Association (actual founding in 1911, but grew rapidly in this era) and the journal *Journal of the American Psychoanalytic Association (JAPA)*, and

Cognitivists form the Cognitive Science Society (1979) and its associated journals.

No students are given direct instruction on whether the fission requires withdrawal from the APA. Some, esp. those playing Beiber and Socarides, may feel stronger about the fission than the cognitivists Miller and Chomsky. This is historically appropriate—by the mid-1980s, cognitivism generally dominated the APA. And contemporary behaviorism has adapted to resemble cognitivism in many ways, by include talk of 'motivations' and of the 'function of behavior' in their explanations.

2 Model Schedules

2.1 Standard Schedule

I've always taught 'Defining the Mind' as a Tuesday-Thursday 1.5 hour per class section. That gave me the structure to require proposals be distributed on Tuesday for discussion on Thursday.

The schedule I have used is represented in table 2.1 on page 18.
Replicated here from Section 3.6 on page 107.

Year—Location	Ses-sion	Activities
1971—Washington DC		
	A	Presidential Address George Miller Symposium: "Psychiatry: Friend or Foe to Homosexuals: A Dialogue," (Dr H. Anonymous, E. Hooker) T. Szasz "The Myth of Mental Illness" Presentation of 'mental rotation' task: gamemaster
	B	Marmor "Limitations of Free Association" Proposal from J Marmor Proposal from C. Socarides. Petition from G. Albee. Research report from G. Miller on 'mental rotation' task
1972—Dallas		
	A	Presidential Address Albert Bandura Symposium on Medical Model (G. Albee, T. Szasz) Report from taskforces
	B	R. Spitzer 'The Fiegner Criteria' P. Gebhard on the Kinsey reports H. Harlow 'Lust, latency and love' Research Report
1973—Honolulu		
	A	Presidential Address Paper(s) Reports from taskforces

	B	Symposium Proposal to create "Spitzer Taskforce" [other proposals] Research Report
1974—Philadelphia		
	A	Presidential Address Symposium Paper(s)
	B	Open hearings on proposed definition of 'mental illness' [other proposals] Research Report
1975—Chicago		
	A	Presidential Address Open vote of the membership on definition of mental illness. Paper(s)
	B	Symposium: [other proposals] Research Report

Table 2.1: Outline of game sessions

2.2 *Expanded Schedule*

2.3 *Compressed Schedule*

2.4 *Long Class meetings*

3 Roles and Factions

3.1 List of roles and factions

Factions in this game are relative ‘loose.’ The basic theoretical frameworks in place have factional alignment, but there are plenty of independents who ‘lean’ towards one or more factions.

More importantly, there is a large set of topics upon which the factions are neutral. Some factional members, such as Marmor and Bieber will find themselves as opponents on major issues.

Factions

Psychoanalysts	Cognitivists	Behaviorists	Independents
I.Bieber / C. Socarides, MD	G. Miller, PhD N. Chomsky, PhD	A. Bandura, PhD H. Harlow, PhD E. Hooker, MD	T. Szasz, MD G. Albee, PhD J. Fryer, MD K. Clark, PhD A. Anastasi, PhD L. Tyler, PhD R. Spitzer, MD P. Gebhard, PhD (Anthro) F Kameny / B Gittings (Activists)* D. Fordney-Settlage, MD*
J.Marmor, MD	D. Marr, ABD		J. Piaget, PhD* R. Gold (Journalist)* S. Milgram, PhD* P. Zimbardo, PhD*
J. Spiegel, MD			
H. Lief, MD			
R. Green, MD			
R. Hopcke, MD			

Table 3.1: Initial Factions

Secret societies

The ‘secret societies’ ought to meet outside of class, to maintain their anonymity. They have no objectives other than their own, but they should orchestrate their actions so they help eachother out where necessary.

For example, Ron Gold is charged with ‘helping’ Spitzer draft the proposal to demedicalize homosexuality. I encourage the whole GayPA to have a version drafted *prior* to needing it in 1973.

GayPA (secret)	Young Turks (secret)	Sexual Research (informal)
J. Fryer, MD	R. Hopcke, MD*	H. Leif, MD*
E. Hooker, PhD	J. Spiegel, MD	R. Green, MD*
R. Gold*	J. Marmor, MD	D. Fordney-Settlage, MD*

Table 3.2: Secret and Informal Factions

Players

Between 16 and 26. Every character has specific assignments in writing, politics and research. Table 3.3 on page 21” summarizes these assignments.

Well-known publications by each character are included in the 4.2 on page 131 section of the gamebook.

Cast of 16

Row	Name	Area	Game Play
1	Robert Spitzer	Independent - Psychiatrist	Nomenclature committee chair in 1971, petitions for task force in 1973.
2	George Miller	Cognitivist	President in 1971, leader of cognitivists
3	Anthony Bandura	Behaviorist	Vice-president in 1971, behaviorist, but may join cognitivists
4	Harry Harlow	Behaviorist	Former Pres. of APA, leader of behaviorists, defend aversion therapy '74
5	Noam Chomsky	Cognitivist	Critic of behaviorism, founder of cognitivism, social activist. Symposium '74, debate with Piaget '75.
6	Leona Tyler	Independent - psychologist: counseling	(run for) Vice President in 1972, install the 'Leona Tyler Principle' as president '73

7	Anne Anastasi	Independent - psychologist: psychometrics	Run for VP in 1973, form the committee on women in Psych, and the committee on the Psych of Women. Neuralize the gender-biased language of the official APA calls for papers, '71
8	John P. Spiegel	Psychoanalyst	Run for VP in 1975, reliable partner of Spitzer, straight advocate for the GayPA. Propose ('71) and complete a report ('72) on homosexuality in psych and psychiat.
9	Evelyn Hooker	Behaviorist	Early studies of homosexuality (1953), the intellectual 'grandmother' of the current movement. Calming influence on the Gay-PA, and scientifically reliable source for their arguments.
10	George Albee	Independent - clinical psychologist	Medical model symposium '72, propose clinical psych health care system
11	Ken Clark	Independent - psychologist	Run for VP in 1974, expert testimony in Brown v. Board of education. Symposium '74
12	Judd Marmor	Psychoanalyst - Freudian	Propose removal of homosexuality '71, condemn Socarides JAMA paper '72
13	Thomas Szasz	Independent - psychiatrist	Critic of Psychoanalysis, and more broadly, the medicalization of psychiatry. Paper '71.
14	Irving Beiber / Charles Socarides	<i>can be split</i> Psychoanalyst – Freudian	Classical psychoanalyst, specializing in 'treatment' of homosexuality. God-father of 'reparative therapy' movement, as he is the mentor of contemporary Nicolosi (NARTH)
15	John Fryer	Independent - psychiatrist	Dr. H. Anonymous, propose rejection of aversion therapy '74
16	Paul Gebhard / H. Lief	<i>can be split</i> Independent - Anthropologist / Psychoanalyst - Jungian	Anthropologist representative on Spitzer Task Force / Jungian psychiatrist

Table 3.3: Character assignments for small class

Cast of 20

To add additional characters to the game:

- add Richard Green, MD, expert in transgenderism, student of John Money, who was also on the actual Spitzer task force (Money may be added to future versions of the game).

- then Ron Gold, Journalist, Activist. Convinces Spitzer that classification is doing more harm than good. Should also participate in a Symposium in 1973 giving a talk titled "Stop it, you're making me sick."
- Split Socarides/Bieber into two roles.
- Split Gebhard/Lief into two roles.

Cast of 27

And then add to this:

Row	Name	Faction / Views	Game Play
17	Robert Hopcke	Psychiatrist - Jungian	Jungian psychiatrist who updates theory to respect homosexuals. Historically inaccurate.
18	Jean Piaget	Psychologist – Developmental	Old man at this time. Debates Chomsky on innateness in 1975.
19	Dr. Fordney Settlage	Gynecologist	Member of the Spitzer Task Force, critic of androcentrism of psych. / psychiat.
20	Kameny / Gittings	'Homophile' Activists	Activists, co-founders of Mattachine Society of Washington DC.
21	Marr	Cognitive Scientist	Young researchers, articulates the 'levels' of explanation of cognitive science.
22	Milgram	Psychologist	Presents 'obedience' study, proposes 'small world' study.
23	Zimbardo	Psychologist	Proposes and defends the prison study

Table 3.4: Character assignments for large class

4 Game Setup

4.1 Overview

While there is a great deal to prepare for this game, my experience has taught me that the largest challenge the students will face is understanding that psychology and psychiatry were not always as they are now presented.

Most students come to the game believing that (a) psychology is a science and (b) psychiatry is a medical practice. Neither of those claims were settled in the public mind in 1970. In fact, most of the tension in this game revolves around the efforts to make psychiatry conform to ‘the medical model’ and psychology conform to the model of the natural sciences, thereby legitimizing them as worthwhile endeavors.

Psychology, on the other hand, had been suffering a crisis of legitimacy since its inception, which is why so many of their arguments are really metatheoretical arguments on the nature of science.¹ The behaviorists believe that introducing new methodologies, like the cognitivists propose, would further weaken their claims to be a scientific discipline.

¹ As noted in the introduction to the Instructor’s manual.

4.2 Rules and Procedures

Generally speaking, our students come to psychology and psychiatry through textbooks. And as a result, they are primed to believe, unreflectively, that contemporary narrative of these disciplines is settled fact. Furthermore, these students know nothing of the rise and regularization of health insurance companies and billing procedures following the inception of Medicare and Medicaid in 1965. For them, managed care, billable hours and check-box diagnoses have always been a part of their medical experience. It was not in 1970.

Since the 1970s, the psychiatrists and clinical psychologists have been under extraordinary pressure to create a system of diagnosis that will allow them to be compensated for their work under the system of managed care. Spitzer’s shift from etiological psychiatry to descriptive

psychiatry was a major step in that struggle.

It is difficult to get them to feel the pressure to legitimize psychiatry and psychology that drove much of the work in this era. You can help set the stage by hanging posters of advertising for pharmaceuticals and health insurance policies from the era. I've highlighted a few examples in Section ?? on page ?? of the Instructor's manual.

Many of the primary sources from this period—especially those from the members of the Spitzer task force—recall a time of great confusion. Spitzer is often characterized as acting almost singlehandedly, ignoring the hard work that others put into the classifications they proposed. If students feel confused and overwhelmed with all of the proposals being brought forward and the changes being made, that is partially intentional.

While the removal of homosexuality from the DSM was the correct decision, both morally and scientifically, that does not mean that the dissenters who point out the political bullying that went into passing the resolutions do not have a point. Everything was up for grabs, and legitimacy had to be established by extra-scientific methods. Spitzer (the real Spitzer) used the power of Robert's rules and the unlimited mandate of his task force.

We want the students to use things more sophisticated, like evidence and reason. But it is probably enough if they come away from the game with the sense that this period in the history of psychology and psychiatry was an all out scramble for legitimacy. Having a sense of confusion and chaos is a may be a part of that experience.

Committees

Getting the committees to function well can be challenging—in the game as in real life. In the ideal form, the committees would do their work outside of class, and report in class to the Board at the end of each conference. In reality, you may have to give time at the start of class to allow committees to meet and hash out their decisions.

Board of Directors

Responsibilities:

- Hold open meetings each conference where topics can be discussed and voted upon.

Powers:

- Issue public proclamations on behalf of the membership.
- Maintain official publications, such as the DSM

- Create ad-hoc committees and task forces, as necessary.
- Oversee and receive reports from the standing committees.
- Censure—can strip any member of credibility at any time. Generally reserved for use of ad hominem attacks or other bad behavior. Any number of credibility points can be stripped.
- Banning—rarely used, but available if necessary. Can place a life-time ban on any member at anytime.
- Confer 1–10 credibility points on retiring board members in recognition of their ‘distinguished service’

Potential Pitfalls

- The election process of VP’s has confused many students. It is not an uncommon practice in higher ed, but in my experience, the students find it very strange to elect VPs, not Presidents. It is probably worthwhile explaining it in person before game play begins.
- The game is setup to require a ‘built in’ 48-hour rule, where proposals to the board cannot be voted on in the same class period where they were presented. If that does not work for your class schedule, make sure everyone on the board and the membership understands it before the first open meeting.
- The boards I have worked with are tentative about using their powers, and are naturally conservative in taking actions. This, again, isn’t that surprising. For example, I’ve never had a board that was ready to act on Marmor’s proposal in 1971. They *always* want to come to consensus, and hence, turf it to a committee that comes back in 1973. If the board decides to act immediately, that’s fine—you can flip the 1973 symposium on its head and have Socarides and Bieber present a panel on why they believe the demedicalization was incorrect, and have Gold as a critic.

Research Committee

The research committee is charged with distributing grants to fund research as well as enforcing the APA’s Ethical Standards in the practice of Psychology and Psychiatry (see Appendix F). **The ‘research’ thread of the game depends entirely on the research committee functioning well.**

Responsibilities

- Solicit proposals in the form of a ‘call for research grants’ — an example is included in ?? on page ?? in the Game Book.

Powers

- Award grants to those proposals it deems excellent. Grants give the grantee the right to ‘use’ the class for their experiment for no more than 1 class session.
- Hearing and deciding on cases of research ethics, including recommending punishments to the Board for violators up to and including banning from the APA for life.
- Confer 1–5 credibility points on retiring board members in recognition of their ‘distinguished service’

Potential Pitfalls

- No one submits research proposals: we have included a number of sample proposals that are summaries of famous experiments from this error in section 5.1 on page 34. We've also included a handful of classroom ‘experiments’ from the APA Handbooks on teaching that are consistent with the game and time period in the appendix. Table 5.20 on page 63 lists labs and who might submit them as proposals for what purpose. Feel free to submit one or two of these to the research committee ‘anonymously’, each week, and if approved, assign one of the committee members to lead the study.
- Research committee fails to recognize ethical violations: This is especially important if Zimbardo submits his proposal. According to the 1968 guidelines, the proposal should be approved—as it was at Stanford. But there are obvious problems. If they approve it, the game master can intervene as “an outraged public” and demand a correction to the 1968 guidelines.

Nomenclature Committee

The Nomenclature committee is charged with maintaining the official terminology of psychology and psychiatry. This is embodied by the Diagnostic and Statistical Manual, which is the definitive source for definitions and classifications of mental disorders.

Responsibilities

- Maintain the official diagnostic and statistical manual of mental illness

Powers

- Define what kind of behaviors qualify as ‘mental illnesses’, thereby (because of the rise of health insurance and managed care) defining what kind of behaviors psychologists and psychiatrists can get paid to treat.

- Add a paper, panel or symposium topic to any conference agenda without review of the Program Committee
- Confer 1–5 credibility points on retiring board members in recognition of their ‘distinguished service’

Potential Pitfalls

- Spitzer will push the board to dissolve the Nomenclature committee and replace with a task force. If unsuccessful, all attempts to define ‘mental illness’ will be brought to the Nomenclature committee instead of the Board. That will require that the Nomenclature committee exercise its power to add a session at an upcoming conference. The Game master will be required to ensure there is adequate time for discussion and voting on these contentious issues. If Spitzer is successful in his proposal to dissolve the Nomenclature committee, that debate will occur during the Board meeting where the Task Force reports.

Program Committee

The Program Committee is charged with scheduling the conferences.

Responsibilities

- Solicit proposals from the membership
- Create the schedule for each conference
- Confer 1–3 credibility points on retiring board members in recognition of their ‘distinguished service’

Powers

- Decide who gets to speak at any conference, thereby determining who has the ability to gain credibility.

Potential Pitfalls

- Disengaged committee- in my experience, this committee has been the most difficult. It is hard for them to see that their power is probably the most significant in the game, as they control who is eligible to earn credibility, and hence, who is eligible to hold any of the positions in the APA. Students are often inclined, as they probably should be, to simply allow anyone who wants to talk to do so. You may wish to restrict the number of presentations per session, in order to help them understand the importance of the committee’s decision-making.

- Overly strict committee- I've never had this happen, but it is worth noting it as a possibility. Every student is required to present at least once in the course of the game. A Program committee could, in theory, 'black-list' a player, thereby making it impossible for that student to complete his or her goals. The game master needs to balance the principles of academic respect with the politics of the game. If this were to happen, the best solution would be for the blacklisted student to use the game mechanisms to fix his or her problem: run for the committee, or recruit an ally to do so, and allow his or her paper at the next conference. If that is impossible—say the black-listed student waited until the final week to recognize the problem—you'll need to use your own discretion.

Credibility Points

At the beginning of each conference (each 'week' on the standard schedule), distribute 1 credibility point to every student entering the game. Each student *must* give this point to the individual that he or she believes gave the best speech, research report or symposium presentation by the end of the week.

Running for office 'costs' credibility. Table 3.2 on page 89 in the Game Book shows the suggested costs of running for a seat. You are welcome to adjust this table for your own purposes, but if you do so, make sure to provide a copy to all the students. A blank version is included on page 46 of the Instructor's Manual.

Victory Objectives

The final vote—and consequently 'victory' in the game—is regarding the definition of 'mental illness.' Table 3.3 on page 91 of the Game Book lists the possible definitions and likely supporters.

Proposal	Those 'normally' affiliated
APA Task Force	Spitzer, Gebhard, Leif, Green
Psychoanalytic	Bieber / Socarides, Marmor, Speigel, Hopcke
Behaviorist	Bandura, Harlow, Hooker
Szasz	Szasz, maybe Albee

Table 4.1: Proposals for Mental Illness

APA Task Force (in Spitzer's role sheet)

A Medical disorder is a relatively distinct condition resulting from an organismic dysfunction which in its fully developed or extreme form is directly and intrinsically associated with distress, disability, or certain other types of disadvantage. The disadvantage may be of a physical,

perceptual, sexual, or interpersonal nature. Implicitly there is a call for action on the part of the person who has the condition, the medical or its allied professions, and society. A mental disorder is a medical disorder whose manifestations are primarily signs or symptoms of a psychological (behavioral) nature, or if physical, can be understood only using psychological concepts. (1978, p. 18)

Behaviorist

A person can be called ‘mentally ill’ when he or she exhibits emotional or behavioral functioning which is so impaired as to interfere substantially with his or her capacity to function in society.

Psychoanalytic

A person is mentally ill when he or she suffers from internal conflicts that may be subconscious or unconscious, manifesting behavior that is unwanted or disturbing to the individual or the society.

Szasz (and maybe) Albee

There is no ‘thing’ called ‘mental illness,’ only sets of behaviors that may be destructive to an individual and his or her society.

The final vote is tallied in credibility, not ‘votes’. To win, a definition *must* have more than 50% of the credibility available. If no definition surpasses this value, the APA can move forward without a definition, or it can change the rules for voting and vote again—for example, hold a run-off between the top-two vote getters.

The victory objectives can also be “modded” to a compromise. See Section 5.3 on page 77 of the Instructor’s Manual.

4.3 *Sample rubrics for grading*

Writing

Speaking

5 Game Management

Each week represents one annual conference. At each conference, there are a number of things that need to happen, although the order in which they happen is up to you. These are:

- President addresses the whole.
- Board meeting considers any proposals, votes.
- Committees meet, and report to the Board if necessary.
- Research papers presented.

For each week, you will need to prep and bring with you:

- Credibility points: print Table 5.2 on page 45 of the Instructor's Manual
- Proposals for the research committee (?? on page ??), if there are no proposals from students.
- The primary source of any 5.2 on page 57 of experiment "approved" in the week prior.

Specific items needed for each conference are listed on the individual conference pages: Page 34-41.

When and if the Research Committee approves labs that can actually be carried out, you will need to work with the student to ensure that required materials are available.

5.1 Narrative

Add stuff here[Peter Bradley, 7/27/18, 3:58 PM]

Conference Schedule for 1971

Presidential Address:

Dr. G. Miller "The Future of Psychology"

Distribution of proposals to be considered this year:

- J. Marmor: proposal to remove 'homosexuality' from the DSM-II (302.0)
- C. Socarides & I. Beiber: proposal to create taskforce on sexual deviation
- J. Spiegel and/or R. Green: proposal to create task force of historical study and literature review of homosexuality in psychology and psychiatry.

Symposia

1. "Psychiatry: Friend or Foe to Homosexuals: A Dialogue"
2. Dr. E. Hooker "The mental health of non-patient male homosexuals."
3. Dr. H. Anonymous, "I am a homosexual and a psychiatrist."
4. F. Kameny and/or B. Gittings "Gay, Proud and Healthy"

Research Papers

- Dr. T. Szasz "The Myth of Mental Illness"
- Dr. J Marmor "Limitations of Free Association"

Open Board Meeting

General business meeting agenda:

Committee Reports

- Dr. Tyler (Research)
- Dr. Spitzer (Nomenclature)
- Dr. Hooker (Conference)

Old Business

New Business

Discussion and vote on:

- Proposal from J. Marmor
- Proposal from C. Socarides /I. Beiber
- Proposal from G. Albee.

Nominations and elections for:

- Vice President 1972.
- Replacement for Milgram, member at large on the Board of Directors.

Table 5.1: Schedule for first conference

1971

Item	First session	Second session
Presidential Address	Miller "Psychology as a means of promoting human welfare" 28.1 on page 145	
Symposia	"Psychiatry: Friend or Foe to Homosexuals: A Dialogue," Fryer (?? on page ??), Hooker (24.1 on page 128), Kameny (?? on page ??) / Gittings (7.1 on page 41)	Worries about psychiatry, Szasz "The Myth of Mental Illness" 12.1 on page 71, Marmor "Limits of Free Association" (19.1 on page 105)
Proposals for the Board	Removal of homosexuality (Marmor '71) Create taskforce to study the history of treatment of homosexuality (proposed by Marmor, 1971)	Proposal from C. Socarides to create task force to sexual deviation. Proposal from J. Spiegel and R. Green to create task force of historical study and literature review of homosexuality in psychology and psychiatry. ?? on page ?? – Association Business.
Proposals for Research Committee	"Adjustment of Homosexual and Heterosexual Women" (proposed by Barbara Gittings, if in game, if not, gamemaster) A on page 88 "Emotional responses in a human child" (proposed by gamemaster) See ?? on page ??). The original paper is available on psych classics: http://psychclassics.yorku.ca/Watson/emotion.htm	
Research Reports	Miller, presenting Shepard, R. N., and Metzler, J. (1971). Mental rotation of three-dimensional objects. <i>Science</i> , 171, 701-703.	

Table 5.2: Major events of 1971

Notes:

Of course, the Little Albert experiment and Rosehan cannot be completed by actual students. If the research committee approves those experiments, the instructor should charge a student with presenting the original papers during the follow years' conference.

Students may recognize the "little albert" experiment, although I don't use the name 'little albert' in the proposal. They will also probably find the experiment unethical. Many people do. My version of the proposed experiment contains no plan for deconditioning Albert. See the 'Actual History' section below for a discussion of the history of this famous experiment.

Research committee proposals

Unless otherwise noted, these should be brought to the research committee for discussion **by the gamemaster**. If Milgram and Zimbardo are not in the game, those will need to be brought as well. The actual

papers should be made available to the students who will be presenting the data, if the activities are not actually performed.

- Shepard & Metzler's 'mental rotation of three-dimensional objects' task was approved "in 1970", so the task should be presented to the students, and Miller prepped on presenting the data (See 5.2 on page 67.) You will need to register for an account here: <http://opl.apa.org/Experiments/About/AboutMentalRotation.aspx> to use the APA's version.

Papers to be distributed for next week:

1971: Shepard, R. N., & Metzler, J. (1971). Mental rotation of three-dimensional objects. *Science*, 171, 701–703.

1972

Papers /Proposals other than the Presidential address are *likely* to be presented, but all depend on game play.

Item	First session	Second session
Presidential Address	Bandura, "Behavioral theory and models of man"	?? on page ??
Symposia	On the 'medical model' Szasz 12.1 on page 71 and Albee (1.1 on page 11)	
Proposals for the Board	Proposal to recognize the contributions of Evelyn Hooker <i>FromGebhard —see??onpage ?? — AssociationBusiness</i>	<p>Proposal from nomenclature to write a new DSM according to description of symptoms, not causes (Opposed: Lief)</p> <p>Proposal from Hopcke to limit medical care of mentally distressed individuals in hospitals to licensed medical doctors (i.e. psychiatrists)</p> <p>Counter proposal from Albee to limit the role of psychiatrists to the admission of drugs.</p> <p>Fordney-Settlage may be able to broker a compromise. (?? on page ?? — Association Business)</p>
Proposals for Research Committee	"On being sane in insane places" A on page 92 Fordney Settlage (1973). [citation DS Fordney Settlage, Baroff S, Cooper D 1973. Sexual experience of younger teenage girls seeking contraceptive assistance for the first time. Family Planning Perspectives, Vol. 5, No. 4 Autumn, 1973, p 223-226] (available on Jstor)	
Research Reports	Depending on outcome of 1971 proposals, one (or both) of Socarides on Sexual Deviation (17.1 on page 92) or Green (14.1 on page 78) and Spiegel (20.1 on page 108) on history of homosexuality – responses from Bieber (?? on page ??), Marmor	

Table 5.3: Possible events of 1972

Other papers to expect

- Paper by Spitzer on Feighner Criteria ?? on page ??, Anastasi in support (22.1 on page 116)
- Paper by Gebhard on the Kinsey report. 13.1 on page 74
- Paper by Harlow "Lust, latency and love"

Other possible proposals

- Hopcke – limit medical care of mentally distressed individuals in hospitals to licensed medical doctors

- Albee - limit the role of psychiatrists to the administration of drugs.

Research committee Issues

Papers to be distributed (if activities are approved)

1972: Siegelman, "Adjustment of Homosexual and Heterosexual Women" *The British Journal of Psychiatry* (1972) 120: 477–481.

1973

Papers /Proposals other than the Presidential address are *likely* to be presented, but all depend on game play.

Item	First session	Second session
Presidential Address	Depends on previous elections	
Symposia		
Proposals for the Board	Removal of homosexuality immediately (Spitzer '73) 11 on page 57 Proposal from Free mtg create a journal titled *Archives of Sexual Behavior* Spitzer task force, dissolution of nomenclature committee (Spitzer, 1973)	(likely / possible): Creation of the Society for the Psychology of Women (Anastasi, 1973) and Creation of the committee on Women in Psychology (Anastasi, 1973) D on page 195
Proposals for Research Committee	Prison study (See A on page 107, (proposed by Zimbardo, if in game, if not, gamemaster) “A re-analysis of the reliability of psychiatric diagnosis” (proposed by Spitzer ?? on page ??) See A on page 137).	
Research Reports	Depending on outcome of 1972 proposals, one (or both) of “On being sane in insane places” and Fordney-Settlage “Sexual experience of younger teenage girls seeking contraceptive assistance for the first time.”?? on page ??	

Table 5.4: Major events of 1973

Other papers to expect

- Paper by Tyler on individual differences and their importance for counseling. 10.1 on page 54
- Symposium on “Should Homosexuality be in the APA Nomenclature” by the Nomenclature committee, with special power \newline

Other potential proposals

- Marmor - official condemnation /censure of Socarides JAMA paper as nonscientific and a “Monstorous attack on homosexuality.”
- Leona Tyler principle (See 5.7 on page 43).
- Gold symposium on “Stop! You’re making me sick”

Papers to be distributed (if activities are approved)

On Gay Pride day in 1973, someone firebombed the ‘UpStairs Lounge’, a gay club in New Orleans, killing 32 people, 3 of whom were never identified. The Game Master should distribute the news prior to the APA conference. See <http://www.patheos.com/blogs/friendlyatheist/2013/06/24/remembering-the-upstairs-lounge-the-u-s-a-s-largest-lgbt-massacre-happened-40-years-ago-today/> for a

blog-length history, or "Let the Faggots Burn: The UpStairs Lounge Fire" by Johnny Townsend for a book-length history.

1973: Rosehan 'On being sane in Insane places' *Science* v.. 179 (Jan. 1973), 250-258

1974

Papers /Proposals other than the Presidential address are *likely* to be presented, but all depend on game play.

Item	First session	Second session
Presidential Address	Depends on previous elections	
Symposia	TBD	TBD
Propos-als for the Board	TBD	TBD
Proposals for Research Committee	Milgram 'small world' proposed by Milgram if in game, if not gamemaster See 5.2 on page 77 for sample proposal. Original paper included in supplementary materials.) .	
Research Reports	Depending on outcome of 1973 proposals, one (or both) of Zimbardo "Prison study" and Spitzer "Re-analysis."	

Table 5.5: Major events of 1974

Other papers to expect

- Symposium on "Social responsibility of Intellectuals" — Proposed by Clark 3.2 on page 22
 - Clark 3.1 on page 22
 - Chomsky 26 on page 133—Social responsibility of scientists
 - Marmor
- Milgram - Obedience
- Lief - genetic hypothesis and diagnostic taxa. 16.1 on page 86

Open hearings /symposium on the Spitzer def of 'mental illness'.

Other possible proposals

Fryer - deem aversion therapy to treat homosexuality immoral. In opposition: Harlow.

Papers to be distributed (if activities are approved)

1974: Haney, C. Banks, C. & Zimbardo, P. (1973). "Interpersonal Dynamics in a Simulated Prison" International Journal of Criminology and Penology 1, p. 69–97

Spitzer, R. and Fleiss, J. (1974). "A Re-analysis of the Reliability of Psychiatric Diagnosis" Brit. J. Psychiat. 125, 341–7

1975

Papers /Proposals other than the Presidential address are *likely* to be presented, but all depend on game play.

Item	First session	Second session
Presidential Address	Depends on previous elections	
Symposia	TBD	TBD
Propos-als for the Board	TBD	TBD
Proposals for Research Committee	TBD	
Research Reports	Depending on outcome of 1974 proposals, Migram "small world"	

Table 5.6: Major events of 1974

Other papers to expect

- Clark /Anastasia /Spiegel on statistical structures of 'normal' in the DSM-III taxa.
- Open forum on definition of mental illness (called by Nomenclature /Spitzer Task Force) (See 11 on page 57 - Definition of 'mental illness').
- Zimbardo on the 1968 code of ethics
- Fordney-Settlage on the disparity between psychoanalytic theories of male and female sexuality. 4.1 on page 26
- Hopcke on Jungianism and homosexuality. 15.1 on page 82
- Marr on levels of explanation in Psychology 27.1 on page 140
- Symposium on 'innateness' between Piaget 9.1 on page 49 and Chomsky, 26.1 on page 137 with implications for social responsibility and homosexuality.

Other possible proposals

*Clark should propose affirmative action (See 5.9 on page 44 and 3 on page 19 — Association Business.) Stanley Milgram should oppose (8 on page 43 — Social responsibilities of social scientists¹.)

- Zimbardo /Research committee - revisions to the 1968 code of ethics.

¹ Milgram is the only psychologists of this era for whom I can find documentation of opposition to the affirmative action plan, although it was certainly more widespread. That documentation is, suffice it to say, sparse. It is mentioned once in Blass, T. (2009). *The Man Who Shocked The World: The Life and Legacy of Stanley Milgram* Public Affairs, p. 201.

Papers to be distributed (if activities are approved)

An Experimental Study of the Small World Problem. (1969). An Experimental Study of the Small World Problem, 32(4), 425–443. <http://doi.org/10.2307/2786545?refreqid=search-gateway:a88fe1dd7db6336d575e302coc15221e>

Proposals that may come up according to game play

As citizens, members of the APA have the right to advocate for any cause through the myriad of political advocacy organizations, but when psychologists and psychiatrists speak for the profession through APA public stances and proclamations, it should be from science and professional experience.

On occasion psychiatrists are asked for an opinion about an individual who is in the light of public attention or who has disclosed information about himself/herself through public media. In such circumstances, a psychiatrist may share with the public his or her expertise about psychiatric issues in general. However, it is unethical for a psychiatrist to offer a professional opinion unless he or she has conducted an examination and has been granted proper authorization for such a statement.

Table 5.7: Leona Tyler Principle (L Tyler, when president)

POSITION STATEMENT (1974)

Approved by the Board of Trustees, December 1970

This statement was prepared by the Committee on Psychiatry and Psychology.

Because of professional and legal considerations, the ultimate medical responsibility for patients admitted to hospitals should remain with licensed physicians. Psychologists, like other nonmedical professionals, should be eligible for some type of hospital appointment

Table 5.8: Position Statement: Hospital Privileges for Psychologists

POSITION STATEMENT

Approved by the Board of Trustees, December 1977

Approved by the Assembly of District Branches, October 1977

This statement was prepared by the Committee of Black Psychiatrists¹ and recommended by the Council on National Affairs

THERE IS a continuous need to increase the number of minority psychiatrists; the American Psychiatric Association has consistently demonstrated its commitment to the principle of affirmative action as reflected in its efforts of recruitment and training of minority psychiatrists. APA has previously developed and instituted policies recognizing and supporting the special mental health issues of minority populations; however, there are serious threats to affirmative action programs that have facilitated the following endeavors: APA reaffirms these commitments and policies by 1) issuing a public statement drawing attention to the potential deleterious effects that such threats pose to the delivery of health services to minority groups; 2) actively participating with other professional and educational groups to assure continued recruitment and training of minority candidates in medical disciplines; and 3) further exploring and developing, through its appropriate components, mechanisms to assure continued implementation of these commitments.

Table 5.9: Position Statement: Affirmative Action

5.2 *Items you might need*

Access to Mental Rotation Task

Hard copies of:

- Sample conference schedule (Section ?? on page ?? of the instructor's manual).
- Sample Call for Papers and Symposia (Section ?? on page ?? of the game book).
- Sample call for research grants (Section ?? on page ?? of the game book).
- Papers to be distributed (see table ?? on page ?? of the instructor's manual)

Credibility Points

1 Credibility point	1 Credibility point	1 Credibility point	1 Credibility point
1 Credibility point	1 Credibility point	1 Credibility point	1 Credibility point
1 Credibility point	1 Credibility point	1 Credibility point	1 Credibility point
1 Credibility point	1 Credibility point	1 Credibility point	1 Credibility point

APA positions menu

Position	Cost
Vice-President of the APA	
Member of the Board	
Chair, Research Committee	
Chair, Nomenclature Committee	
Chair, Program Committee	

Table 5.10: Credibility costs for service to the APA

Establishing Liminality

Ads for Psychopharmaceuticals and Health Insurance

To set the stage, and, to the observant student, to note that most of these drugs are marketed for use on women by men—all the while being tested almost exclusively on men.

Many such can be found here: <https://prescriptiondrugs.procon.org/view.resource.php?resourceID=005597> (1960s) and here: <https://prescriptiondrugs.procon.org/view.resource.php?resourceID=005598> (1970s)

It might also be worth putting up some ads for health insurance, as this is important to understanding the drive to standardize treatment. These are not too difficult to find on line, but here's a link to a few: <http://www.vintageadbrowser.com/money-ads-1970s/8>

There are a great number of blogs and websites dedicated to storing and distributing these historical images. Here are a few:

- Miltown: <http://www.homeeverafter.com/miltown-a-piece-of-1950s-homemaker-history/>
- Tofranil: <https://www.biopsychiatry.com/imipramine/350x525xtofranil.html>
- Librium:
- Valium:

From http://faculty.weber.edu/ewalker/Medicinal_Chemistry/topics/Psycho/psycho.htm

At the same time, we should remember that Medicare and Medicaid were created in 1965, and the health insurance industry was undergoing a simultaneous revolution:

- BlueCross 1960:



Figure 5.1: Advertisement for Librium, 1962. From <https://www.mmm-online.com/channel/xPDY12K159/webpage-to-induct-lerner-girgenti-and-rubin/article/155796/>

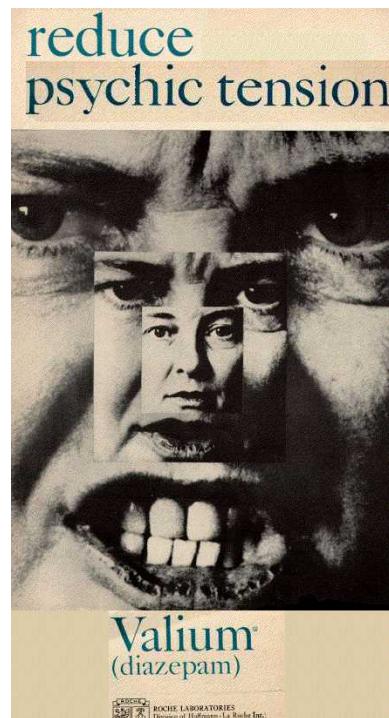


Figure 5.2: Advertisement for Valium, 1965.

Learning Objectives

In many ways, this is not a game about Psychology or Psychiatry, it is a game about the Philosophy of Science. This shouldn't really be surprising, as the history of the Psychology and Psychiatry is intimately linked to the history of the Philosophy of Science. Arguments made by Wundt, Freud, Watson, Hull Skinner and Miller all rely heavily on claims regarding what is or is not a legitimate scientific claim.² This issues has not disappeared from undergraduate Psychological classroom either. The APA's guidelines for the Undergraduate Major in Psychology, published 2007, lists 10 learning outcomes for a major. The first is in box ?? on page ??, and the second in ?? on page ??.

Goal 1: Knowledge Base of Psychology

Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology

Suggested Learning Outcomes

- 1.1. Characterize the nature of psychology as a discipline
 - a) Explain why psychology is a science.
 - b) Identify and explain the primary objectives of psychology: describing, understanding, predicting, and controlling behavior and mental processes.
 - c) Compare and contrast the assumptions and methods of psychology with those of other disciplines
 - d) Describe the contributions of psychology perspectives to interdisciplinary collaboration.

Table 5.11: Excerpt from APA Guidelines for an Undergraduate Major in Psychology, 2007

If the reader compares to the definitions offered by the various historical figures in the ?? on page ??' in the gamebook, you will no doubt recognize the theoretical pluralism embodied in the APA's statements. These guidelines were superseded by the more prescriptive 'Version 2.0' in 2013, but the same themes reappear:

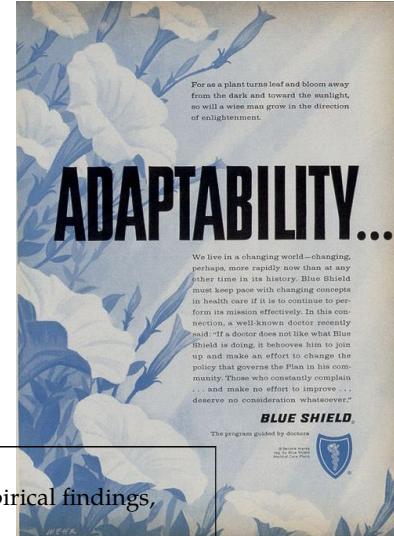


Figure 5.3: Advertisement for Blue Cross, 1960. From <http://www-decodog.com/inven/MID/md28530.jpg>

² See, e.g. Wundt (1902, pg 5–6) Freud _____, Watson (Mathematical paper), Skinner _____, Hull, (1935), Miller (citing Suppes)

Goal 1: Knowledge Base in Psychology

1.1 Describe key concepts, principles, and overarching themes in psychology.

- 1.1a Use basic psychological terminology, concepts and theories in psychology to explain behavior and mental processes.
- 1.1b Explain why psychology is a science with the primary objectives of describing, understanding, predicting and controlling behavior and mental processes.
- 1.1c Interpret behavior and mental processes at an appropriate level of complexity.
- 1.1d Recognize the power of the context in shaping conclusions about individual behavior.
- 1.1e Identify fields other than psychology that address behavioral concerns.

Table 5.12: Excerpt from APA Guidelines for an Undergraduate Major in Psychology 2.0, 2013

Version 2.0 instrumentalizes the ‘nature of psychology as a discipline’ into the measurable phrase “use basic psychological terminology, concepts and theories.” It is also notable that the phrase “and mental processes” appears in three of the subpoints (1.1a, 1.1b and 1.1c), rather than just one (b). One might be tempted to assert that behaviorism is well and truly dead in Psychology.

My main for quoting this document is, however, 2007 (a) and 2013 (1.1b).

The question *if* psychology is a science is a question of demarcation – the classic issue in the Philosophy of Science. But answering *why* psychology is a science assumes a affirmative answer to the demarcation problem, and hence, a particular view in the Philosophy of Science. This has not been a settled issue until recently.

For example, Wundt charged Hebart with non-scientific investigations into introspection,³ because Hebart did not adequately control the environment. Watson charged that McDougall’s notion of behaviors having a ‘purpose’ was non-scientific,⁴ because McDougall did not follow strict verificationism in the philosophy of science. When Hull charged that Tolman’s explanations were unscientific because they positing internal entities, he did so by citing Newton⁵ (1935). Miller and Chomsky rejected Skinner’s arguments by citing Philosophers of Science such as Patrick Suppes, who contend that the history of science shows that scientists do posit internal entities, if they can modeled mathematically.

Textbooks

Most *Introduction to Psychology* textbooks address Goal 1 in Chapter 1. The all include a brief historical overview, and all note Wundt, James,

³ Wundt, 1902, pg. 5–10

⁴ Watson 1929, pg. 25–6 “The Behaviorist finds no scientific evidence for the existence of any vitalistic principle, such, for example, as Prof. MacDougall’s ‘purpose.... .There are many things we cannot explain in behavior just as there are many things we cannot explain in physics and chemistry, but where objectively verifiable experimentation ends, hypothesis, and later theory, begin.”

⁵ Newton, the critic would note, posited ‘force’, an invisible entity that was criticized at the time as an ‘occult’ power.

Freud and Pavlov.

Book	Def. Of 'Science'	Historical highlights (I.e. Section heads)
Lilienfeld et al. 2014	"A systematic approach to evidence" (p.8)	Early History (27-29), Structuralism (30), Functionalism (30), Behaviorism (30-31), Cognitivism(31) and Psychoanalysis (31-32) Significant section on pseudoscience (p. 12-26)
Cacioppo and Freberg 2018	"a special way of learning about reality through systematic observation and experimentation." (p. 36)	Greek philosophers, British empiricists, ancient physicians, 17th and 18th century natural scientists, Helmholtz (all 6-10), Wundt (11-12), Gestalt (12), James, (12-14), Freud (14) & Humanistic Psychology (15), Behaviorists and Cognitive Revolution (16-21) Defines 'psychology' as 'science of mind' rather than 'science of behavior and mental processes' (p. 5)
Cervone and Caldwell 2015	'scientific methods refers to a broad array of procedures through which scientists obtain information about the world' (p. 9)—Collect evidence, record observations systematically, record how observations were made.	Aristotle & Buddha (20-22) Locke & Kant (22-24), Wundt (24-25), James (25-26), Structuralism & Functionalism (27), Psychoanalysis, Behaviorism (28), Humanistic (28-29), Information Processing and the Cognitive Revolution (29-30)
Gazzaniga 2018	'psychology: the study through research of mind, brain and behavior'—"gain accurate knowledge about behavior and mental processes only by observing the world and measuring aspects of it" (p. 30)	Descartes (p. 10-11), Wundt (11-12), Structuralism (12), Functionalism (12), Evolution, Adaptation and Behavior (13), Psychoanalytic Approach (14), Behaviorism (15), Gestalt (15-16), Humanistic (16), Cognitivism (16) Additional definition of 'scientific method' that combines method with goals.
Hockenbury, Nolan, and Hockenbury 2014	The scientific method is a set of assumptions, attitudes , and procedures that guides all scientists, including psychologists, in conducting research (16) – empirical evidence: "Verifiable evidence that is based upon objective observation, measurement and/or experimentation." (16)	Influence of Philosophy and Physiology (3-4), Wundt (4), Titchener (4-5), James (5-6), Freud (7-8), Watson (8), Rogers (9)

Myers and DeWall 2015	"less a set of finding than a way of asking and answering questions" (5)	Wundt (2), Structuralism and Functionalism (2-3), First Women in Psychology (3-4), Behaviorism (4), Freudian Psychology (5), Humanistic Psychology (5), Cognitive Revolution (5)
Zimbardo, Johnson, and McCann 2012	"based on objective, verifiable evidence—not just the opinions of experts and authorities, as we often find in non-scientific fields" (4)	Separation of Mind and Body and the Modern Biological Perspective (Descartes (12-13)), The Founding of Scientific Psychology and the Modern Cognitive Perspective (Wundt (13-14), Structuralism (Titchener) (14), James (14-15), Cognitive (15-16)), The Behavioral Perspective (16-17), The Whole-Person Perspective (17-19), The Developmental Perspective, The Sociocultural Perspective "Perspective" approach is unique in the set of textbooks reviewed.
Rathus 2012	"Psychology, like other sciences, seeks to describe, explain, predict, and control the events it studies... ...behavior and mental processes." (4)	Aristotle(8-9), Structuralism - Wundt (9), Functionalism - James (9-10), Behaviorism (10), Gestalt (10-11), Psychoanalysis (11-12)

Table 5.13: Timeline of critical events

When one reviews these offerings, one is struck by the lack of variation. All cite the same historical movements—including, somewhat surprisingly, humanistic psychology.⁶ They all define science as a method or procedure, and all reject the notion that science is a body of knowledge to be memorized. This cannot be random. No equivalent set of texts in Philosophy would be as uniform.

Moreover, the idea that science can be distinguished from non-science or pseudoscience based on method alone is highly questionable. Ptolemaic astronomy based its work on careful observation, and applied the rigorous methods of mathematics in order to describe and predict the movements of the heavens. So does astrology. On the other side of the dialectic, there is little in relativistic physics or quantum mechanics that is observable or was subject to experiment *before* it was accepted as scientific.

So neither way is the view articulated by these textbooks correct—there are non-scientific endeavors that fit the methodology-based demarcation, and there are scientific endeavors that do not. Simply speaking, one cannot demarcate science from non-science using

⁶ For example, Hothsall's *History of Psychology* covers all the views and thinkers covered here, right up to cognitivism, but contains no mention of Maslow or humanistic psychology. (Hothsall 1984)

methodology alone.

We are in dire need of a richer, more complete approach to introducing the scientific history of Psychology.

Learning Objectives of the Game

At the completion of this game, the students will be able to:

- Recognize that the historical contingency of the concepts, principles and overarching themes that define and distinguish of our contemporary disciplines of the mind.
- Identify and respond to historical examples where debates about evidence shift into debates whether or not the evidence is scientific—i.e., about the philosophy of science, and the legitimacy of evidence. (See examples in XX[Peter Bradley, 7/23/18, 4:44 PM])
- Demonstrate, using actual examples from historical psychology, a more sophisticated understanding of the process of scientific inquiry than the simplistic experimental model.
 - Understand the concept of a ‘paradigm’ as Kuhn originally meant it: as a ‘model’ experiment that defines an era of a discipline or a scientific culture.
 - Distinguish between observational studies, experimental interventions and modeling, and the scientific value of each.
 - Apply their understanding of paradigm cases like Newton’s *Experimentum Crucis*, and Hermann Ebbinghaus’ memory experiments as *the* paradigm of experimental psychology, to judge the validity of new and novel research proposals.
 - Recognize and manipulate the logical structure of scientific proposals (i.e. The H-D method) and recognize that the reasoning of real, historical scientists does not often follow this ideal.
 - Identify potential confounding variables in basic experimental design, and suggest ways those variables may be controlled.
 - Identify the strengths and weaknesses of non-experimental social science methods, specifically observational research (both naturalistic and participant-observation) and modeling; and apply this analysis to real-word cases (Rosenhan 1973, Haney, Banks, and Zimbardo 1973, e.g.).
- Demonstrate a working knowledge of the intellectual ‘environment’ that gave rise to behaviorism and psychoanalysis.
- Engage with primary sources in the history of psychology.

- Demonstrate a working knowledge of the major distinctions in the study of the mind: psychodynamic, behavioristic and cognitive,⁷ including being able to correctly categorize major views /works, and discuss the complexity of cases on the margins (i.e. Tolman, Bandura)
- Appreciate the social impact taxonomies and labels can have on others, and the social significance thereof.

Conceptual issues at stake

Many of the issues raised in the course of the game are appropriately philosophical. While we've instructed the students to focus on the evidence, and its relationship with the claims asserted, one is often forced to notice how few of the great conflicts in the history of psychology and psychiatry are actually about the quality of the evidence presented. The conflicts are, most frequently, actually about whether the evidence in question can be considered 'scientific.'

The APA guidelines cited above do not report *what* the key terminology, concepts and theories are—we cannot claim to cover all that a traditional Introduction to Psychology class would, but we can point out where a number of these key concepts appear:

- Conditioning: classical, operant and vicarious: Section 4.2 on page 133, articulated by Bandura, Harlow and Hooker. Specific experiments to be considered include Lab ?? on page ??
- Social Psychology: Zimbardo (Lab: Zimbardo proposes A on page 107 to Research committee and, if time allows, 5.2 on page 77 from Milgrim.)
- Statistical concepts: Hooker's paper (Psychology and 1956) sets the stage, but it will reappear in the game play of Anastasi and Spitzer. Spitzer's presentation on the Feighner Criteria should cover statistical concepts. Anastasi should present a paper about 'norms' and whether 'normal' is a statistical function of a population, or an ideal. Lab includes A on page 137
- Experimental Design: Research committee should have a number of distinct research designs to consider. See Section 4.3 on page 140 in the game book as well as Section 4.3 on page 171.
- History and Systems: Section 2.2 on page 25 covers most of what common textbooks cover in this section, including the rise of empirical psychology from the 19th century 'natural philosophers', early experimentalism, psychoanalysis, behaviorism and cognitivism. We do not cover 'positive psychology' or 'humanistic psychology' (I.e. Maslow).

The Philosophy of Science concepts and theories that arise are:

- The logic of paradigms ('normal' science), and the revolution periods of transition between them. (Section 4.3 on page 142)
- Hypothetical-Deductive model of scientific reasoning, including verificationism and falsificationism. 4.3 on page 149, Research committee discussions.
- Modeling in scientific inquiry—Section 4.3 on page 169. Lab includes 5.2 on page 67.
- Complications of observation — Section 4.3 on page 152. Lab includes A on page 92.

I've noted where in the games these issues arise.

Some of these issues that will make an appearance in the game are:

Issue	Partisans	Session
Homosexuality <i>is / is not</i> a mental disorder	Spitzer, Socarides, Bieber, Marmor	Week 1, session A.
The 'medical model' <i>is / is not</i> a suitable approach to understanding the human mind	Szasz, Albee v Spitzer and all the MDs	
Psychoanalysis <i>is / is not</i> scientific.	Psychoanalysts v. Cognitivists and Behaviorists	
Mental disorders should be classified according to <i>observable symptoms / underlying mechanisms</i> .	Spitzer and the behaviorists v. psychoanalyst faction	
Mental illness / mental disorder <i>are / are not</i> genuine medical conditions and therefore must be treated only by medical doctors.	Psychiatrists (MD) v. Psychologists (PhD)	
How do we define a mental illness / disorder—regardless of whether it is or is not a medical condition?	Spitzer, main three factions	

Are mental health norms defined in terms of statistical frequency of a behavior in the population, or in terms of the 'ideal' behavior of an individual?	Anastasi and Bieber	
The mentally ill <i>must / should be treated exclusively by psychiatrists / psychologists and psychologists / exclusively psychologists</i>	Albee	
What does scientific research on the mind look like? Does it involve modeling and adductive reasoning, or is it limited to correlations between of observable behaviors?	Cognitivists and Psycho-analysts v. Behaviorists	
What are the ethical limitations on psychological / psychiatric research?		
What is the proper role of an intellectual—specifically a social scientist—in a democratic society?	Chomsky, Clark and Albee v. Tyler and Bieber	

Table 5.14: Major Issues for debate

Research design

I've included a 'textbook' style section (4.3 on page 157) of the game book that introduces the standard independent variable-dependent variable-controlled variable logic that is included in most research methods in psychology courses. I prefer, of course, to introduce these ideas with real historical examples, as I do in Section 4.3 on page 142.

I included the 'textbook' section to give the research committee a quick and dirty heuristic for judging the validity of proposed experiments. But this simplistic approach is largely misguided and the research committee may stumble as a result. For example, they will encounter these real, historical examples that simply don't fit the model:

- We know that Rosehan measured the time spent inside a mental health institution as a dependent variable, but what was the IV? Was there a control group?
- We know that the IV in Zimbardo's prison 'experiment' is assignment to either 'prisoner' or 'guard' role, but what is his DV?
- Milgrim measured the number of hops a letter would take in his 'small world' experiment, but what is his manipulation of the IV?

We want the research committee to raise these kind of questions when these proposals come before the committee.

Readings

Psychology is a heterogeneous field, and including Psychiatry in the game makes it even more complex. This game is intentionally designed to embody the kind of interdisciplinary dialogue that occurred in the 1970's and gave rise to cognitivism and our theoretically-pluralistic understanding of sexuality and human behavior in general.

Common reading

As such, each student ought to read the readings contained on his or her role sheet, a full summary of which is included in table ?? on page ??.

The challenge of this game is to ensure that there is a common base among the various approaches to the mind to ensure productive discussion. I've chosen Freud's *Introductory Lectures on Psychoanalysis* because everyone—friend and foe—would have needed to understand and respond to Freud during this period.

The *Lectures* are not difficult, but they are long. I use the reading schedule laid out in Box ?? on page ?? over three class sessions, and focus on the points listed therein. Of course, you are welcome to adjust this to your needs.

Class 1, first class: Part 1 (Lectures 1–4): Parapraxes, with special attention paid to:

1. The topographic hypothesis and introduction of the unconscious (p. 25) (Thesis #3 in 4.1 on page 117)
2. The economic hypothesis and libidinal energy (p. 26) (Thesis #3 in 4.1 on page 117)
3. The idea of the appearance a 'disturbing intention' (Lecture III, pg. 63–72) and the relation between the 'disturbing intention' and the 'disturbed one' (p. 75–78)—which sets the stage for his mechanisms of representation (see ?? on page ??).
4. The Dynamic hypothesis (p. 82 and again p. 94) (Thesis #1 in 4.1 on page 117).

Class 2: Dreams (Lectures 5–15)

1. Transformations (I.e. 'Mechanisms of representation' in Dream-work) in Lecture 11: Condensation (p. 210–214), Displacement (214–215), Plastic portrayal (215–219), Opposition (219–223). (see ?? on page ??)
2. Lecture 13: first instance of thesis #4 Genetic hypothesis: 'regressive' nature of dreams and origination in childhood
3. Instance on sex as source of all energy, including in Children (p. 258)

Class 3: Neurosis (lectures 16–28)

1. Definition of delusion (p. 310)

2. Symptoms as meaningful ("having a sense") – Lecture 17, p. 318–333, includes discussion of 'obsessional neurosis' (monomania /OCD) throughout. Good for comparison against other approaches.
3. Economic hypothesis reappearance - p. 340.
4. Lecture 14 - Resistance and Repression. Def. of repression on pg. 364, early characterization of Thesis #5 Structural Hypothesis on pg. 365, p. 425 and 437.
5. Transference neurosis (p. 371)
6. Discussion of homosexuality ('inverts') p. 377–378, use of phrase 'ego-syntonic' on pg. 436, which may or may not appear in Spitzer's proposal.
7. Restatement of economic hypothesis in connection with *pleasure principle* p. 443
8. Lecture 23: Classical psychoanalysis approach to classifying and treating symptoms – 'symptoms' defined on pg 445, definition of 'falling ill' on pg. 480.
9. Lectures 25–27 cover specific neurosis, and 28 covers treatment.

Table 5.15: Core text reading list

I have also included Bacon's *Novum Organon* and Ebbinghaus *Memory* as supplemental core texts. I enjoy both, and believe students would be better off having read them, but they are not necessary for game play.

Weekly readings

There will be primary source readings attached to each conference, depending on the actions of the Research Committee. See Section B on page 146 for more.

Overview of events and assignments in the game

Overview of assignments, by character

Paper	Proposals	Research
G Albee— Nomenclature '71-'72 Board member 'B' '71-'72* 'Medical Model' – symposium '72	Parallel medical system for clinical psychology '72	
A. Anastasi—Program '71-'73 "On psychometrics" - presidential '74	Proposal to fix gender-specific language in guidelines (program committee '71) Women in Psych / Psych of Women '74	

A. Bandura —VP '71 (Board '71-'73) "Behavioral theory and models of man" '72	'73 – reject Bieber	
I. Bieber / C. Socarides Comment on Green / debate Marmor '72 Report on sexual deviation (Freudian) '73 Symposium on nomenclature '73 (both, if in game)	Propose taskforce '71, report '73 Oppose Marmor	Gold's '71 proposal to remove 302.0 from DSM-II
N. Chomsky "The responsibilities of Intellectuals" - symposium '74 (could be paper) Debate with Piaget '75	Oppose L. Tyler principle '73	
K. Clark —Research '71-'73 "psychology as a force of social change" - symposium '74 (could be presidential)	Oppose L. Tyler principle '73 Proposal to create affirmative action plan '75	
D. Fordney Settlage* Paper critiquing the focus on male sexuality '75	Propose balance compromise Albee and Hopcke on psych. Practicing in hospitals, but not prescribing drugs.	Sexual experiences of younger women seeking contraceptives. '73
J. Fryer "I am a homosexual, and a psychiatrist." - symposium '71	Proposal to deem the use of aversion therapy as immoral '74	
P. Gebhard —Program '71-'74 Summary of the Kinsey report '72	Honor of E. Hooker '72	
R. Gold* Symposium on nomenclature '73	Support Marmor's '71 proposal Draft proposal with Spitzer '73	
R. Green* Report on history of homosexuality '72 (with J. Spiegel) Symposium on nomenclature '73	Taskforce on the history of homosexuality in Psych '71 (with Spiegel)	*APA v. 3 45 '74-'75 (Clinic in Ugrad classroom)*
H. Harlow —Board '71 "Lust, latency and love" - paper '72	Defend the use of aversion therapy '74	APA v. 1 #2 (Operant Conditioning)
E. Hooker —Program '71-'72 "The mental health of non-patient male homosexuals" - symposium '71	Oppose dissolution of nomenclature committee.	
R. Hopcke*		

Jungian approaches to homosexuality '75	Support the proposal to limit care of mental illness to MDs	
F. Kameny* / B. Gittings* "Gay, Proud and Healthy" - symposium '71	Organize and Chair the 'big' symposium "Should 'homosexuality' be in the DSM-III?" in '73 where Green, Marmor, Bieber, Gold, Socarides, Spitzer should speak.	Propose Siegelman "Adjustment of homosexual women" 1971
H. Lief Paper on genetic hypothesis and diagnostic taxa '74	Oppose Spitzer's nomenclature proposal '72	
J. Marmor —Research '71-'74 "Limitations of Free Association" - paper '71 Comment on Green / debate Bieber '72 Symposium on nomenclature '73	Propose 'homosexuality' be removed from category 302. '71 Propose a condemnation of Socarides' JAMA paper. '73	APA v. 4 #80 '73 (Dream Analysis)
D. Marr* 'Levels' of explanation paper '75		Propose APA v. 4 #43 '72 (Magic number 7)
S. Milgram* —Board member 'A'* Summary of obedience experiments / findings '74	Oppose affirmative action plan - '75	Propose 'small world' experiment '74
G. Miller —Board '71-'72 "Psychology as a means of promoting human welfare" - '71	'72 – reject Bieber	Present Mental Rotation '71 (Shepard / class data)
J. Piaget* Debate with Chomsky '75		
L. Tyler —Research '71-'72 "Design for a hopeful psychology" - president '73	Leona Tyler principle '73	
J. Spiegel —Nomenclature '71-'74 Report on history of homosexuality '72 (with R. Green) Presidential address '75	Taskforce on the history of homosexuality in Psych '71 (with Green)	
R. Spitzer —Nomenclature '71-'76		

"The Feighner Criteria" '72	Symposium on nomenclature '73 Open hearing '74 on mental illness	As nomenclature committee: write DSM according to description of symptoms, not causes '72 AND proposal to disband nomenclature and form Spitzer Taskforce '73 With R. Gold, draft proposal to remove 'homosexuality' immediately in '73 Reliability of psychiatric diagnosis '73
T. Szasz "The myth of mental illness" - paper '71 "Medical Model" - symposium '72	Oppose committee on psychology of women '73 (on grounds of reification of the term 'women')	
P. Zimbardo* Paper on the ethical problems of Zimbardo '73, and any holes in the APA guidelines. '75		Propose Zimbardo '73 (if character is not used, the proposal should come from the gamemaster)

Table 5.16: Overview of specific assignments, by character

Papers in italics are conditional. If not elected, the students should present them as papers.

Research items in italics are NOT included in the character sheet, and can be moved around by the instructor.

Not included in games smaller than 26.

Overview of topics

Issue / Year	Proposer	Objections	Mediator	Related papers
Demedicalization - 1971	Marmor	Socarides and Bieber	Spiegel and Green	
Psychology of Women - 1973	Anastasi	Szasz		4.1 on page 26
Limitation of care to hospital settings and psychiatrists 1972	Hopcke	Albee		?? on page ??
New DSM -1973	Spitzer / Nomenclature			

Ban Aversion Therapy in the treatment of homosexuality	Fryer			
Affirmative Action - 1975	Clark	Milgram		Clark Presidential Address (3.1 on page 22) or symposium 3.2 on page 22
Leona Tyler principle - 1974	Tyler	Chomsky, Clark		26.1 on page 137

Table 5.17: Overview by topic

Overview of elections, by year

Year	VP	Board at large	Research (replacing)	Nomenclature (replacing)	Program (replacing)
1971	1972: (Bandura)	A (Milgram)			
1972	1973	B (Albee)	(Tyler)	(Albee)	(Hooker)
1973	1974		(Clark)		(Anastasi)
1974	1975	A	(Marmor)	(Spiegel)	(Gebhard)
1975	1976	B	(elected 1972)		(elected 1972)

Table 5.18: Elections to be held each year

Committees, Publications and Exhibits

year	Board of Directors	Research Committee	Nomenclature Committee	Program Committee
Initial membership	Harlow (1971) Miller (1972) Bandura (1973) [A: Milgram]* [B: Albee]*	L. Tyler (1972) K. Clark (1973) J. Marmor (1974)	G. Albee (1972) J Spiegel (1974) R Spitzer (1976)	E. Hooker (1972) A. Anastasi (1973) P. Gebhard (1974)
1971	Proclamations removing Homosexuality heard and sent to nomenclature Approve taskforces for Green and Bieber	Administer Shepard	Metzler Approve Seigelman, reject Watson	Accept charge to consider removing 302.0 Prepare Dallas Conference schedule, distribute at the end of this conference

1972	Recognize Hooker Limit drugs to psychiatric, but recognize psychology access in hospital	Approve Rosehan. Fordney Settlage*	Propose observation, not theory-based DSM	Prepare Honolulu Conference schedule, distribute at the end of this conference
1973	Consider condemnation of Socarides Nomenclature report, send to general vote LT Principle	Approve Zimbardo, Spitzer	Propose dissolution in favor of Spitzer task force	Prepare Philadelphia Conference schedule, distribute at the end of this conference
1974	Create Psy. Of Women, Women in Psy. Bar Aversion therapy	Approve Milgram	[dissolved]	Prepare Chicago Conference schedule, distribute at the end of this conference
1975	Create Affirmative Action plan	Propose rewritten Ethics guidelines		

Table 5.19: Likely Actions

Managing Discussion

Labs and possible research proposals

As shown in Table 5.20 on page 63, various roles are tasked with proposing research studies to the research committee, conducting that research if it is chosen, and presenting the findings at the following conference. Not everything proposed can be carried out in an undergraduate classroom. When the proposal is impossible, the instructor should distribute the actual paper for evaluation *as if* it had been carried out. The instructors is, of course, encouraged to use classroom activities with which he or she is familiar.

I've pulled a number of experiments from the APA's *Activities Handbook for the Teaching of Psychology* v. 1–4 that correspond to many of the topics the class will be discussing. They are listed here, and attached as PDFs at the end of this document, if you do not have access to the *Handbooks*. The characters listed here are *suggestions*. The instructor should distribute these as he or she sees fit.

Title, author	Location in APA Handbooks	Suggested character, conference	Appendix
Accuracy of Observation, Paul J. Woods	v. 1,#2	Tyler or Anastasi 1971	B on page 146
Operant Conditioning: Role in Human Behavior, Edward Stork	v. 1,#23	Harlow	B on page 149

Operant Conditioning Demonstration, Patricia Keith-Speigel	v. 1,#24	Harlow or Hooker	B on page 151
Defense Mechanisms, Jack J Greider	v. 1,#75	Spiegel	B on page 154
To Sleep, Perchance to Dream, Ludy T. Benjamin, Jr.	v. 1,#80	Marmor	B on page 156
Mental Illness, James M. Gardner	v. 1,#81	Lief or Fryer	B on page 160
JAWS: Demonstrating Classical Conditioning, Randolph A Smith	v. 2,#19	Harlow or Hooker	B on page 163
Human Operant Conditioning, John K. Bare	v. 2,#20	Harlow or Hooker	B on page 166
Bringing the Clinic Into the Undergraduate Classroom, David M. Young	v. 3,#45	Someone on the Spitzer Task force, 1974-1975	B on page 169
Discovering the Relationship Between Operational Definitions and Interobserver Reliability, Angela H. Becker	v. 4,#15	Could be instead of Spitzer, 1973, or in combination	B on page 177
Information Processing Capacity: A Visual Demonstration of the Magical Number Seven, Fairfid M. Caudle	v. 4,#43	Marr or Miller	B on page 185
The Role of Prior Information in Dream Analysis, Douglas A. Bernstein	v. 4,#80	Marmor, after his 1972-1973	B on page 191

Table 5.20: Possible lab activities

Historical studies

When and if the Research Committee approves experiments that are based on historical realities, the game master ought to distribute the primary source report of said experiment for discussion in the following week. These are available under 'Primary Source Materials' on the GitHub site, and included in the Appendix.

- 1971: Lab: 5.2 on page 67. Citation: Shepard, R. N., & Metzler, J. (1971). Mental rotation of three-dimensional objects. *Science*, 171, 701–703.
- 1972: Siegelman, "Adjustment of Homosexual and Heterosexual Women" *The British Journal of Psychiatry* (1972) 120: 477–481.
- 1973: Rosehan 'On being sane in Insane places' *Science* v.. 179 (Jan. 1973), 250–258
- 1974: Haney, C. Banks, C. & Zimbardo, P. (1973). "Interpersonal Dynamics in a Simulated Prison" *International Journal of Criminology and Penology* 1, p. 69–97
- Spitzer, R. and Fleiss, J. (1974). "A Re-analysis of the Reliability of Psychiatric Diagnosis" *Brit. J. Psychiat.* 125, 341–7

These are provided to the instructor in case the students fail to come through on research design. They can either be handed to the relevant student to inspire creativity, or “submitted” to the research committee by a mysterious non-player character.

*Emotional responses in a human child.***Background:**

Many psychologists—Freud included—have held, with little evidence in support, that the human mind is built on a variety of instincts, such as self-preservation, sexual activity, etc. Emotional responses to fearful stimuli, such as rats and spiders, is commonly considered to be innate, possibly as a result of evolutionary pressures to avoid infectious or poisonous creatures. This experiment seeks to condition a fear-response in a human infant, thus establishing that there is no need for theoretical innate entities in our explanation of emotion in humans.

Rationale:

The success of Pavlov's work conditioning reflex responses to novel stimuli in canines has shown that behaviors previously believed to be instinctual are likely to have resulted from conditioning. The current experiment seeks to determine if that insight can be extended to humans, by conditioning an emotional response in a child—fear—that is widely believed to be instinctual. Demonstrating that these reflexes can appear without appeal to 'instinct' or 'adaptation' undermines the need for theoretically innate entities in our understanding of human behavior.

Experimental Design:

A child of a single destitute mother, currently employed as a wet nurse at a local hospital (Hopkins), has been recruited for the experiment. Given the nature of his mother's employment, the child is familiar with the clinical setting of a hospital, and hence an ideal subject for this experimental protocol. Previous work with this subject at the age of 8 months has demonstrated that he exhibits fear-like responses to loud sounds: the experimenter stood behind the subject, outside of eye sight and struck a steel bar with a hammer. On the first presentation, the subject startled and raised his hands. On the second, he began to tremble. On the third, he cried and seemed to be having a fit.

The experimenter proposes the following:

At 9 months of age, we will present the subject with (randomly): a white rat, a rabbit, a dog, a monkey, with masks with and without hair, cotton wool, and burning newspapers. Given the child's upbringing, it is unlikely that he has ever encountered any of these objects before. We expect him to have no emotional response to any of them, but if he responds, that object will be removed from the study before proceeding.

At the age of 11 months, one of the objects will be presented to him

again. When he moves towards contact with the object, the experimenter will make the loud noise already established as causing a fear reaction. Each movement towards the stimulus object will cause another loud noise stimulus. Once the fear reaction is well conditioned, the experimenter will present the subject with the fear-conditioned object and record the response. The child's reaction than will be compared with other similarly-aged children's reaction for typicality of fear-reactions in children.

The fear-conditioned object will be reintroduced over the subsequent weeks and months at regular intervals to determine the persistence of the conditioned response.

Significance and Contribution

This research has the potential to experimentally confirm or deny the commonly held belief that the fear response is innate, or at least instinctual. Pavlov's experiments with classical conditioning in dogs has shown that reflexes that were previously believed to be instinctual—such as salivation—could be conditioned in response to novel stimuli. If Pavlov's approach is to be applied to humans, it is incumbent that psychologists determine the existence and nature of human instinctual reactions, and if they can be conditioned like those of the canine.

References

- Pavlov, I. P. (1927). *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*.

Mental rotation of three-dimensional objects

Background:

Mentally rotating 3-dimensional objects is one indicator of spatial reasoning in humans. And it is one that is tempting to explain in terms of internal mental imagery. The 'cognitive hypothesis' holds that in order to solve mental rotation problems, a cognitive representation of the presented object must be rotated in the mind before an identification can be made - and it is that hypothesis that we wish to test here.

Rationale:

When asked to match three-dimensional objects presented in two-dimensional format, individuals report imagining the object in three-dimensions and rotating them mentally to test against the other possibilities. Introspective reports are, of course, notoriously difficult to address in a scientific way, but that does not mean that we cannot study the phenomenon. If individuals are manipulating mental representations, we would expect a measurable difference in reaction time given a matching task.

Experimental Design:

A number of adult subjects (the size of the class) will be presented with pairs of two-dimensional line drawings of three-dimensional blocks. Each subject will be asked to indicate as quickly as possible if the two were drawings of the same object rotated in space or different objects. Half of the experimental set will be rotated versions of the same object, the other half not. They will be presented to the subjects in random order. The time it takes to respond will be measured using computer software. We hypothesize that the amount of time necessary to respond will be correlated with the angle of rotation of the two objects, thus establishing the cognitive hypothesis.

The materials are available on the APA website: <http://opl.apa.org/Experiments/About/AboutMentalRotation.aspx> Your gamemaster will need to set up an account here: <http://opl.apa.org/Main.aspx>.

Significance and Contribution

This research has the potential to discover observable data that is consistent with the introspective reports of individuals.

On Being Sane in Insane Places

Background

However much mental health practitioners may be personally convinced that we can tell the normal from the abnormal, the evidence is simply not compelling. It is commonplace, for example, to read about murder trials wherein eminent psychiatrists for the defense are contradicted by equally eminent psychiatrists for the prosecution on the matter of the defendant's sanity. More generally, there are a great deal of conflicting data on the reliability, utility, and meaning of such terms as "sanity," "insanity," "mental illness" and "schizophrenia." Finally, as early as 1934, Ruth Benedict suggested that normality and abnormality are not universal. What is viewed as normal in one culture may be seen as quite aberrant in another.

Rationale

How do we know precisely what constitutes "normality" or mental illness? Conventional wisdom suggests that specially trained professionals have the ability to make resolably accurate diagnoses. In this research, however, we intend to challenge that assumption. What is—and what is not—"normal" may have to do with the labels that are applied to people in particular settings.

Experimental Design

Eight sane people, of varied backgrounds, will gain secret admission to 12 different hospitals, from varied geographical regions of the United States. Their diagnostic experiences will constitute the data of the study. The 'pseudopatients' will call the hospital for an appointment, complaining of 'hearing voices.' When asked what the voices said, they will reply that it was unclear, but that they were 'empty,' 'hollow,' and 'thud.' The pseudopatients will report that voices were unfamiliar and in the same gender as the pseudopatient. After admission to the psychiatric ward, the pseudopatient will cease simulating symptoms of abnormality.

The amount of time it takes for the pseudopatient to be released, along with any diagnoses and treatments, will be recorded.

Significance and Contributions

This study provides an opportunity to test the reliability of psychiatric diagnosis in the 'real world,' rather than the controlled environment of a university lab. The hospital environment imposes a special environment on its members in which the actions of a normal person

could be misinterpreted as 'insane' or 'abnormal.' This study will determine the extent of that influence on psychiatric diagnosis.

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Adjustment of Homosexual and Heterosexual Women

Background The traditional psychiatric belief that homosexual men are emotionally unstable has recently been challenged by Evelyn Hooker's study of non-prisoner non-patient homosexual men. There have been a few similar studies on women. The contention that homosexual women are neurotic has typically been voiced by clinicians reporting on their own patients. One exception is the recent psychometric investigation by Kenyon (1968) who studied a non-clinical group of English homosexual women, and concluded that they were higher in neuroticism than a comparison group of heterosexuals. In contrast to the 'illness' notion of homosexuality, the authors of three psychometric studies dealing with non-clinical homosexuals and heterosexuals reported that heterosexual women were not better adjusted than homosexuals. (Armon, 1960; Freedman, 1968;

Rationale

The paucity of research in this area is exemplified by the fact that a total of only four studies, noted above, have been found to date. Even the clinical literature, which is replete with case studies and therapeutic discussions concerning male homosexuality, is strikingly sparse in the area of lesbianism. The present study is proposed to add to the small body of data we now have on the adjustment of homosexual versus heterosexual women.

Experimental Design

Working with the leadership of the New York branch of the Daughters of Bilitis, a questionnaire will be sent out to recruit members for the study. And additional questionnaire will be distributed through a popular homophile bookstore in Greenwich Village, New York. And equivalent number of heterosexual women will be recruited from the undergraduate and graduate population of local colleges and universities.

Several different instruments will be used to measure the overall psychological adjustment of the participants, including Scheier and Cattal's Neuroticism Scale Questionnaire (NSQ) (1961) tests of Alienation and Trust (Struening & Richardson, 1965), Goal Directedness, Self-Acceptance and Sense of Self (Dignan, 1965), Dependency (Comry, 1964), Nurturance (Harvey et al. 1966) and Neuroticism (MacGuire 1966). The Crowne and Marlow Social Desirability Scale (1960) will also be used. The differences on these measures between the homosexual and heterosexual women will be compared to test the 'illness' model of homosexuality in women.

Significance and Contribution

Recent interest in and discussions of the 'illness' model of male homosexuality have almost completely ignored the parallel issues for homosexual women. This study is a small step towards closing that gap.

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A Re-analysis of the Reliability of Psychiatric Diagnosis

Introduction

Classification systems such as diagnosis have two primary properties, reliability and validity. Reliability refers to the consistency with which subjects are classified; validity, to the utility of the system for its various purposes. In the case of psychiatric diagnosis, the purposes of the classification system are communication about clinical features, aetiology, course of illness and treatment. A necessary constraint on the validity of the system is its reliability. There is no guarantee that a reliable system is valid, but assuredly an unreliable system must be invalid.

Background

Studies of the reliability of psychiatric diagnosis provide information on the upper limits of its validity. This study will consider some of the difficulties in appraising diagnostic reliability, offers a re-analysis of the available data from the literature, and suggests a possible course of action to improve psychiatric diagnosis.

Rationale

Zubin (1967) reviewed the major studies of reliability of psychiatric diagnosis performed until 1966. He noted that diagnostic reliability is referred to in three different ways: agreement between independent diagnosticians examining the same patients, stability in diagnosis over time, and similarity in diagnostic frequencies for comparable samples. It is the first sense—interjudge agreement—that is fundamental.

Recent studies of interjudge agreement of psychiatric (Schmidt and Fonda, 1956; Kreitman, 1961; Beck et al., 1962; Sandifer et al., 1964) report on agreement as to the presence or absence of a diagnosis, but they neglect to consider the rate at which diagnoses are made.

Cohen (1960) has recently developed a statistical measure (called 'kappa') of interjudge agreement that incorporates a correction for chance agreement. This study proposes to recalculate the reliability of psychiatric diagnosis from these studies based on Cohen's Kappa.

Experimental Design

The study will use existing data, culled from five recent papers measuring the interjudge agreement of psychiatric diagnosis.

Significance and Contributions

There is little doubt that the reliability of psychiatric diagnosis is being questioned at this time. If the presumed agreement of previous work depends merely on the rate of chance agreement, psychiatry must reevaluate its classification system immediately.

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Interpersonal Dynamics in a Simulated Prison

Background

After he had spent four years in a Siberian prison the great Russian novelist Dostoevsky commented, surprisingly, that his time in prison had created in him a deep optimism about the ultimate future of mankind because, as he put it, if man could survive the horrors of prison life he must surely be a “creature who could withstand anything.” In the century which has passed since Dostoevsky’s imprisonment, little has changed to render the main thrust of his statement less relevant. Although we have passed through periods of enlightened humanitarian reform, in which physical conditions within prisons have improved somewhat and the rhetoric of rehabilitation has replaced the language of punitive incarceration., the social institution of prison has continued to fail. On purely pragmatic grounds, there is substantial evidence that prisons neither “rehabilitate” nor act as deterrent to future crime—in America, recidivism rates upwards of 75% speak quite decisively to these criteria. On humanitarian grounds as well prisons have failed: our mass media are increasingly filled with accounts of atrocities committed daily, man against man, in reaction to the penal system or in the name of it. The prison undeniably creates, almost to the point of cliché, an intense hatred and disrespect in most inmates for the authority and the established order of society into which they will eventually return. And the toll which it takes on the deterioration of human spirit for those who must administer it, as well as for those upon whom it is inflicted is incalculable.

Rationale

Attempts to provide an explanation of the deplorable condition of our penal system and its dehumanizing effects upon prisoners and guards, often focus upon what might be called the *dispositional hypothesis*. While this explanation is rarely expressed explicitly, it is central to a prevalent non-conscious ideology: that the state of the social institution of the prison is due to the “nature” of the people who administer it, or the “nature” of the people who populate it, or both. That is, a major contributing cause to despicable conditions, violence, brutality, dehumanization and degradation existing with any prison can be traced to some innate or acquired characteristic of the correctional and inmate population.

The dispositional hypothesis has been embraced by the proponents of the prison *status quo* (blaming conditions on the evil in the prisoners), as well as by its critics (attributing the evil to guards and staff with their evil motives and deficient personality structures). A critical

evaluation of the dispositional hypothesis cannot be made directly through observation in existing prison settings, since such naturalistic observation necessarily confounds the acute effects of the environment with the chronic characteristics of the inmate and guard populations. To separate the effects of the prison environment per se from those attributable to a priori dispositions of its inhabitants requires a research strategy in which a "new" prison is constructed, comparable in its fundamental social-psychological milieu to existing prison systems, but entirely populated by individuals who are undifferentiated in all essential dimensions from the rest of society.

Experimental Design

Interpersonal dynamics in a prison environment are to be studied experimentally by designing a functional simulation of a prison in which subjects role-play prisoners and guards for an extended period of time. To assess the power of the social forces on the emergent behavior in this situation, alternative explanations in terms of pre-existing dispositions are to be eliminated through subject selection. A homogeneous, "normal" sample is to be chosen after extensive interviewing and diagnostic testing of a large group of volunteer male college students. Half of the subjects are to be randomly assigned to role-play prison guards for eight hours each day, while the others role-play prisoners incarcerated for nearly one full week. Neither group will receive any specific training in these roles. The primary investigator will role-play the prison warden, and consultants from the real prison population (both prisoners and prison officials) will be recruited to assist in the planning and implementation of the prison environment.

Continuous, direct observation of behavioral interactions will be supplemented by video-taped recording, questionnaires, self-report scales and interviews. All these data sources are likely to converge on the conclusion that this simulated prison will develop into a psychologically compelling prison environment.

Significance and Contributions

The authors believe that this demonstration will reveal new dimensions in the social psychology of imprisonment worth pursuing in future research. In addition, this research will provide a paradigm and information base for studying alternatives to existing guard training, as well as for questioning the basic operating principles on which penal institutions rest. There is great need today for prison reforms that recognize the dignity and humanity of both prisoners and guards who are constantly forced into one of the most intimate and potentially deadly encounters known to man. This study has the potential

to inform those reforms.

Works Cited

Small World

Background

Rationale

Experimental Design

Significance and Contributions

Works Cited

Travers and Milgram 1969

5.3 *Game-Master Interventions*

Possible Mod: DSMIV compromise

If the game master chooses, he or she may introduce or encourage the development of a compromise position like that found in the DSM-IV:

... although this manual provides a classification of mental disorders, it must be admitted that no definition adequately specifies precise boundaries for the concept of 'mental disorder.' The concept of mental disorder, like many other concepts in medicine and science, lacks a consistent operational definition that covers all situations. All medical conditions are defined on various levels of abstraction—for example, structural pathology (e.g., ulcerative colitis), symptom presentation (e.g., migraine), deviance from a physiological norm (e.g., hypertension), and etiology (e.g., pneumococcal pneumonia). Mental disorders have also been defined by a variety of concepts (e.g., distress, dyscontrol, disadvantage, disability, inflexibility, irrationality, syndromal pattern, etiology, and statistical deviation). Each is a useful indicator for a mental disorder, but none is equivalent to the concept, and different situations call for different definitions."

With something like the 7 part definition included therein:

Features

A a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual

B is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom

C must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one

D a manifestation of a behavioral, psychological, or biological dysfunction in the individual

E neither deviant behavior (e.g., political, religious, or sexual) nor conflicts that are primarily between the individual and society are

mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual

Other Considerations

F no definition adequately specifies precise boundaries for the concept of "mental disorder"

G the concept of mental disorder (like many other concepts in medicine and science) lacks a consistent operational definition that covers all situations

Poor Presidential tone

Not grasping importance of DSMIII

In my experience, and perhaps it is because I'm a philosopher teaching philosophy students, students tend towards the radical positions of Albee and Szasz in a way no real, practicing psychologist or psychiatrist would. If this occurs, the game master ought to intervene to help students understand that with the advent of health insurance, if it can't be labeled, you probably won't get paid to treat it.

Failed Research cycle

Possible Mod: Voting

I've left the issue of membership in the APA, and the right to vote on many of the main issues, intentionally vague. This is to allow for some flexibility for the instructor. The issue of who can practice mental health treatment is a game issue, realized in competing proposals in 1973. As a corollary then, the issue of membership in the APA may be brought forward. This can also play out as one of the causes of the APA's 'fission' that may occur starting in 1975.

Kameny, Gittings and Gold are not members of the APA at the beginning of the game. If the gamemaster wants everyone to vote, he or she should make clear from the beginning that they are considered to be members of the APA with full rights to vote.

A character does *NOT* need to be a member of the APA to earn credibility. He or she *MUST* be a member of the APA to 'spend' that credibility in the final vote. It follows that non-members must entrust their credibility with a member of the APA so that it can be counted.

6 Debriefing

6.1 Exiting the game

6.2 What really happened

Actual presidents (Psychological association):

Year	President
1969	George A. Miller, PhD
1970	George W. Albee, PhD
1971	Kenneth B. Clark, PhD
	1st African-American, only president born in the Panama Canal zone
1972	Anne Anastasi, PhD
	1st woman since 1921
1973	Leona E. Tyler, PhD
	Received PhD at youngest age (21) of any APA President
1974	Albert Bandura, PhD
	3rd Canadian
1975	Donald T. Campbell, PhD

Table 6.1: Real APA (psychological) Presidents

Hogan 1994

6.3 After this era

Margaret Mead debunked

Ebbinghaus' experiments replica table?

Murre and Dros 2015

Abortion

"APA position statement on abortion" 1993 [Anonymous:1993bn][Anonymous:1993jx] [Anonymous:1979kt][Anonymous:197obi] [Anonymous:1967hr]

The DSM-V Controversy

These were collected in 2009. The issue is ongoing.

NIMH Rejection: <http://www.newyorker.com/online/blogs/elements/2013/05/the-new-criteria-for-mental-disorders.html>

The D.S.M. And the Nature of Disease <http://www.newyorker.com/online/blogs/elements/2013/04/the-dsm-and-the-nature-of-disease.html>

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Kal, E. F. (2008). "DSM-V Compromise Proposed." Psychiatr News 43(21): 23-a-23-a.

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Spitzer, R. L. (2008). "DSM-V: Open and Transparent?" Psychiatr News 43(14): 26-26.

Sunderland, T. and American Psychiatric Association. (2007). Diagnostic issues in dementia : advancing the research agenda for DSM-V. Arlington, VA, American Psychiatric Association.

Widiger, T. A. (2006). Dimensional models of personality disorders : refining the research agenda for DSM-V. Washington, D.C., American Psychiatric Association.

Spitzer 2003 Controversy

In 2003, Spitzer said that it is possible to change one's sexual orientation:

Spitzer, R. (2003). "Can some gay men and lesbians change their sexual orientation? 200 participants reporting a change from homosexual to heterosexual orientation." *Archives of Sexual Behavior* 32(5): 403–417.

It caused an uproar. See:

Epstein, R. (2003). "Am I Anti-Gay? You be the judge. A letter from the editor in chief. ." *Psychology Today* Jan/Feb.

Hausman, K. (2001). "Furor Erupts Over Study On Sexual Orientation." *Psychiatr News* 36(13): 20–34.

Nicolosi, J. (2007, 4/30/2007). "Why I Am Not a Neutral Therapist." Retrieved 10/24/2008, from <http://www.narth.com/docs/notneutral.html>.

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Appendices

A *Real-world papers*

Mental rotation



Mental Rotation of Three-Dimensional Objects

Author(s): Roger N. Shepard and Jacqueline Metzler

Source: *Science*, New Series, Vol. 171, No. 3972 (Feb. 19, 1971), pp. 701-703

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solution is shown for day 1 only (16), because, even though the intake was relatively small (mean intake, 98 ml), the cats became ill. Two drank sucrose almost continuously up to the criterion and subsequently vomited and developed diarrhea. The others did not vomit but developed diarrhea. The illness apparently led to conditioned aversion. After a week's rest, cats rejected 0.375M sucrose (mean intake, 18 ml). This same thing happened with 0.5M sucrose solution and 24-hour intake.

Frings's (9) finding that sucrose in dilute milk (one part milk to four parts water) is preferred by cats fits in well with the result presented here. Mean sodium and chlorine content for whole milk so diluted would approximate 0.006M NaCl (17). The exact whole-mouth salivary NaCl concentration for the cat is not known, but it must fall between 0.01M and 0.16M NaCl (18). For adapting concentrations in this range, electrophysiological data (3) suggest that the 0.006M NaCl in the milk used by Frings would at least partially suppress the water-after-NaCl response.

The taste of water has been widely ignored in behavioral testing. It is now clear that water should be regarded not as a neutral solvent but rather as a taste stimulus itself. The implications for receptor mechanisms are still unclear. Water appears to produce some responses by removing other stimuli (2), but it may also stimulate receptors directly [see (19) for a review of various structural models of water]. Nevertheless, electrophysiological studies can suggest how water tastes can be manipulated to assess the taste of any given substance in water.

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- The sensitivities to NaCl, QHCl, sucrose, and HCl appear to be independently associated in accordance with the random distribution hypothesis of M. Frank and C. Pfaffmann [*Science* **164**, 1183 (1969)]. In addition, the four contingencies producing water responses also appear to be independently associated in accordance with this hypothesis.
- The correlation coefficient for water-after-NaCl responses and NaCl responses was -0.83 ($P < .005$). Only those fibers were included for which at least one response met the criterion. Previous reports of a negative correlation between water responses and NaCl responses [Cohen et al. (2); J. Nagaki, S. Yamashita, M. Sato, *Jap. J. Physiol.* **14**, 67 (1964)] probably reflect the negative correlation between water-after-NaCl and NaCl responses since the rinse was Ringer solution. The correlation coefficients for NaCl and water-after-QHCl, water-after-sucrose, and water-after-HCl are -0.65 ($P < .05$), -0.54 ($P > .05$), and -0.28 ($P > .2$), respectively.
- We thank M. Dvorak and O. Stark of the Food Sciences Laboratory at the Natick Army Laboratories for analyses of the atomic absorption spectra of tap and distilled water samples. Samples were analyzed for Na, K, Ca, Mg, and halide. Tap water checked weekly for 2 months remained relatively constant with mean levels of $9.6 \times 10^{-4}M$ Na, $6.8 \times 10^{-5}M$ K, $7.1 \times 10^{-4}M$ Ca, $2.2 \times 10^{-4}M$ Mg, and $1.0 \times 10^{-3}M$ halide (predominantly Cl). Distilled water contained $8.7 \times 10^{-7}M$ Na, $5.1 \times 10^{-6}M$ K, $2.5 \times 10^{-6}M$ Ca, and $4.1 \times 10^{-7}M$ Mg.
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- Electrophysiological data and preliminary behavioral data were obtained at Brown University where work was supported in part by a PHS predoctoral fellowship to L.M.B. and NSF grants G-14332 (to C. Pfaffmann) and GB-2754 (to C. Pfaffmann and L.M.B.). Final behavioral data were collected at the U.S. Army Natick Laboratories. We thank R. L. Gentile, J. C. Stevens, L. E. Marks, and W. S. Cain for valuable comments on the manuscript.

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Mental Rotation of Three-Dimensional Objects

Abstract. The time required to recognize that two perspective drawings portray objects of the same three-dimensional shape is found to be (i) a linearly increasing function of the angular difference in the portrayed orientations of the two objects and (ii) no shorter for differences corresponding simply to a rigid rotation of one of the two-dimensional drawings in its own picture plane than for differences corresponding to a rotation of the three-dimensional object in depth.

Human subjects are often able to determine that two two-dimensional pictures portray objects of the same three-dimensional shape even though the objects are depicted in very different orientations. The experiment reported here was designed to measure the time that subjects require to determine such identity of shape as a function of the angular difference in the portrayed orientations of the two three-dimensional objects.

This angular difference was produced either by a rigid rotation of one of two identical pictures in its own picture plane or by a much more complex, nonrigid transformation, of one of the pictures, that corresponds to a (rigid) rotation of the three-dimensional object in depth.

This reaction time is found (i) to

increase linearly with the angular difference in portrayed orientation and (ii) to be no longer for a rotation in depth than for a rotation merely in the picture plane. These findings appear to place rather severe constraints on possible explanations of how subjects go about determining identity of shape of differently oriented objects. They are, however, consistent with an explanation suggested by the subjects themselves. Although introspective reports must be interpreted with caution, all subjects claimed (i) that to make the required comparison they first had to imagine one object as rotated into the same orientation as the other and that they could carry out this "mental rotation" at no greater than a certain limiting rate; and (ii) that, since they perceived the two-dimensional pictures as objects

in three-dimensional space, they could imagine the rotation around whichever axis was required with equal ease.

In the experiment each of eight adult subjects was presented with 1600 pairs of perspective line drawings. For each pair the subject was asked to pull a right-hand lever as soon as he determined that the two drawings depicted objects of different three-dimensional shapes. According to a random sequence, in half of the pairs (the "same" pairs) the two objects could be rotated into congruence with each other (as in Fig. 1, A and B), and in the other half (the "different" pairs) the two objects differed by a reflection as well as a rotation and could not be rotated into congruence (as in Fig. 1C).

The choice of objects that were mirror images or "isomers" of each other for the "different" pairs was intended to prevent subjects from discovering

some distinctive feature possessed by only one of the two objects and thereby reaching a decision of noncongruence without actually having to carry out any mental rotation. As a further precaution, the ten different three-dimensional objects depicted in the various perspective drawings were chosen to be relatively unfamiliar and meaningless in overall three-dimensional shape.

Each object consisted of ten solid cubes attached face-to-face to form a rigid armlike structure with exactly three right-angled "elbows" (see Fig. 1). The set of all ten shapes included two subsets of five: within either subset, no shape could be transformed into itself or any other by any reflection or rotation (short of 360°). However, each shape in either subset was the mirror image of one shape in the other subset, as required for the construction of the "different" pairs.

For each of the ten objects, 18 different perspective projections—corresponding to one complete turn around the vertical axis by 20° steps—were generated by digital computer and associated graphical output (1). Seven of the 18 perspective views of each object were then selected so as (i) to avoid any views in which some part of the object was wholly occluded by another part and yet (ii) to permit the construction of two pairs that differed in orientation by each possible angle, in 20° steps, from 0° to 180°. These 70 line drawings were then reproduced by photo-offset process and were attached to cards in pairs for presentation to the subjects.

Half of the "same" pairs (the "depth" pairs) represented two objects that differed by some multiple of a 20° rotation about a vertical axis (Fig. 1B). For each of these pairs, copies of two appropriately different perspective views were simply attached to the cards in the orientation in which they were originally generated. The other half of the "same" pairs (the "picture-plane" pairs) represented two objects that differed by some multiple of a 20° rotation in the plane of the drawings themselves (Fig. 1A). For each of these, one of the seven perspective views was selected for each object and two copies of this picture were attached to the card in appropriately different orientations. Altogether, the 1600 pairs presented to each subject included 800 "same" pairs, which consisted of 400 unique pairs (20 "depth" and 20 "picture-plane" pairs at each of the ten angular differences from 0° to 180°), each of which was

presented twice. The remaining 800 pairs, randomly intermixed with these, consisted of 400 unique "different" pairs, each of which (again) was presented twice. Each of these "different" pairs corresponded to one "same" pair (of either the "depth" or "picture-plane" variety) in which, however, one of the three-dimensional objects had been reflected about some plane in three-dimensional space. Thus the two objects in each "different" pair differed, in general, by both a reflection and a rotation.

The 1600 pairs were grouped into blocks of not more than 200 and presented over eight to ten 1-hour sessions (depending upon the subject). Also, although it is only of incidental interest here, each such block of presentations was either "pure," in that all pairs involved rotations of the same type ("depth" or "picture-plane"), or "mixed," in that the two types of rota-

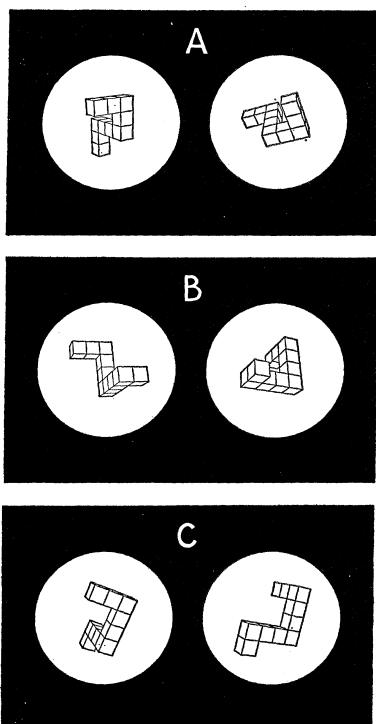


Fig. 1. Examples of pairs of perspective line drawings presented to the subjects. (A) A "same" pair, which differs by an 80° rotation in the picture plane; (B) a "same" pair, which differs by an 80° rotation in depth; and (C) a "different" pair, which cannot be brought into congruence by any rotation.

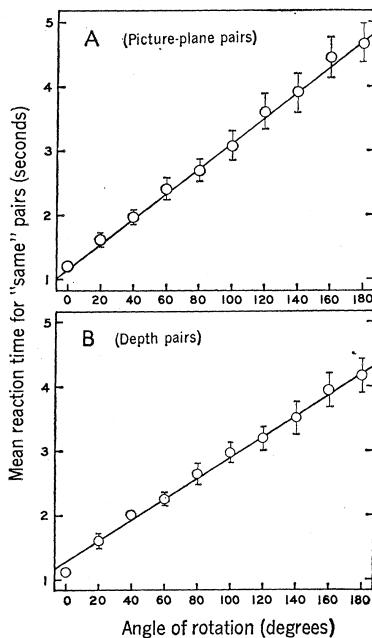


Fig. 2. Mean reaction times to two perspective line drawings portraying objects of the same three-dimensional shape. Times are plotted as a function of angular difference in portrayed orientation: (A) for pairs differing by a rotation in the picture plane only; and (B) for pairs differing by a rotation in depth. (The centers of the circles indicate the means and, when they extend far enough to show outside these circles, the vertical bars around each circle indicate a conservative estimate of the standard error of that mean based on the distribution of the eight component means contributed by the individual subjects.)

tion were randomly intermixed within the same block.

Each trial began with a warning tone, which was followed half a second later by the presentation of a stimulus pair and the simultaneous onset of a timer. The lever-pulling response stopped the timer, recorded the subject's reaction time and terminated the visual display. The line drawings, which averaged between 4 and 5 cm in maximum linear extent, appeared at a viewing distance of about 60 cm. They were positioned, with a center-to-center spacing that subtended a visual angle of 9°, in two circular apertures in a vertical black surface (see Fig. 1, A to C).

The subjects were instructed to respond as quickly as possible while keeping errors to a minimum. On the average only 3.2 percent of the responses were incorrect (ranging from 0.6 to 5.7 percent for individual subjects). The reaction-time data presented below include only the 96.8 percent correct responses. However, the data for the incorrect responses exhibit a similar pattern.

In Fig. 2, the overall means of the reaction times as a function of angular difference in orientation for all correct (right-hand) responses to "same" pairs are plotted separately for the pairs differing by a rotation in the picture plane (Fig. 2A) and for the pairs differing by a rotation in depth (Fig. 2B). In both cases, reaction time is a strikingly linear function of the angular difference between the two three-dimensional objects portrayed. The mean reaction times for individual subjects increased from a value of about 1 second at 0° of rotation for all subjects to values ranging from 4 to 6 seconds at 180° of rotation, depending upon the particular individual. Moreover, despite such variations in slope, the linearity of the function is clearly evident when the data are plotted separately for individual three-dimensional objects or for individual subjects. Polynomial regression lines were computed separately for each subject under each type of rotation. In all 16 cases the functions were found to have a highly significant linear component ($P < .001$) when tested against deviations from linearity. No significant quadratic or higher-order effects were found ($P > .05$, in all cases).

The angle through which different three-dimensional shapes must be rotated to achieve congruence is not, of course, defined. Therefore, a function like those plotted in Fig. 2 cannot be constructed in any straightforward man-

ner for the "different" pairs. The overall mean reaction time for these pairs was found, however, to be 3.8 seconds—nearly a second longer than the corresponding overall means for the "same" pairs. (In the postexperimental interview, the subjects typically reported that they attempted to rotate one end of one object into congruence with the corresponding end of the other object; they discovered that the two objects were *different* when, after this "rotation," the two free ends still remained noncongruent.)

Not only are the two functions shown in Fig. 2 both linear but they are very similar to each other with respect to intercept and slope. Indeed, for the larger angular differences the reaction times were, if anything, somewhat shorter for rotation in depth than for rotation in the picture plane. However, since this small difference is either absent or reversed in four of the eight subjects, it is of doubtful significance. The determination of identity of shape may therefore be based, in both cases, upon a process of the same general kind. If we can describe this process as some sort of "mental rotation in three-dimensional space," then the slope of the obtained functions indicates that the average rate at which these particular objects can be thus "rotated" is roughly 60° per second.

Of course the plotted reaction times necessarily include any times taken by the subjects to decide how to process

the pictures in each presented pair as well as the time taken actually to carry out the process, once it was chosen. However, even for these highly practiced subjects, the reaction times were still linear and were no more than 20 percent lower in the "pure" blocks of presentations (in which the subjects knew both the axis and the direction of the required rotation in advance of each presentation) than in the "mixed" blocks (in which the axis of rotation was unpredictable). Tentatively, this suggests that 80 percent of a typical one of these reaction times may represent some such process as "mental rotation" itself, rather than a preliminary process of preparation or search. Nevertheless, in further research now underway, we are seeking clarification of this point and others.

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References and Notes

1. Mrs. Jih-Jie Chang of the Bell Telephone Laboratories generated the 180 perspective projections for us by means of the Bell Laboratories' Stromberg-Carlson 4020 microfilm recorder and the computer program for constructing such projections developed there by A. M. Noll. See, for example, A. M. Noll, *Computers Automation* 14, 20 (1965).
2. We thank Mrs. Chang [see (1)]; and we also thank Dr. J. D. Elashoff for her suggestions concerning the statistical analyses. Assistance in the computer graphics was provided by the Bell Telephone Laboratories. Supported by NSF grant GS-2283 to R.N.S.

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Neural Pathways Associated with Hypothalamically Elicited Attack Behavior in Cats

Abstract. Small electrolytic lesions were made in cats through electrodes, which, when stimulated, elicited either quiet biting attack or affective paw strike attack upon rats. The Nauta method for impregnating degenerating axoplasm was used to reveal that degeneration resulting from lesions at quiet attack sites followed largely along the course of the medial forebrain bundle, while the degeneration after lesions of affective attack sites was concentrated more heavily in the periventricular system.

Although it is now firmly established that the hypothalamus is intimately involved in the elaboration of aggressive behavior (1), very little is known about the neural pathways through which such behavior is mediated. In an attempt to trace out the circuits which may be associated with a cat's attack upon a rat we have employed neuroanatomic techniques in conjunction with stimulation experiments.

The development of silver stains

capable of selectively impregnating degenerating axoplasm by Nauta (2) has dramatically increased the ability of neuroanatomists to determine the polarity of conduction and the areas of termination of finely myelinated and unmyelinated fiber systems. The first step in tracing out degeneration by this technique consists in destroying a small amount of neural tissue in a selected anatomic target area and then permitting the animal to survive for a

Adjustment of Homosexual and Heterosexual Women

Adjustment of Homosexual and Heterosexual Women

By MARVIN SIEGELMAN

The traditional psychiatric belief that homosexual women are emotionally unstable (3, 10, 21) has been challenged by Armon (1), Freedman (11), and Hopkins (13). The contention that such women are neurotic has typically been voiced by clinicians reporting on their own therapy patients (3, 10, 19). One exception is the recent psychometric investigation by Kenyon (15) who studied a non-clinical group of English homosexual women, and concluded that they were higher in neuroticism than a comparison group of heterosexuals. In contrast to the 'illness' notion of homosexuality, the authors of three psychometric studies (1, 11, 13) dealing with non-clinical homosexuals and heterosexuals reported that heterosexual women were not better adjusted than homosexuals. The paucity of research in this area is exemplified by the fact that a total of only four studies, noted above, have been found to date by this author. Even the clinical literature, which is replete with case studies and therapeutic discussions concerning male homosexuality, is strikingly sparse in the area of lesbianism (19). The present study was therefore conducted to add to the small body of data we now have on the adjustment of homosexual versus heterosexual women.

METHOD

Subjects

The 84 homosexual women in the present study were not a random or representative sample, but they did not represent a clearly clinical group, such as psychiatric patients. Forty-six homosexuals were members of the New York branch of the Daughters of Bilitis (D.O.B.) organization, formed by and for lesbians. The officers of D.O.B. sent out the author's questionnaire to the D.O.B. members, and they returned them anonymously to the author; of 75 questionnaires sent out, 46 were

returned. The remaining 38 homosexuals returned questionnaires they requested from the manager of a homophile bookstore in Greenwich Village, who assisted the author; a letter had been placed in the window of the bookstore asking for volunteers. Fifty subjects requested the forms, and 38 were returned. The percentage of return was 61.3 for the D.O.B. members, 76 for the Village bookstore, and 67.2 for both sources. The occupational status for the majority of the homosexuals could be classified as professional; in addition to 11 teachers from all educational levels, and 13 graduate and undergraduate college students, there were registered nurses, social workers, editors, a statistician, a librarian, a psychiatrist, a psychologist, etc. The combining of the D.O.B. and the bookstore subjects was justified in that *t* test comparisons between the two groups for all adjustment variables, to be reported on below, showed no significant differences. The 84 homosexuals described themselves as either exclusively homosexual (70.2 per cent) or predominantly homosexual with some heterosexual tendencies (29.8 per cent). Eighty-seven per cent of the homosexuals were not in therapy. Their mean age was 30.3 (S.D. = 9.15), and they had completed an average of 15.5 years of education (S.D. = 2.47). The mean education of their parents was 11.8 years (S.D. = 4.25) for fathers and 12.1 years (S.D. = 3.21) for mothers.

The 133 heterosexual subjects consisted of undergraduate ($N = 49$) and graduate ($N = 84$) students at The City College of New York, who described themselves as exclusively heterosexual. The graduates and undergraduates represented all areas of concentration. The authors administered the questionnaires to this group during a regular class period. Ninety-three per cent of the heterosexuals were not in therapy. The mean age was 25.0 (S.D. = 7.44),

and they had completed an average of 16·5 years of education (S.D. = 4·81). The average education of their parents was 12·0 years (S.D. = 4·01) for fathers, and 11·9 years (S.D. = 6·36) for mothers.

The homosexuals did not differ significantly from the heterosexuals on education ($t = 1·66$), education of father ($t = .48$), education of mother ($t = .26$), and Schachter (17) sibling position code ($t = .48$). The two groups were different in age ($t = 4·68$, $p < .01$).

Instruments

In order to avoid a too narrow conception of adjustment, several instruments were used, which measured 12 dimensions related to mental health. The Scheier and Cattell (18) Neuroticism Scale Questionnaire (NSQ) examined four factors, Tendermindedness (I), Depression (F), Submission (E), and Anxiety (Anx.), as well as overall Neuroticism (Total NSQ). Eight additional scales measured Alienation and Trust (20), Goal-Directedness, Self-Acceptance, and Sense of Self (7), Dependency (5), Nurturance (12), and Neuroticism (16). The Crowne and Marlow (6) Social Desirability Scale (SDS) was also included in order to measure the possible contamination of giving socially desirable responses on the various adjustment measures. The correlations between the SDS and the adjustment variables for the homosexuals (noted first) and the heterosexuals (noted second) were: Tendermindedness = -·06, -·08; Depressed = ·23, ·15; Submissive = ·27, ·21; Anxiety = -·27, -·35; Total NSQ = ·10, -·03; Alienation = -·01, -·14; Trust = ·19, ·20; Goal-Directedness = ·31, ·12; Self-Accepting = ·17, -·01; Sense of Self = ·35, -·07; Dependence = -·33, -·31; Nurturance = ·17, -·07; Neuroticism = -·28, -·25. On the SDS the homosexuals indicated less of a tendency to give socially desirable responses than the heterosexuals (homosexual M = 12·3, S.D. = 5·53; heterosexual M = 14·2, S.D. = 5·65; $t = 2·47$, $p < .05$).

Analysis of covariance was used to control for age and SDS responses. In addition, partial correlations, with age and SDS responses partialled out, were computed to indicate the

amount of association between the variables and the groups (4).

RESULTS

Table I indicates that the homosexuals, in contrast to the heterosexuals, scored lower on Depression and Total NSQ, and they were higher on Goal-Direction and Self-Acceptance. The analysis of covariance results were essentially the same as the t test findings. Dignan (7) included Goal-Directed and Self-Acceptance in her 'ego-Identity' dimension based on the construct devised by Erikson (8). The association between groups and adjustment variables, as reflected in the partial correlations, were not impressive, accounting at best for only 9 per cent of the variance.

In addition to controlling for age by partial correlation and covariance statistics, the possible influence of age was estimated by calculating product-moment correlations between age and each adjustment factor. For the homosexuals there was a positive correlation between age and Alienation ($r = .22$) and Depression ($r = .22$), and a negative correlation with Dependency ($r = -.19$). There was a positive relationship, for heterosexuals, between age and Depression ($r = .28$) and Total NSQ ($r = .18$), and a negative association between age and Neuroticism ($r = -.21$). Age thus accounted for at most about 9 per cent of the variance in any adjustment factor, which would probably not effect the results very much.

NSQ data for a group of 393 presumably heterosexual females, comparable in age ($M = 31·0$) to the homosexual females reported in the present study ($M = 30·3$), was presented by Scheier and Cattell (18). The NSQ data noted for these 393 females was Tendermindedness $M = 12·2$, S.D. = 2·5; Depressed $M = 9·8$, S.D. = 2·8; Submissive $M = 13·3$, S.D. = 3·1; Anxiety $M = 9·8$, S.D. = 3·4; Total NSQ $M = 45·1$, S.D. = 7·1. The 84 homosexuals in the current research had higher scores on Tenderminded ($t = 2·21$, $p < .01$) and Dominance ($t = 5·45$, $p < .001$), and lower scores on Depression ($t = 2·15$, $p < .01$), than the 393 heterosexuals in the Scheier and Cattell report. These groups were not different on Anxiety and Total NSQ. In comparison to the

TABLE I
Comparisons of adjustment variable scores between homosexual and heterosexual females

Variables	N ^a		M		S.D.		t	P ^b	r _{12·3^c}
	Homo- sexual	Hetero- sexual	Homo- sexual	Hetero- sexual	Homo- sexual	Hetero- sexual			
NSQ									
Tenderminded	82	133	13·07	13·71	2·78	2·59	1·72	.2·10	.11
Depressed	82	133	8·84	8·92	3·31	3·40	1·16	.06	.04
Submissive	82	133	10·62	12·62	3·57	3·25	4·21***	15·78***	.24***
Anxious	82	133	10·80	11·43	3·74	3·53	1·23	.13	.08
Total NSQ	82	133	43·46	46·67	7·39	7·50	3·06*	7·48**	.19**
Ner-NSQ									
Alienated	84	130	14·48	14·23	4·87	4·66	.37	.40	.07
Trusting	84	130	15·46	15·65	4·90	4·75	.28	.14	.00
Goal-directed	84	130	9·71	32·35	6·28	6·02	5·10***	25·79***	.30***
Self-accepting	84	130	23·29	20·80	4·19	4·63	3·98***	15·27***	.23***
Sense of self	84	130	17·81	17·25	3·84	3·37	1·12	.83	.07
Dependent	84	130	15·70	16·49	5·61	5·95	.97	.12	.05
Nurturant	84	130	18·19	17·88	3·74	3·49	.62	2·26	.09
Neurotic	84	133	15·39	16·61	4·98	5·33	1·68	2·92	.11

* N differed for some variables because a few Ss did not complete all scales.

^a Analysis of covariance.

^b Partial correlation.

* .05, two-tailed.

** .01, two-tailed.

*** .001, two-tailed.

NSQ scores reported by Scheier and Cattell (18) for 315 neurotics, the 84 homosexuals in the current study had higher scores on Tendermindedness, Depression, Submission, and Anxiety, and they were not different on the Total NSQ factor.

DISCUSSION

When interpreting the results of the present study, one must of course recognize that both samples were select and clearly not representative of all heterosexual, or all homosexual, women. The data could be generalized, at best, only to women similar to those examined in the current research.

The failure to find female homosexuals more neurotic than female heterosexuals in the present study agrees with the reports of Armon (1), Freedman (11), and Hopkins (13). The NSQ findings in the current investigation were strikingly similar to the Cattell 16 PF data reported by Hopkins (13). The NSQ is part of the 16 PF and so the two can be directly compared. Hopkins noted, in agreement with the

present study, that her lesbian group was not different from her heterosexual sample on Tendermindedness, Depression, and two of the three factors comprising the Anxiety dimension, and that the lesbians were more dominant. On the Anxiety Factor differentiating the groups, the heterosexuals were more tense and excitable than the lesbians. Hopkins did not report a Total NSQ score. The willingness of the homosexuals to acknowledge deviation by joining a homophile organization (i.e. 23 of the 24 lesbians in the Hopkins study were members of the Minorities Research Group, and 46 of the 84 homosexuals in the present study belonged to the Daughters of Bilitis), and to volunteer information about themselves, may account in part for their high dominance and low anxiety scores.

The indications from the present data—weak in magnitude as they are—that the lesbians are better adjusted in some respects than the heterosexuals, has also been reported by Freedman (11) and by Hopkins (13). The psychoanalytic contention that female homosexuals have high

dependency needs (10) was not supported by Armon (1) nor by the present study, and strong independent tendencies have been found by Hopkins (13). Socardes (19) and Caprio (3) stated that female homosexuals had a deep sense of inferiority, but the results of the present study, as well as the findings of Freedman (11) and Hopkins (13) directly contradict this contention.

Both Freedman (11) in the United States and Kenyon (14) in England used the Eysenck Maudsley Personality Inventory (9), but their findings were conflicting. Although Kenyon found lesbians to score higher on Neuroticism ($M = 23.15$, S.D. = 12.28) than the heterosexual women ($M = 17.41$, S.D. = 9.6), his mean homosexual Neuroticism score was lower than the mean score of a mixed group of English university students ($M = 26.78$, S.D. = 9.28), and much lower than the average score of neurotics ($M = 31.95$, S.D. = 9.15), reported by Eysenck (9). Similarly, Kenyon did not indicate what average score was obtained by neurotics on the second test he used, the Cornell Medical Index Health Questionnaire (2) in contrast to his lesbian sample. Furthermore, the homosexual subjects in the Kenyon study included 43 women (34.9 per cent) who were either predominantly heterosexual (8.9 per cent), or bisexual (6.5 per cent) or more homosexual than heterosexual, but maintained a fair amount of heterosexual activity (19.5 per cent). These 43 women were rated between 1 and 4 on the Kinsey Scale by Kenyon (14). It was thus misleading to categorize the entire sample of 123 women as homosexual.

The need to sample a wider segment of the homosexual community is emphasized by the contradictory findings that emerge when contrasting samples are evaluated. An absence of differences in homosexual versus heterosexual adjustment is reported in most studies using non-clinical subjects. On the other hand, the writing of psychiatrists describing their patients, typically reflects the belief that homosexuals are seriously maladjusted. Although the findings of the present investigation refute the opinion that female homosexuals are more neurotic than female heterosexuals, additional studies with larger, more representative, samples, and diverse

methodologies must be conducted for a more adequate evaluation of this result.

SUMMARY

The adjustment of non-clinical homosexual women ($N = 84$) compared to heterosexuals ($N = 133$) was evaluated with the Scheier and Cattell Neuroticism Scale Questionnaire (NSQ) and eight additional factors selected from five scales. The NSQ results for homosexuals were also contrasted to the NSQ data from heterosexual women and neurotic women reported by Scheier and Cattell. The homosexuals were found to be as well adjusted as the heterosexuals. These findings were compared to four other psychometric studies involving non-clinical subjects.

ACKNOWLEDGEMENTS

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On being sane in insane places

On Being Sane In Insane Places

David L. Rosenhan*

How do we know precisely what constitutes “normality” or mental illness? Conventional wisdom suggests that specially trained professionals have the ability to make reasonably accurate diagnoses. In this research, however, David Rosenhan provides evidence to challenge this assumption. What is -- or is not -- “normal” may have much to do with the labels that are applied to people in particular settings.

If sanity and insanity exist, how shall we know them?

The question is neither capricious nor itself insane. However much we may be personally convinced that we can tell the normal from the abnormal, the evidence is simply not compelling. It is commonplace, for example, to read about murder trials wherein eminent psychiatrists for the defense are contradicted by equally eminent psychiatrists for the prosecution on the matter of the defendant's sanity. More generally, there are a great deal of conflicting data on the reliability, utility, and meaning of such terms as “sanity,” “insanity,” “mental illness,” and “schizophrenia.” Finally, as early as 1934, {Ruth} Benedict suggested that normality and abnormality are not universal.[\[1\]](#) What is viewed as normal in one culture may be seen as quite aberrant in another. Thus, notions of normality and abnormality may not be quite as accurate as people believe they are.

To raise questions regarding normality and abnormality is in no way to question the fact that some behaviors are deviant or odd. Murder is deviant. So, too, are hallucinations. Nor does raising such questions deny the existence of the personal anguish that is often associated with “mental illness.” Anxiety and depression exist. Psychological suffering exists. But normality and abnormality, sanity and insanity, and the diagnoses that flow from them may be less substantive than many believe them to be.

At its heart, the question of whether the sane can be distinguished from the insane (and whether degrees of insanity can be distinguished from each other) is a simple matter: Do the salient characteristics that lead to diagnoses reside in the patients themselves or in the environments and contexts in which observers find them? From Bleuler, through Kretschmer, through the formulators of the recently revised Diagnostic and Statistical Manual of the American Psychiatric Association, the belief has been strong that patients present symptoms, that those symptoms can be categorized, and, implicitly, that the sane are distinguishable from the insane. More recently, however, this belief has been questioned. Based in part on theoretical and anthropological considerations, but also on philosophical, legal, and therapeutic ones, the view has grown that psychological categorization of mental illness is useless at best and downright harmful, misleading, and pejorative at worst. Psychiatric diagnoses, in this view, are in the minds of observers and are not valid summaries of characteristics displayed by the observed.

Gains can be made in deciding which of these is more nearly accurate by getting normal people (that is, people who do not have, and have never suffered, symptoms of serious psychiatric disorders) admitted to psychiatric hospitals and then determining whether they were discovered to be sane and, if so, how. If the sanity of such pseudopatients were always detected, there would be prima

facie evidence that a sane individual can be distinguished from the insane context in which he is found. Normality (and presumably abnormality) is distinct enough that it can be recognized wherever it occurs, for it is carried within the person. If, on the other hand, the sanity of the pseudopatients were never discovered, serious difficulties would arise for those who support traditional modes of psychiatric diagnosis. Given that the hospital staff was not incompetent, that the pseudopatient had been behaving as sanely as he had been out of the hospital, and that it had never been previously suggested that he belonged in a psychiatric hospital, such an unlikely outcome would support the view that psychiatric diagnosis betrays little about the patient but much about the environment in which an observer finds him.

This article describes such an experiment. Eight sane people gained secret admission to 12 different hospitals. Their diagnostic experiences constitute the data of the first part of this article; the remainder is devoted to a description of their experiences in psychiatric institutions. Too few psychiatrists and psychologists, even those who have worked in such hospitals, know what the experience is like. They rarely talk about it with former patients, perhaps because they distrust information coming from the previously insane. Those who have worked in psychiatric hospitals are likely to have adapted so thoroughly to the settings that they are insensitive to the impact of that experience. And while there have been occasional reports of researchers who submitted themselves to psychiatric hospitalization, these researchers have commonly remained in the hospitals for short periods of time, often with the knowledge of the hospital staff. It is difficult to know the extent to which they were treated like patients or like research colleagues. Nevertheless, their reports about the inside of the psychiatric hospital have been valuable. This article extends those efforts.

PSEUDOPATIENTS AND THEIR SETTINGS

The eight pseudopatients were a varied group. One was a psychology graduate student in his 20's. The remaining seven were older and "established." Among them were three psychologists, a pediatrician, a psychiatrist, a painter, and a housewife. Three pseudopatients were women, five were men. All of them employed pseudonyms, lest their alleged diagnoses embarrass them later. Those who were in mental health professions alleged another occupation in order to avoid the special attentions that might be accorded by staff, as a matter of courtesy or caution, to ailing colleagues.[\[2\]](#) With the exception myself (I was the first pseudopatient and my presence was known to the hospital administration and chief psychologist and, so far as I can tell, to them alone), the presence of pseudopatients and the nature of the research program was not known to the hospital staffs.[\[3\]](#)

The settings are similarly varied. In order to generalize the findings, admission into a variety of hospitals was sought. The 12 hospitals in the sample were located in five different states on the East and West coasts. Some were old and shabby, some were quite new. Some had good staff-patient ratios, others were quite understaffed. Only one was a strict private hospital. All of the others were supported by state or federal funds or, in one instance, by university funds.

After calling the hospital for an appointment, the pseudopatient arrived at the admissions office complaining that he had been hearing voices. Asked what the voices said, he replied that they were often unclear, but as far as he could tell they said "empty," "hollow," and "thud." The voices were unfamiliar and were of the same sex as the pseudopatient. The choice of these symptoms was occasioned by their apparent similarity to existential symptoms. Such symptoms are alleged to arise

from painful concerns about the perceived meaninglessness of one's life. It is as if the hallucinating person were saying, "My life is empty and hollow." The choice of these symptoms was also determined by the absence of a single report of existential psychoses in the literature.

Beyond alleging the symptoms and falsifying name, vocation, and employment, no further alterations of person, history, or circumstances were made. The significant events of the pseudopatient's life history were presented as they had actually occurred. Relationships with parents and siblings, with spouse and children, with people at work and in school, consistent with the aforementioned exceptions, were described as they were or had been. Frustrations and upsets were described along with joys and satisfactions. These facts are important to remember. If anything, they strongly biased the subsequent results in favor of detecting insanity, since none of their histories or current behaviors were seriously pathological in any way.

Immediately upon admission to the psychiatric ward, the pseudopatient ceased simulating any symptoms of abnormality. In some cases, there was a brief period of mild nervousness and anxiety, since none of the pseudopatients really believed that they would be admitted so easily. Indeed, their shared fear was that they would be immediately exposed as frauds and greatly embarrassed. Moreover, many of them had never visited a psychiatric ward; even those who had, nevertheless had some genuine fears about what might happen to them. Their nervousness, then, was quite appropriate to the novelty of the hospital setting, and it abated rapidly.

Apart from that short-lived nervousness, the pseudopatient behaved on the ward as he "normally" behaved. The pseudopatient spoke to patients and staff as he might ordinarily. Because there is uncommonly little to do on a psychiatric ward, he attempted to engage others in conversation. When asked by staff how he was feeling, he indicated that he was fine, that he no longer experienced symptoms. He responded to instructions from attendants, to calls for medication (which was not swallowed), and to dining-hall instructions. Beyond such activities as were available to him on the admissions ward, he spent his time writing down his observations about the ward, its patients, and the staff. Initially these notes were written "secretly," but as it soon became clear that no one much cared, they were subsequently written on standard tablets of paper in such public places as the dayroom. No secret was made of these activities.

The pseudopatient, very much as a true psychiatric patient, entered a hospital with no foreknowledge of when he would be discharged. Each was told that he would have to get out by his own devices, essentially by convincing the staff that he was sane. The psychological stresses associated with hospitalization were considerable, and all but one of the pseudopatients desired to be discharged almost immediately after being admitted. They were, therefore, motivated not only to behave sanely, but to be paragons of cooperation. That their behavior was in no way disruptive is confirmed by nursing reports, which have been obtained on most of the patients. These reports uniformly indicate that the patients were "friendly," "cooperative," and "exhibited no abnormal indications."

THE NORMAL ARE NOT DETECTABLY SANE

Despite their public "show" of sanity, the pseudopatients were never detected. Admitted, except in one case, with a diagnosis of schizophrenia,[\[4\]](#) each was discharged with a diagnosis of

schizophrenia “in remission.” The label “in remission” should in no way be dismissed as a formality, for at no time during any hospitalization had any question been raised about any pseudopatient’s simulation. Nor are there any indications in the hospital records that the pseudopatient’s status was suspect. Rather, the evidence is strong that, once labeled schizophrenic, the pseudopatient was stuck with that label. If the pseudopatient was to be discharged, he must naturally be “in remission”; but he was not sane, nor, in the institution’s view, had he ever been sane.

The uniform failure to recognize sanity cannot be attributed to the quality of the hospitals, for, although there were considerable variations among them, several are considered excellent. Nor can it be alleged that there was simply not enough time to observe the pseudopatients. Length of hospitalization ranged from 7 to 52 days, with an average of 19 days. The pseudopatients were not, in fact, carefully observed, but this failure speaks more to traditions within psychiatric hospitals than to lack of opportunity.

Finally, it cannot be said that the failure to recognize the pseudopatients’ sanity was due to the fact that they were not behaving sanely. While there was clearly some tension present in all of them, their daily visitors could detect no serious behavioral consequences—nor, indeed, could other patients. It was quite common for the patients to “detect” the pseudopatient’s sanity. During the first three hospitalizations, when accurate counts were kept, 35 of a total of 118 patients on the admissions ward voiced their suspicions, some vigorously. “You’re not crazy. You’re a journalist, or a professor (referring to the continual note-taking). You’re checking up on the hospital.” While most of the patients were reassured by the pseudopatient’s insistence that he had been sick before he came in but was fine now, some continued to believe that the pseudopatient was sane throughout his hospitalization. The fact that the patients often recognized normality when staff did not raises important questions.

Failure to detect sanity during the course of hospitalization may be due to the fact that physicians operate with a strong bias toward what statisticians call the Type 2 error. This is to say that physicians are more inclined to call a healthy person sick (a false positive, Type 2) than a sick person healthy (a false negative, Type 1). The reasons for this are not hard to find: it is clearly more dangerous to misdiagnose illness than health. Better to err on the side of caution, to suspect illness even among the healthy.

But what holds for medicine does not hold equally well for psychiatry. Medical illnesses, while unfortunate, are not commonly pejorative. Psychiatric diagnoses, on the contrary, carry with them personal, legal, and social stigmas. It was therefore important to see whether the tendency toward diagnosing the sane insane could be reversed. The following experiment was arranged at a research and teaching hospital whose staff had heard these findings but doubted that such an error could occur in their hospital. The staff was informed that at some time during the following three months, one or more pseudopatients would attempt to be admitted into the psychiatric hospital. Each staff member was asked to rate each patient who presented himself at admissions or on the ward according to the likelihood that the patient was a pseudopatient. A 10-point scale was used, with a 1 and 2 reflecting high confidence that the patient was a pseudopatient.

Judgments were obtained on 193 patients who were admitted for psychiatric treatment. All staff who had had sustained contact with or primary responsibility for the patient – attendants, nurses,

psychiatrists, physicians, and psychologists – were asked to make judgments. Forty-one patients were alleged, with high confidence, to be pseudopatients by at least one member of the staff. Twenty-three were considered suspect by at least one psychiatrist. Nineteen were suspected by one psychiatrist and one other staff member. Actually, no genuine pseudopatient (at least from my group) presented himself during this period.

The experiment is instructive. It indicates that the tendency to designate sane people as insane can be reversed when the stakes (in this case, prestige and diagnostic acumen) are high. But what can be said of the 19 people who were suspected of being “sane” by one psychiatrist and another staff member? Were these people truly “sane” or was it rather the case that in the course of avoiding the Type 2 error the staff tended to make more errors of the first sort – calling the crazy “sane”? There is no way of knowing. But one thing is certain: any diagnostic process that lends itself too readily to massive errors of this sort cannot be a very reliable one.

THE STICKINESS OF PSYCHODIAGNOSTIC LABELS

Beyond the tendency to call the healthy sick – a tendency that accounts better for diagnostic behavior on admission than it does for such behavior after a lengthy period of exposure – the data speak to the massive role of labeling in psychiatric assessment. Having once been labeled schizophrenic, there is nothing the pseudopatient can do to overcome the tag. The tag profoundly colors others’ perceptions of him and his behavior.

From one viewpoint, these data are hardly surprising, for it has long been known that elements are given meaning by the context in which they occur. Gestalt psychology made the point vigorously, and Asch^[5] demonstrated that there are “central” personality traits (such as “warm” versus “cold”) which are so powerful that they markedly color the meaning of other information in forming an impression of a given personality. “Insane,” “schizophrenic,” “manic-depressive,” and “crazy” are probably among the most powerful of such central traits. Once a person is designated abnormal, all of his other behaviors and characteristics are colored by that label. Indeed, that label is so powerful that many of the pseudopatients’ normal behaviors were overlooked entirely or profoundly misinterpreted. Some examples may clarify this issue.

Earlier, I indicated that there were no changes in the pseudopatient’s personal history and current status beyond those of name, employment, and, where necessary, vocation. Otherwise, a veridical description of personal history and circumstances was offered. Those circumstances were not psychotic. How were they made consonant with the diagnosis modified in such a way as to bring them into accord with the circumstances of the pseudopatient’s life, as described by him?

As far as I can determine, diagnoses were in no way affected by the relative health of the circumstances of a pseudopatient’s life. Rather, the reverse occurred: the perception of his circumstances was shaped entirely by the diagnosis. A clear example of such translation is found in the case of a pseudopatient who had had a close relationship with his mother but was rather remote from his father during his early childhood. During adolescence and beyond, however, his father became a close friend, while his relationship with his mother cooled. His present relationship with his wife was characteristically close and warm. Apart from occasional angry exchanges, friction was minimal. The children had rarely been spanked. Surely there is nothing especially pathological about

such a history. Indeed, many readers may see a similar pattern in their own experiences, with no markedly deleterious consequences. Observe, however, how such a history was translated in the psychopathological context, this from the case summary prepared after the patient was discharged.

This white 39-year-old male . . . manifests a long history of considerable ambivalence in close relationships, which begins in early childhood. A warm relationship with his mother cools during his adolescence. A distant relationship with his father is described as becoming very intense. Affective stability is absent. His attempts to control emotionality with his wife and children are punctuated by angry outbursts and, in the case of the children, spankings. And while he says that he has several good friends, one senses considerable ambivalence embedded in those relationships also . . .

The facts of the case were unintentionally distorted by the staff to achieve consistency with a popular theory of the dynamics of a schizophrenic reaction. Nothing of an ambivalent nature had been described in relations with parents, spouse, or friends. To the extent that ambivalence could be inferred, it was probably not greater than is found in all human's relationships. It is true the pseudopatient's relationships with his parents changed over time, but in the ordinary context that would hardly be remarkable – indeed, it might very well be expected. Clearly, the meaning ascribed to his verbalizations (that is, ambivalence, affective instability) was determined by the diagnosis: schizophrenia. An entirely different meaning would have been ascribed if it were known that the man was “normal.”

All pseudopatients took extensive notes publicly. Under ordinary circumstances, such behavior would have raised questions in the minds of observers, as, in fact, it did among patients. Indeed, it seemed so certain that the notes would elicit suspicion that elaborate precautions were taken to remove them from the ward each day. But the precautions proved needless. The closest any staff member came to questioning those notes occurred when one pseudopatient asked his physician what kind of medication he was receiving and began to write down the response. “You needn’t write it,” he was told gently. “If you have trouble remembering, just ask me again.”

If no questions were asked of the pseudopatients, how was their writing interpreted? Nursing records for three patients indicate that the writing was seen as an aspect of their pathological behavior. “Patient engaged in writing behavior” was the daily nursing comment on one of the pseudopatients who was never questioned about his writing. Given that the patient is in the hospital, he must be psychologically disturbed. And given that he is disturbed, continuous writing must be behavioral manifestation of that disturbance, perhaps a subset of the compulsive behaviors that are sometimes correlated with schizophrenia.

One tacit characteristic of psychiatric diagnosis is that it locates the sources of aberration within the individual and only rarely within the complex of stimuli that surrounds him. Consequently, behaviors that are stimulated by the environment are commonly misattributed to the patient's disorder. For example, one kindly nurse found a pseudopatient pacing the long hospital corridors. “Nervous, Mr. X?” she asked. “No, bored,” he said.

The notes kept by pseudopatients are full of patient behaviors that were misinterpreted by well-intentioned staff. Often enough, a patient would go “berserk” because he had, wittingly or

unwittingly, been mistreated by, say, an attendant. A nurse coming upon the scene would rarely inquire even cursorily into the environmental stimuli of the patient's behavior. Rather, she assumed that his upset derived from his pathology, not from his present interactions with other staff members. Occasionally, the staff might assume that the patient's family (especially when they had recently visited) or other patients had stimulated the outburst. But never were the staff found to assume that one of themselves or the structure of the hospital had anything to do with a patient's behavior. One psychiatrist pointed to a group of patients who were sitting outside the cafeteria entrance half an hour before lunchtime. To a group of young residents he indicated that such behavior was characteristic of the oral-acquisitive nature of the syndrome. It seemed not to occur to him that there were very few things to anticipate in a psychiatric hospital besides eating.

A psychiatric label has a life and an influence of its own. Once the impression has been formed that the patient is schizophrenic, the expectation is that he will continue to be schizophrenic. When a sufficient amount of time has passed, during which the patient has done nothing bizarre, he is considered to be in remission and available for discharge. But the label endures beyond discharge, with the unconfirmed expectation that he will behave as a schizophrenic again. Such labels, conferred by mental health professionals, are as influential on the patient as they are on his relatives and friends, and it should not surprise anyone that the diagnosis acts on all of them as a self-fulfilling prophecy. Eventually, the patient himself accepts the diagnosis, with all of its surplus meanings and expectations, and behaves accordingly.

The inferences to be made from these matters are quite simple. Much as Zigler and Phillips have demonstrated that there is enormous overlap in the symptoms presented by patients who have been variously diagnosed,[\[6\]](#) so there is enormous overlap in the behaviors of the sane and the insane. The sane are not "sane" all of the time. We lose our tempers "for no good reason." We are occasionally depressed or anxious, again for no good reason. And we may find it difficult to get along with one or another person – again for no reason that we can specify. Similarly, the insane are not always insane. Indeed, it was the impression of the pseudopatients while living with them that they were sane for long periods of time – that the bizarre behaviors upon which their diagnoses were allegedly predicated constituted only a small fraction of their total behavior. If it makes no sense to label ourselves permanently depressed on the basis of an occasional depression, then it takes better evidence than is presently available to label all patients insane or schizophrenic on the basis of bizarre behaviors or cognitions. It seems more useful, as Mischel[\[7\]](#) has pointed out, to limit our discussions to behaviors the stimuli that provoke them, and their correlates.

It is not known why powerful impressions of personality traits, such as "crazy" or "insane," arise. Conceivably, when the origins of and stimuli that give rise to a behavior are remote or unknown, or when the behavior strikes us as immutable, trait labels regarding the behavior arise. When, on the other hand, the origins and stimuli are known and available, discourse is limited to the behavior itself. Thus, I may hallucinate because I am sleeping, or I may hallucinate because I have ingested a peculiar drug. These are termed sleep-induced hallucinations, or dreams, and drug-induced hallucinations, respectively. But when the stimuli to my hallucinations are unknown, that is called craziness, or schizophrenia –as if that inference were somehow as illuminating as the others.

THE EXPERIENCE OF PSYCHIATRIC HOSPITALIZATION

The term “mental illness” is of recent origin. It was coined by people who were humane in their inclinations and who wanted very much to raise the station of (and the public’s sympathies toward) the psychologically disturbed from that of witches and “crazies” to one that was akin to the physically ill. And they were at least partially successful, for the treatment of the mentally ill has improved considerably over the years. But while treatment has improved, it is doubtful that people really regard the mentally ill in the same way that they view the physically ill. A broken leg is something one recovers from, but mental illness allegedly endures forever. A broken leg does not threaten the observer, but a crazy schizophrenic? There is by now a host of evidence that attitudes toward the mentally ill are characterized by fear, hostility, aloofness, suspicion, and dread. The mentally ill are society’s lepers.

That such attitudes infect the general population is perhaps not surprising, only upsetting. But that they affect the professionals – attendants, nurses, physicians, psychologists and social workers – who treat and deal with the mentally ill is more disconcerting, both because such attitudes are self-evidently pernicious and because they are unwitting. Most mental health professionals would insist that they are sympathetic toward the mentally ill, that they are neither avoidant nor hostile. But it is more likely that an exquisite ambivalence characterizes their relations with psychiatric patients, such that their avowed impulses are only part of their entire attitude. Negative attitudes are there too and can easily be detected. Such attitudes should not surprise us. They are the natural offspring of the labels patients wear and the places in which they are found.

Consider the structure of the typical psychiatric hospital. Staff and patients are strictly segregated. Staff have their own living space, including their dining facilities, bathrooms, and assembly places. The glassed quarters that contain the professional staff, which the pseudopatients came to call “the cage,” sit out on every dayroom. The staff emerge primarily for care-taking purposes – to give medication, to conduct therapy or group meeting, to instruct or reprimand a patient. Otherwise, staff keep to themselves, almost as if the disorder that afflicts their charges is somehow catching.

So much is patient-staff segregation the rule that, for four public hospitals in which an attempt was made to measure the degree to which staff and patients mingle, it was necessary to use “time out of the staff cage” as the operational measure. While it was not the case that all time spent out of the cage was spent mingling with patients (attendants, for example, would occasionally emerge to watch television in the dayroom), it was the only way in which one could gather reliable data on time for measuring.

The average amount of time spent by attendants outside of the cage was 11.3 percent (range, 3 to 52 percent). This figure does not represent only time spent mingling with patients, but also includes time spent on such chores as folding laundry, supervising patients while they shave, directing ward cleanup, and sending patients to off-ward activities. It was the relatively rare attendant who spent time talking with patients or playing games with them. It proved impossible to obtain a “percent mingling time” for nurses, since the amount of time they spent out of the cage was too brief. Rather, we counted instances of emergence from the cage. On the average, daytime nurses emerged from the cage 11.5 times per shift, including instances when they left the ward entirely (range, 4 to 39 times). Later afternoon and night nurses were even less available, emerging on the average 9.4 times per shift (range, 4 to 41 times). Data on early morning nurses, who arrived usually

after midnight and departed at 8 a.m., are not available because patients were asleep during most of this period.

Physicians, especially psychiatrists, were even less available. They were rarely seen on the wards. Quite commonly, they would be seen only when they arrived and departed, with the remaining time being spent in their offices or in the cage. On the average, physicians emerged on the ward 6.7 times per day (range, 1 to 17 times). It proved difficult to make an accurate estimate in this regard, since physicians often maintained hours that allowed them to come and go at different times.

The hierarchical organization of the psychiatric hospital has been commented on before, but the latent meaning of that kind of organization is worth noting again. Those with the most power have the least to do with patients, and those with the least power are the most involved with them. Recall, however, that the acquisition of role-appropriate behaviors occurs mainly through the observation of others, with the most powerful having the most influence. Consequently, it is understandable that attendants not only spend more time with patients than do any other members of the staff – that is required by their station in the hierarchy – but, also, insofar as they learn from their superior's behavior, spend as little time with patients as they can. Attendants are seen mainly in the cage, which is where the models, the action, and the power are.

I turn now to a different set of studies, these dealing with staff response to patient-initiated contact. It has long been known that the amount of time a person spends with you can be an index of your significance to him. If he initiates and maintains eye contact, there is reason to believe that he is considering your requests and needs. If he pauses to chat or actually stops and talks, there is added reason to infer that he is individuating you. In four hospitals, the pseudopatients approached the staff member with a request which took the following form: "Pardon me, Mr. [or Dr. or Mrs.] X, could you tell me when I will be eligible for grounds privileges?" (or "... when I will be presented at the staff meeting?" or "... when I am likely to be discharged?"). While the content of the question varied according to the appropriateness of the target and the pseudopatient's (apparent) current needs the form was always a courteous and relevant request for information. Care was taken never to approach a particular member of the staff more than once a day, lest the staff member become suspicious or irritated . . . [R]emember that the behavior of the pseudopatients was neither bizarre nor disruptive. One could indeed engage in good conversation with them.

. . . Minor differences between these four institutions were overwhelmed by the degree to which staff avoided continuing contacts that patients had initiated. By far, their most common response consisted of either a brief response to the question, offered while they were "on the move" and with head averted, or no response at all. The encounter frequently took the following bizarre form: (pseudopatient) "Pardon me, Dr. X. Could you tell me when I am eligible for grounds privileges?" (physician) "Good morning, Dave. How are you today? (Moves off without waiting for a response.) . . .

POWERLESSNESS AND DEPERSONALIZATION

Eye contact and verbal contact reflect concern and individuation; their absence, avoidance and depersonalization. The data I have presented do not do justice to the rich daily encounters that grew up around matters of depersonalization and avoidance. I have records of patients who were beaten by

staff for the sin of having initiated verbal contact. During my own experience, for example, one patient was beaten in the presence of other patients for having approached an attendant and told him, "I like you." Occasionally, punishment meted out to patients for misdemeanors seemed so excessive that it could not be justified by the most rational interpretations of psychiatric cannon. Nevertheless, they appeared to go unquestioned. Tempers were often short. A patient who had not heard a call for medication would be roundly excoriated, and the morning attendants would often wake patients with, "Come on, you m_____ f_____, out of bed!"

Neither anecdotal nor "hard" data can convey the overwhelming sense of powerlessness which invades the individual as he is continually exposed to the depersonalization of the psychiatric hospital. It hardly matters which psychiatric hospital – the excellent public ones and the very plush private hospital were better than the rural and shabby ones in this regard, but, again, the features that psychiatric hospitals had in common overwhelmed by far their apparent differences.

Powerlessness was evident everywhere.

The patient is deprived of many of his legal rights by dint of his psychiatric commitment. He is shorn of credibility by virtue of his psychiatric label. His freedom of movement is restricted. He cannot initiate contact with the staff, but may only respond to such overtures as they make. Personal privacy is minimal. Patient quarters and possessions can be entered and examined by any staff member, for whatever reason. His personal history and anguish is available to any staff member (often including the "grey lady" and "candy striper" volunteer) who chooses to read his folder, regardless of their therapeutic relationship to him. His personal hygiene and waste evacuation are often monitored. The water closets have no doors.

At times, depersonalization reached such proportions that pseudopatients had the sense that they were invisible, or at least unworthy of account. Upon being admitted, I and other pseudopatients took the initial physical examinations in a semipublic room, where staff members went about their own business as if we were not there.

On the ward, attendants delivered verbal and occasionally serious physical abuse to patients in the presence of others (the pseudopatients) who were writing it all down. Abusive behavior, on the other hand, terminated quite abruptly when other staff members were known to be coming. Staff are credible witnesses. Patients are not.

A nurse unbuttoned her uniform to adjust her brassiere in the present of an entire ward of viewing men. One did not have the sense that she was being seductive. Rather, she didn't notice us. A group of staff persons might point to a patient in the dayroom and discuss him animatedly, as if he were not there.

One illuminating instance of depersonalization and invisibility occurred with regard to medication. All told, the pseudopatients were administered nearly 2100 pills, including Elavil, Stelazine, Compazine, and Thorazine, to name but a few. (That such a variety of medications should have been administered to patients presenting identical symptoms is itself worthy of note.) Only two were swallowed. The rest were either pocketed or deposited in the toilet. The pseudopatients were not alone in this. Although I have no precise records on how many patients rejected their medications, the pseudopatients frequently found the medications of other patients in the toilet before

they deposited their own. As long as they were cooperative, their behavior and the pseudopatients' own in this matter, as in other important matters, went unnoticed throughout.

Reactions to such depersonalization among pseudopatients were intense. Although they had come to the hospital as participant observers and were fully aware that they did not "belong," they nevertheless found themselves caught up in and fighting the process of depersonalization. Some examples: a graduate student in psychology asked his wife to bring his textbooks to the hospital so he could "catch up on his homework" – this despite the elaborate precautions taken to conceal his professional association. The same student, who had trained for quite some time to get into the hospital, and who had looked forward to the experience, "remembered" some drag races that he had wanted to see on the weekend and insisted that he be discharged by that time. Another pseudopatient attempted a romance with a nurse. Subsequently, he informed the staff that he was applying for admission to graduate school in psychology and was very likely to be admitted, since a graduate professor was one of his regular hospital visitors. The same person began to engage in psychotherapy with other patients – all of this as a way of becoming a person in an impersonal environment.

THE SOURCES OF DEPERSONALIZATION

What are the origins of depersonalization? I have already mentioned two. First are attitudes held by all of us toward the mentally ill – including those who treat them – attitudes characterized by fear, distrust, and horrible expectations on the one hand, and benevolent intentions on the other. Our ambivalence leads, in this instance as in others, to avoidance.

Second, and not entirely separate, the hierarchical structure of the psychiatric hospital facilitates depersonalization. Those who are at the top have least to do with patients, and their behavior inspires the rest of the staff. Average daily contact with psychiatrists, psychologists, residents, and physicians combined ranged from 3.9 to 25.1 minutes, with an overall mean of 6.8 (six pseudopatients over a total of 129 days of hospitalization). Included in this average are time spent in the admissions interview, ward meetings in the presence of a senior staff member, group and individual psychotherapy contacts, case presentation conferences and discharge meetings. Clearly, patients do not spend much time in interpersonal contact with doctoral staff. And doctoral staff serve as models for nurses and attendants.

There are probably other sources. Psychiatric installations are presently in serious financial straits. Staff shortages are pervasive, and that shortens patient contact. Yet, while financial stresses are realities, too much can be made of them. I have the impression that the psychological forces that result in depersonalization are much stronger than the fiscal ones and that the addition of more staff would not correspondingly improve patient care in this regard. The incidence of staff meetings and the enormous amount of record-keeping on patients, for example, have not been as substantially reduced as has patient contact. Priorities exist, even during hard times. Patient contact is not a significant priority in the traditional psychiatric hospital, and fiscal pressures do not account for this. Avoidance and depersonalization may.

Heavy reliance upon psychotropic medication tacitly contributes to depersonalization by convincing staff that treatment is indeed being conducted and that further patient contact may not be necessary. Even here, however, caution needs to be exercised in understanding the role of

psychotropic drugs. If patients were powerful rather than powerless, if they were viewed as interesting individuals rather than diagnostic entities, if they were socially significant rather than social lepers, if their anguish truly and wholly compelled our sympathies and concerns, would we not seek contact with them, despite the availability of medications? Perhaps for the pleasure of it all?

THE CONSEQUENCES OF LABELING AND DEPERSONALIZATION

Whenever the ratio of what is known to what needs to be known approaches zero, we tend to invent “knowledge” and assume that we understand more than we actually do. We seem unable to acknowledge that we simply don’t know. The needs for diagnosis and remediation of behavioral and emotional problems are enormous. But rather than acknowledge that we are just embarking on understanding, we continue to label patients “schizophrenic,” “manic-depressive,” and “insane,” as if in those words we captured the essence of understanding. The facts of the matter are that we have known for a long time that diagnoses are often not useful or reliable, but we have nevertheless continued to use them. We now know that we cannot distinguish sanity from insanity. It is depressing to consider how that information will be used.

Not merely depressing, but frightening. How many people, one wonders, are sane but not recognized as such in our psychiatric institutions? How many have been needlessly stripped of their privileges of citizenship, from the right to vote and drive to that of handling their own accounts? How many have feigned insanity in order to avoid the criminal consequences of their behavior, and, conversely, how many would rather stand trial than live interminably in a psychiatric hospital – but are wrongly thought to be mentally ill? How many have been stigmatized by well-intentioned, but nevertheless erroneous, diagnoses? On the last point, recall again that a “Type 2 error” in psychiatric diagnosis does not have the same consequences it does in medical diagnosis. A diagnosis of cancer that has been found to be in error is cause for celebration. But psychiatric diagnoses are rarely found to be in error. The label sticks, a mark of inadequacy forever.

Finally, how many patients might be “sane” outside the psychiatric hospital but seem insane in it – not because craziness resides in them, as it were, but because they are responding to a bizarre setting, one that may be unique to institutions which harbor neither people? Goffman [8] calls the process of socialization to such institutions “mortification” – an apt metaphor that includes the processes of depersonalization that have been described here. And while it is impossible to know whether the pseudopatients’ responses to these processes are characteristic of all inmates – they were, after all, not real patients – it is difficult to believe that these processes of socialization to a psychiatric hospital provide useful attitudes or habits of response for living in the “real world.”

SUMMARY AND CONCLUSIONS

It is clear that we cannot distinguish the sane from the insane in psychiatric hospitals. The hospital itself imposes a special environment in which the meaning of behavior can easily be misunderstood. The consequences to patients hospitalized in such an environment – the powerlessness, depersonalization, segregation, mortification, and self-labeling – seem undoubtedly counter-therapeutic.

I do not, even now, understand this problem well enough to perceive solutions. But two matters seem to have some promise. The first concerns the proliferation of community mental health

facilities, of crisis intervention centers, of the human potential movement, and of behavior therapies that, for all of their own problems, tend to avoid psychiatric labels, to focus on specific problems and behaviors, and to retain the individual in a relatively non-pejorative environment. Clearly, to the extent that we refrain from sending the distressed to insane places, our impressions of them are less likely to be distorted. (The risk of distorted perceptions, it seems to me, is always present, since we are much more sensitive to an individual's behaviors and verbalizations than we are to the subtle contextual stimuli than often promote them. At issue here is a matter of magnitude. And, as I have shown, the magnitude of distortion is exceedingly high in the extreme context that is a psychiatric hospital.)

The second matter that might prove promising speaks to the need to increase the sensitivity of mental health workers and researchers to the Catch 22 position of psychiatric patients. Simply reading materials in this area will be of help to some such workers and researchers. For others, directly experiencing the impact of psychiatric hospitalization will be of enormous use. Clearly, further research into the social psychology of such total institutions will both facilitate treatment and deepen understanding.

I and the other pseudopatients in the psychiatric setting had distinctly negative reactions. We do not pretend to describe the subjective experiences of true patients. Theirs may be different from ours, particularly with the passage of time and the necessary process of adaptation to one's environment. But we can and do speak to the relatively more objective indices of treatment within the hospital. It could be a mistake, and a very unfortunate one, to consider that what happened to us derived from malice or stupidity on the part of the staff. Quite the contrary, our overwhelming impression of them was of people who really cared, who were committed and who were uncommonly intelligent. Where they failed, as they sometimes did painfully, it would be more accurate to attribute those failures to the environment in which they, too, found themselves than to personal callousness. Their perceptions and behaviors were controlled by the situation, rather than being motivated by a malicious disposition. In a more benign environment, one that was less attached to global diagnosis, their behaviors and judgments might have been more benign and effective.

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SOURCE: David L. Rosenhan, "On Being Sane in Insane Places," *Science*, Vol. 179 (Jan. 1973), 250-258.

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[1] R. Benedict, J.Gen. Psychol., 10 (1934), 59.

[2] Beyond the personal difficulties that the pseudopatient is likely to experience in the hospital, there are legal and social ones that, combined, require considerable attention before entry. For example, once admitted to a psychiatric institution, it is difficult, if not impossible, to be discharged on short notice, state law to the contrary notwithstanding. I was not sensitive to these difficulties at the outset of the project, nor to the personal and situational emergencies that can arise, but later a writ of habeas corpus was prepared for each of the entering pseudopatients and an attorney was kept "on call" during every hospitalization. I am grateful to John Kaplan and Robert Bartels for legal advice and assistance in these matters.

[3] However distasteful such concealment is, it was a necessary first step to examining these questions. Without concealment, there would have been no way to know how valid these experiences

were; nor was there any way of knowing whether whatever detections occurred were a tribute to the diagnostic acumen of the hospital's rumor network. Obviously, since my concerns are general ones that cut across individual hospitals and staffs, I have respected their anonymity and have eliminated clues that might lead to their identification.

[4] Interestingly, of the 12 admissions, 11 were diagnosed as schizophrenic and one, with the identical symptomatology, as manic-depressive psychosis. This diagnosis has more favorable prognosis, and it was given by the private hospital in our sample. One the relations between social class and psychiatric diagnosis, see A. deB. Hollingshead and F.C. Redlich, *Social Class and Mental Illness: A Community Study* (New York: John Wiley, 1958).

[5] S.E. Asch, *J. Abnorm. Soc. Psychol.*, 41 (1946), *Social Psychology* (Englewood Cliffs, NJ: Prentice_Hall, 1952).

[6] E. Zigler and L. Phillips, *J. Abnorm. Soc. Psychol.* 63, (1961) 69. See also R. K. Freudenberg and J. P. Robertson, *A.M.A. Arch. Neurol. Psychiatr.*, 76, (1956), 14.

[7] W. Mischel, *Personality and Assessment* (New York; John Wiley, 1968).

[8] E. Goffman, *Asylums* (Garden City, NY; Doubleday, 1961).

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Interpersonal Dynamics in a Simulated Prison

Interpersonal Dynamics in a Simulated Prison

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Interpersonal dynamics in a prison environment were studied experimentally by designing a functional simulation of a prison in which subjects role-played prisoners and guards for an extended period of time. To assess the power of the social forces on the emergent behaviour in this situation, alternative explanations in terms of pre-existing dispositions were eliminated through subject selection. A homogeneous, "normal" sample was chosen after extensive interviewing and diagnostic testing of a large group of volunteer male college students. Half of the subjects were randomly assigned to role-play prison guards for eight hours each day, while the others role-played prisoners incarcerated for nearly one full week. Neither group received any specific training in these roles.

Continuous, direct observation of behavioural interactions was supplemented by video-taped recording, questionnaires, self-report scales and interviews. All these data sources converge on the conclusion that this simulated prison developed into a psychologically compelling prison environment. As such, it elicited unexpectedly intense, realistic and often pathological reactions from many of the participants. The prisoners experienced a loss of personal identity and the arbitrary control of their behaviour which resulted in a syndrome of passivity, dependency, depression and helplessness. In contrast, the guards (with rare exceptions) experienced a marked gain in social power, status and group identification which made role-playing rewarding.

The most dramatic of the coping behaviour utilised by half of the prisoners in adapting to this stressful situation was the development of acute emotional disturbance—severe enough to warrant their early release. At least a third of the guards were judged to have become far more aggressive and dehumanising toward the prisoners than would ordinarily be predicted in a simulation study. Only a very few of the observed reactions to this experience of imprisonment could be attributed to personality trait differences which existed before the subjects began to play their assigned roles.

Introduction

After he had spent four years in a Siberian prison the great Russian novelist Dostoevsky commented, surprisingly, that his time in prison had created in him a deep optimism about the ultimate future of mankind because, as he put it, if man could survive the horrors of prison life he must surely be a "creature who could withstand anything". The cruel irony which Dostoevsky overlooked is that the reality of prison bears witness not only to the resilience and adaptiveness of the men who tolerate life within its walls, but as well to the "ingenuity" and tenacity of those who devised and still maintain our correctional and reformatory systems.

Nevertheless, in the century which has passed since Dostoevsky's imprisonment, little has changed to render the main thrust of his statement less relevant. Although we have passed through periods of enlightened humanitarian reform, in which physical conditions within prisons have improved somewhat and the rhetoric of rehabilitation has replaced the language of punitive incarceration, the social institution of prison has continued to fail. On purely pragmatic grounds, there is substantial evidence that prisons in fact neither "rehabilitate" nor act as a deterrent to future crime—in America, recidivism rates upwards of 75% speak quite decisively to these criteria. And, to perpetuate what is additionally an economic failure, American taxpayers alone must provide an expenditure for "corrections" of 1.5 billion dollars annually. On humanitarian grounds as well, prisons have failed: our mass media are increasingly filled with accounts of atrocities committed daily, man against man, in reaction to the penal system or in the name of it. The experience of prison undeniably creates, almost to the point of cliché, an intense hatred and disrespect in most inmates for the authority and the established order of society into which they will eventually return. And the toll which it takes on the deterioration of human spirit for those who must administer it, as well as for those upon whom it is inflicted, is incalculable.

Attempts to provide an explanation of the deplorable condition of our penal system and its dehumanising effects upon prisoners and guards, often focus upon what might be called the *dispositional hypothesis*. While this explanation is rarely expressed explicitly, it is central to a prevalent non-conscious ideology: that the state of the social institution of prison is due to the "nature" of the people who administer it, or the "nature" of the people who populate it, or both. That is, a major contributing cause to despicable conditions, violence, brutality, dehumanisation and degradation existing within any prison can be traced to some innate or acquired characteristic of the correctional and inmate population. Thus on the one hand, there is the contention that violence and brutality exist within prison because guards are sadistic, uneducated, and insensitive people. It is the "guard mentality", a unique syndrome of negative traits which they bring into the situation, that engenders the inhumane treatment of prisoners. Or, from other quarters comes the argument that violence and brutality in prison are the logical and predictable result of the

involuntary confinement of a collective of individuals whose life histories are, by definition, characterised by disregard for law, order and social convention and a concurrent propensity for impulsiveness and aggression. Logically, it follows that these individuals, having proved themselves incapable of functioning satisfactorily within the "normal" structure of society, cannot do so either inside the structure provided by prisons. To control such men as these, the argument continues, whose basic orientation to any conflict situation is to react with physical power or deception, force must be met with force, and a certain number of violent encounters must be expected and tolerated by the public.

The dispositional hypothesis has been embraced by the proponents of the prison *status quo* (blaming conditions on the evil in the prisoners), as well as by its critics (attributing the evil to guards and staff with their evil motives and deficient personality structures). The appealing simplicity of this proposition localises the source of prison riots, recidivism and corruption in these "bad seeds" and not in the conditions of the "prison soil". Such an analysis directs attention away from the complex matrix of social, economic and political forces which combine to make prisons what they are—and which would require complex, expensive, revolutionary solutions to bring about any meaningful change. Instead, rioting prisoners are identified, punished, transferred to maximum security institutions or shot, outside agitators sought and corrupt officials suspended—while the system itself goes on essentially unchanged, its basic structure unexamined and unchallenged.

However, a critical evaluation of the dispositional hypothesis cannot be made directly through observation in existing prison settings, since such naturalistic observation necessarily confounds the acute effects of the environment with the chronic characteristics of the inmate and guard populations. To separate the effects of the prison environment *per se* from those attributable to *à priori* dispositions of its inhabitants requires a research strategy in which a "new" prison is constructed, comparable in its fundamental social-psychological milieu to existing prison systems, but entirely populated by individuals who are undifferentiated in all essential dimensions from the rest of society.

Such was the approach taken in the present empirical study, namely, to create a prison-like situation in which the guards and inmates were initially comparable and characterised as being "normal-average", and then to observe the patterns of behaviour which resulted, as well as the cognitive, emotional and attitudinal reactions which emerged. Thus, we began our experiment with a sample of individuals who did not deviate from the normal range of the general population on a variety of dimensions we were able to measure. Half were randomly assigned to the role of "prisoner", the others to that of "guard", neither group having any history of crime, emotional disability, physical handicap nor even intellectual or social disadvantage.

The environment created was that of a "mock" prison which physically constrained the prisoners in barred cells and psychologically conveyed the sense of imprisonment to all participants. Our intention was not to create a *literal*

simulation of an American prison, but rather a functional representation of one. For ethical, moral and pragmatic reasons we could not detain our subjects for extended or indefinite periods of time, we could not exercise the threat and promise of severe physical punishment, we could not allow homosexual or racist practices to flourish, nor could we duplicate certain other specific aspects of prison life. Nevertheless, we believed that we could create a situation with sufficient mundane realism to allow the role-playing participants to go beyond the superficial demands of their assignment into the deep structure of the characters they represented. To do so, we established functional equivalents for the activities and experiences of actual prison life which were expected to produce qualitatively similar psychological reactions in our subjects—feelings of power and powerlessness, of control and oppression, of satisfaction and frustration, of arbitrary rule and resistance to authority, of status and anonymity, of machismo and emasculation. In the conventional terminology of experimental social psychology, we first identified a number of relevant conceptual variables through analysis of existing prison situations, then designed a setting in which these variables were made operational. No specific hypotheses were advanced other than the general one that assignment to the treatment of “guard” or “prisoner” would result in significantly different reactions on behavioural measures of interaction, emotional measures of mood state and pathology, attitudes toward self, as well as other indices of coping and adaptation to this novel situation. What follows is the mechanics of how we created and peopled our prison, what we observed, what our subjects reported, and finally, what we can conclude about the nature of the prison environment and the experience of imprisonment which can account for the failure of our prisons.

Method

Overview

The effects of playing the role of “guard” or “prisoner” were studied in the context of an experimental simulation of a prison environment. The research design was a relatively simple one, involving as it did only a single treatment variable, the random assignment to either a “guard” or “prisoner” condition. These roles were enacted over an extended period of time (nearly one week) within an environment which was physically constructed to resemble a prison. Central to the methodology of creating and maintaining a psychological state of imprisonment was the functional simulation of significant properties of “real prison life” (established through information from former inmates, correctional personnel and texts).

The “guards” were free with certain limits to implement the procedures of induction into the prison setting and maintenance of custodial retention of the “prisoners”. These inmates, having voluntarily submitted to the conditions of this total institution in which they now lived, coped in various ways with its

stresses and its challenges. The behaviour of both groups of subjects was observed, recorded and analysed. The dependent measures were of two general types: transactions between and within each group of subjects, recorded on video and audio tape as well as directly observed; individual reactions on questionnaires, mood inventories, personality tests, daily guard shift reports, and post experimental interviews.

Subjects

The 21 subjects who participated in the experiment were selected from an initial pool of 75 respondents, who answered a newspaper advertisement asking for male volunteers to participate in a psychological study of "prison life" in return for payment of \$15 per day. Those who responded to the notice completed an extensive questionnaire concerning their family background, physical and mental health history, prior experience and attitudinal propensities with respect to sources of psychopathology (including their involvement in crime). Each respondent who completed the background questionnaire was interviewed by one of two experimenters. Finally, the 24 subjects who were judged to be most stable (physically and mentally), most mature, and least involved in anti-social behaviour were selected to participate in the study. On a random basis, half of the subjects were assigned the role of "guard", half to the role of "prisoner".

The subjects were normal, healthy males attending colleges throughout the United States who were in the Stanford area during the summer. They were largely of middle class socio-economic status, Caucasians (with the exception of one Oriental subject). Initially they were strangers to each other, a selection precaution taken to avoid the disruption of any pre-existing friendship patterns and to mitigate against any transfer into the experimental situation of previously established relationships or patterns of behaviour.

This final sample of subjects was administered a battery of psychological tests on the day prior to the start of the simulation, but to avoid any selective bias on the part of the experimenter-observers, scores were not tabulated until the study was completed.

Two subjects who were assigned to be a "stand-by" in case an additional "prisoner" was needed were not called, and one subject assigned to be a "stand-by" guard decided against participating just before the simulation phase began—thus, our data analysis is based upon ten prisoners and eleven guards in our experimental conditions.

Procedure

Physical aspects of the prison

The prison was built in a 35-ft section of a basement corridor in the psychology building at Stanford University. It was partitioned by two fabricated walls, one of which was fitted with the only entrance door to the cell block, the other

contained a small observation screen. Three small cells (6 x 9 ft) were made from converted laboratory rooms by replacing the usual doors with steel barred, black painted ones, and removing all furniture.

A cot (with mattress, sheet and pillow) for each prisoner was the only furniture in the cells. A small closet across from the cells served as a solitary confinement facility; its dimensions were extremely small (2 x 2 x 7 ft) and it was unlit.

In addition, several rooms in an adjacent wing of the building were used as guards' quarters (to change in and out of uniform or for rest and relaxation), a bedroom for the "warden" and "superintendent", and an interview-testing room. Behind the observation screen at one end of the "yard" was video recording equipment and sufficient space for several observers.

Operational details

The "prisoner" subjects remained in the mock-prison 24 hours per day for the duration of the study. Three were arbitrarily assigned to each of the three cells; the others were on stand-by call at their homes. The "guard" subjects worked on three-man, eight-hour shifts; remaining in the prison environment only during their work shift, going about their usual lives at other times.

Role instruction

All subjects had been told that they would be assigned either the guard or the prisoner role on a completely random basis and all had voluntarily agreed to play either role for \$15.00 per day for up to two weeks. They signed a contract guaranteeing a minimally adequate diet, clothing, housing and medical care as well as the financial remuneration in return for their stated "intention" of serving in the assigned role for the duration of the study.

It was made explicit in the contract that those assigned to be prisoners should expect to be under surveillance (have little or no privacy) and to have some of their basic civil rights suspended during their imprisonment, excluding physical abuse. They were given no other information about what to expect nor instructions about behaviour appropriate for a prisoner role. Those actually assigned to this treatment were informed by phone to be available at their place of residence on a given Sunday when we would start the experiment.

The subjects assigned to be guards attended an orientation meeting on the day prior to the induction of the prisoners. At this time they were introduced to the principal investigators, the "Superintendent" of the prison (P.G.Z.) and an undergraduate research assistant who assumed the administrative role of "Warden". They were told that we wanted to try to simulate a prison environment within the limits imposed by pragmatic and ethical considerations. Their assigned task was to "maintain the reasonable degree of order within the prison necessary for its effective functioning", although the specifics of how this

duty might be implemented were not explicitly detailed. They were made aware of the fact that while many of the contingencies with which they might be confronted were essentially unpredictable (e.g. prisoner escape attempts), part of their task was to be prepared for such eventualities and to be able to deal appropriately with the variety of situations that might arise. The "Warden" instructed the guards in the administrative details, including: the work-shifts, the mandatory daily completion of shift reports concerning the activity of guards and prisoners, the completion of "critical incident" reports which detailed unusual occurrences and the administration of meals, work and recreation programmes for the prisoners. In order to begin to involve these subjects in their roles even before the first prisoner was incarcerated, the guards assisted in the final phases of completing the prison complex—putting the cots in the cells, signs on the walls, setting up the guards' quarters, moving furniture, water coolers, refrigerators, etc.

The guards generally believed that we were primarily interested in studying the behaviour of the prisoners. Of course, we were equally interested in the effect which enacting the role of guard in this environment would have on their behaviour and subjective states.

To optimise the extent to which their behaviour would reflect their genuine reactions to the experimental prison situation and not simply their ability to follow instructions, they were intentionally given only minimal guidelines for what it meant to be a guard. An explicit and categorical prohibition against the use of physical punishment or physical aggression was, however, emphasised by the experimenters. Thus, with this single notable exception, their roles were relatively unstructured initially, requiring each "guard" to carry out activities necessary for interacting with a group of "prisoners" as well as with other "guards" and the "correctional staff".

Uniform

In order to promote feelings of anonymity in the subjects each group was issued identical uniforms. For the guards, the uniform consisted of: plain khaki shirts and trousers, a whistle, a police night stick (wooden batons) and reflecting sunglasses which made eye contact impossible. The prisoners' uniform consisted of loosely fitting muslin smocks with an identification number on front and back. No underclothes were worn beneath these "dresses". A chain and lock were placed around one ankle. On their feet they wore rubber sandals and their hair was covered with a nylon stocking made into a cap. Each prisoner was also issued a toothbrush, soap, soapdish, towel and bed linen. No personal belongings were allowed in the cells.

The outfitting of both prisoners and guards in this manner served to enhance group identity and reduce individual uniqueness within the two groups. The khaki uniforms were intended to convey a military attitude, while the whistle and night-stick were carried as symbols of control and power. The prisoners'

uniforms were designed not only to deindividuate the prisoners but to be humiliating and serve as symbols of their dependence and subservience. The ankle chain was a constant reminder (even during their sleep when it hit the other ankle) of the oppressiveness of the environment. The stocking cap removed any distinctiveness associated with hair length, colour or style (as does shaving of heads in some "real" prisons and the military). The ill-fitting uniforms made the prisoners feel awkward in their movements; since these dresses were worn without undergarments, the uniforms forced them to assume unfamiliar postures, more like those of a woman than a man—another part of the emasculating process of becoming a prisoner.

Induction procedure

With the cooperation of Palo Alto City Police Department all of the subjects assigned to the prisoner treatment were unexpectedly "arrested" at their residences. A police officer charged them with suspicion of burglary or armed robbery, advised them of their legal rights, handcuffed them, thoroughly searched them (often as curious neighbours looked on) and carried them off to the police station in the rear of the police car. At the station they went through the standard routines of being fingerprinted, having an identification file prepared and then being placed in a detention cell. Each prisoner was blindfolded and subsequently driven by one of the experimenters and a subject-guard to our mock prison. Throughout the entire arrest procedure, the police officers involved maintained a formal, serious attitude, avoiding answering any questions of clarification as to the relation of this "arrest" to the mock prison study.

Upon arrival at our experimental prison, each prisoner was stripped, sprayed with a delousing preparation (a deodorant spray) and made to stand alone naked for a while in the cell yard. After being given the uniform described previously and having an I.D. picture taken ("mug shot"), the prisoner was put in his cell and ordered to remain silent.

Administrative routine

When all the cells were occupied, the warden greeted the prisoners and read them the rules of the institution (developed by the guards and the warden). They were to be memorised and to be followed. Prisoners were to be referred to only by the number on their uniforms, also in an effort to depersonalise them.

The prisoners were to be served three bland meals per day, were allowed three supervised toilet visits, and given two hours daily for the privilege of reading or letterwriting. Work assignments were issued for which the prisoners were to receive an hourly wage to constitute their \$15 daily payment. Two visiting periods per week were scheduled, as were movie rights and exercise periods. Three times a day all prisoners were lined up for a "count" (one on each guard

work-shift). The initial purpose of the "count" was to ascertain that all prisoners were present, and to test them on their knowledge of the rules and their I.D. numbers. The first perfunctory counts lasted only about 10 minutes, but on each successive day (or night) they were spontaneously increased in duration until some lasted several hours. Many of the pre-established features of administrative routine were modified or abandoned by the guards, and some were forgotten by the staff over the course of the study.

Data collection (dependent measures)

The exploratory nature of this investigation and the absence of specific hypotheses led us to adopt the strategy of surveying as many as possible behavioural and psychological manifestations of the prison experience on the guards and the prisoners. In fact, one major methodological problem in a study of this kind is defining the limits of the "data", since relevant data emerged from virtually every interaction between any of the participants, as well as from subjective and behavioural reactions of individual prisoners, guards, the warden, superintendent, research assistants and visitors to the prison. It will also be clear when the results are presented that causal direction cannot always be established in the patterns of interaction where any given behaviour might be the consequence of a current or prior instigation by another subject and, in turn, might serve as impetus for eliciting reactions from others.

Data collection was organised around the following sources:

(1) *Videotaping.* About 12 hours of recordings were made of daily, regularly occurring events, such as the counts and meals, as well as unusual interactions, such as a prisoner rebellion, visits from a priest, a lawyer and parents, Parole Board meetings and others. Concealed video equipment recorded these events through a screen in the partition at one end of the cell-block yard or in a conference room (for parole meetings).

(2) *Audio recording.* Over 30 hours of recordings were made of verbal interactions between guards and prisoners on the prison yard. Concealed microphones picked up all conversation taking place in the yard as well as some within the cells. Other concealed recordings were made in the testing-interview room on selected occasions—interactions between the warden, superintendent and the prisoners' Grievance Committee, parents, other visitors and prisoners released early. In addition, each subject was interviewed by one of the experimenters (or by other research associates) during the study, and most just prior to its termination.

(3) *Rating scales.* Mood adjective checklists and sociometric measures were administered on several occasions to assess emotional changes in affective state and interpersonal dynamics among the guard and prisoner groups.

(4) *Individual difference scales.* One day prior to the start of the simulation all subjects completed a series of paper and pencil personality tests. These tests

were selected to provide dispositional indicators of interpersonal behaviour styles—the *F* scale of Authoritarian Personality [1], and the Machiavellianism Scale [2]—as well as areas of possible personality pathology through the newly developed Comrey Personality Scale [3]. The subscales of this latter test consist of:

- (a) trustworthiness
- (b) orderliness
- (c) conformity
- (d) activity
- (e) stability
- (f) extroversion
- (g) masculinity
- (h) empathy

(5) *Personal observations.* The guards made daily reports of their observations after each shift, the experimenters kept informal diaries and all subjects completed post-experimental questionnaires of their reactions to the experience about a month after the study was over.

Data analyses presented problems of several kinds. First, some of the data was subject to possible errors due to selective sampling. The video and audio recordings tended to be focussed upon the more interesting, dramatic events which occurred. Over time, the experimenters became more personally involved in the transaction and were not as distant and objective as they should have been. Second, there are not complete data on all subjects for each measure because of prisoners being released at different times and because of unexpected disruptions, conflicts and administrative problems. Finally, we have a relatively small sample on which to make cross-tabulations by possible independent and individual difference variables.

However, despite these shortcomings some of the overall effects in the data are powerful enough to reveal clear, reliable results. Also some of the more subtle analyses were able to yield statistically significant results even with the small sample size. Most crucial for the conclusions generated by this exploratory study is the consistency in the pattern of relationships which emerge across a wide range of measuring instruments and different observers. Special analyses were required only of the video and audio material, the other data sources were analysed following established scoring procedures.

Video analysis

There were 25 relatively discrete incidents identifiable on the tapes of prisoner-guard interactions. Each incident or scene was scored for the presence of nine behavioural (and verbal) categories. Two judges who had not been involved with the simulation study scored these tapes. These categories were defined as follows:

Question. All questions asked, requests for information or assistance (excluding rhetorical questions).

Command. An order to commence or abstain from a specific behaviour, directed either to individuals or groups. Also generalised orders, e.g. "Settle down".

Information. A specific piece of information proffered by anyone whether requested or not, dealing with any contingency of the simulation.

Individuating reference. Positive: use of a person's real name, nickname or allusion to special positive physical characteristics. Negative: use of prison number, title, generalised "you" or reference to derogatory characteristic.

Threat. Verbal statement of contingent negative consequences of a wide variety, e.g. no meal, long count, pushups, lock-up in hole, no visitors, etc.

Deprecation insult. Use of obscenity, slander, malicious statement directed toward individual or group, e.g. "You lead a life of mendacity" or "You guys are really stupid."

Resistance. Any physical resistance, usually prisoners to guards, such as holding on to beds, blocking doors, shoving guard or prisoner, taking off stocking caps, refusing to carry out orders.

Help. Person physically assisting another (i.e. excludes verbal statements of support), e.g. guard helping another to open door, prisoner helping another prisoner in cleanup duties.

Use of instruments. Use of any physical instrument to either intimidate, threaten, or achieve specific end, e.g. fire extinguisher, batons, whistles.

Audio analysis

For purposes of classifying the verbal behaviour recorded from interviews with guards and prisoners, eleven categories were devised. Each statement made by the interviewee was assigned to the appropriate category by judges. At the end of this process for any given interview analysis, a list had been compiled of the nature and frequencies of the interviewee's discourse. The eleven categories for assignment of verbal expressions were:

Questions. All questions asked, requests for information or assistance (excluding rhetorical questions).

Informative statements. A specific piece of information proffered by anyone whether requested or not, dealing with any contingency of the simulation.

Demands. Declarative statements of need or imperative requests.

Requests. Deferential statements for material or personal consideration.

Commands. Orders to commence or abstain from a specific behaviour, directed either to individuals or groups.

Outlook, positive/negative. Expressions of expectancies for future experiences or future events; either negative or positive in tone, e.g. "I don't think I can make it" v. "I believe I will feel better."

Criticism. Expressions of critical evaluation concerning other subjects, the experimenters or the experiment itself.

Statements of identifying reference, deindividuating/individuating. Statements wherein a subject makes some reference to another subject specifically by allusion to given name or distinctive characteristics (individuating reference), or by allusion to non-specific identity or institutional number (deindividuating reference).

Desire to continue. Any expression of a subject's wish to continue or to curtail participation in the experiment.

Self-evaluation, positive/negative. Statements of self-esteem or self-degradation, e.g. "I feel pretty good about the way I've adjusted" v. "I hate myself for being so oppressive."

Action intentions, positive/negative including "intent to aggress". Statements concerning interviewees' intentions to do something in the future, either of a positive, constructive nature or a negative, destructive nature, e.g. "I'm not going to be so mean from now on" v. "I'll break the door down."

Results

Overview

Although it is difficult to anticipate exactly what the influence of incarceration will be upon the individuals who are subjected to it and those charged with its maintenance (especially in a simulated reproduction), the results of the present experiment support many commonly held conceptions of prison life and validate anecdotal evidence supplied by articulate ex-convicts. The environment of arbitrary custody had great impact upon the affective states of both guards and prisoners as well as upon the interpersonal processes taking place between and within those role-groups.

In general, guards and prisoners showed a marked tendency toward increased negativity of affect and their overall outlook became increasingly negative. As the experiment progressed, prisoners expressed intentions to do harm to others more frequently. For both prisoners and guards, self-evaluations were more deprecating as the experience of the prison environment became internalised.

Overt behaviour was generally consistent with the subjective self-reports and affective expressions of the subjects. Despite the fact that guards and prisoners were essentially free to engage in any form of interaction (positive or negative, supportive or affrontive, etc.), the characteristic nature of their encounters tended to be negative, hostile, affrontive and dehumanising. Prisoners immediately adopted a generally passive response mode while guards assumed a very active initiating role in all interactions. Throughout the experiment, commands were the most frequent form of verbal behaviour and, generally, verbal exchanges were strikingly impersonal, with few references to individual identity. Although it was clear to all subjects that the experimenters would not

permit physical violence to take place, varieties of less direct aggressive behaviour were observed frequently (especially on the part of guards). In lieu of physical violence, verbal affronts were used as one of the most frequent forms of interpersonal contact between guards and prisoners.

The most dramatic evidence of the impact of this situation upon the participants was seen in the gross reactions of five prisoners who had to be released because of extreme emotional depression, crying, rage and acute anxiety. The pattern of symptoms was quite similar in four of the subjects and began as early as the second day of imprisonment. The fifth subject was released after being treated for a psychosomatic rash which covered portions of his body. Of the remaining prisoners, only two said they were not willing to forfeit the money they had earned in return for being "paroled". When the experiment was terminated prematurely after only six days, all the remaining prisoners were delighted by their unexpected good fortune. In contrast, most of the guards seemed to be distressed by the decision to stop the experiment and it appeared to us that had become sufficiently involved in their roles so that they now enjoyed the extreme control and power which they exercised and were reluctant to give it up. One guard did report being personally upset at the suffering of the prisoners and claimed to have considered asking to change his role to become one of them—but never did so. None of the guards ever failed to come to work on time for their shift, and indeed, on several occasions guards remained on duty voluntarily and uncomplaining for extra hours—without additional pay.

The extremely pathological reactions which emerged in both groups of subjects testify to the power of the social forces operating, but still there were individual differences seen in styles of coping with this novel experience and in degrees of successful adaptation to it. Half the prisoners did endure the oppressive atmosphere, and not all the guards resorted to hostility. Some guards were tough but fair ("played by the rules"), some went far beyond their roles to engage in creative cruelty and harassment, while a few were passive and rarely instigated any coercive control over the prisoners.

These differential reactions to the experience of imprisonment were not suggested by or predictable from the self-report measures of personality and attitude or the interviews taken before the experiment began. The standardised tests employed indicated that a perfectly normal emotionally stable sample of subjects had been selected. In those few instances where differential test scores do discriminate between subjects, there is an opportunity to, partially at least, discern some of the personality variables which may be critical in the adaptation to and tolerance of prison confinement.

Initial personality and attitude measures

Overall, it is apparent that initial personality-attitude dispositions account for an extremely small part of the variation in reactions to this mock prison experience. However, in a few select instances, such dispositions do seem to be correlated with the prisoners' ability to adjust to the experimental prison environment.

Comrey scale

The Comrey Personality Inventory [3] was the primary personality scale administered to both guards and prisoners. The mean scores for prisoners and guards on the eight sub-scales of the test are shown in Table 1. No differences between prisoner and guard mean scores on any scale even approach statistical significance. Furthermore, in no case does any group mean fall outside of the 40 to 60 centile range of the normative male population reported by Comrey.

Table 1. Mean scores for prisoners and guards on eight Comrey subscales

Scale	Prisoners	Guards
Trustworthiness—high score indicates belief in the basic honesty and good intentions of others	$\bar{X} = 92.56$	$\bar{X} = 89.64$
Orderliness—extent to which person is meticulous and concerned with neatness and orderliness	$\bar{X} = 75.67$	$\bar{X} = 73.82$
Conformity—indicates belief in law enforcement, acceptance of society as it is, resentment of nonconformity in others	$\bar{X} = 65.67$	$\bar{X} = 63.18$
Activity—liking for physical activity, hard work, and exercise	$\bar{X} = 89.78$	$\bar{X} = 91.73$
Stability—high score indicates calm, optimistic, stable, confident individual	$\bar{X} = 98.33$	$\bar{X} = 101.45$
Extroversion—suggests outgoing, easy to meet person	$\bar{X} = 83.22$	$\bar{X} = 81.91$
Masculinity—"people who are not bothered by crawling creatures, the sight of blood, vulgarity, who do not cry easily and are not interested in love stories"	$\bar{X} = 88.44$	$\bar{X} = 87.00$
Empathy—high score indicates individuals who are sympathetic, helpful, generous and interested in devoting their lives to the service of others	$\bar{X} = 91.78$	$\bar{X} = 95.36$

Table 2. Mean scores for "Remaining" v. "Early released" prisoners on Comrey subscales

Scale	Remaining prisoners	Early released prisoners	Mean difference
Trustworthiness	93.4	90.8	+2.6
Orderliness	76.6	78.0	-1.4
Conformity	67.2	59.4	+7.8
Activity	91.4	86.8	+4.6
Stability	99.2	99.6	-0.4
Extroversion	98.4	76.2	+22.2
Masculinity	91.6	86.0	+5.6
Empathy	103.8	85.6	+17.2

Table 2 shows the mean scores on the Comrey sub-scales for prisoners who remained compared with prisoners who were released early due to severe emotional reactions to the environment. Although none of the comparisons achieved statistical significance, three seemed at least suggestive as possible discriminators of those who were able to tolerate this type of confinement and those who were not. Compared with those who had to be released, prisoners who remained in prison until the termination of the study: scored higher on conformity ("acceptance of society as it is"), showed substantially higher average scores on Comrey's measure of extroversion and also scored higher on a scale of empathy (helpfulness, sympathy and generosity).

F-Scale

The *F*-scale is designed to measure rigid adherence to conventional values and a submissive, uncritical attitude towards authority. There was no difference between the mean score for prisoners (4.78) and the mean score for guards (4.36) on this scale.

Again, comparing those prisoners who remained with those who were released early, we notice an interesting trend. This intra-group comparison shows remaining prisoners scoring more than twice as high on conventionalism and authoritarianism ($\bar{X} = 7.78$) than those prisoners released early ($\bar{X} = 3.20$). While the difference between these means fails to reach acceptable levels of significance, it is striking to note that a rank-ordering of prisoners on the *F*-scale correlates highly with the duration of their stay in the experiment ($r_s = 0.898$, $P < 0.005$). To the extent that a prisoner was high in rigidity, in adherence to conventional values, and in the acceptance of authority, he was likely to remain longer and adjust more effectively to this authoritarian prison environment.

Machiavellianism

There were no significant mean differences found between guards ($\bar{X} = 7.73$) and prisoners ($\bar{X} = 8.77$) on this measure of effective interpersonal manipulation. In addition, the Mach Scale was of no help in predicting the likelihood that a prisoner would tolerate the prison situation and remain in the study until its termination.

This latter finding, the lack of any mean differences between prisoners who remained *v.* those who were released from the study, is somewhat surprising since one might expect the Hi Mach's skill at manipulating social interaction and mediating favourable outcomes for himself might be acutely relevant to the simulated prison environment. Indeed, the two prisoners who scored highest on the Machiavellianism scale were also among those adjudged by the experimenters to have made unusually effective adaptations to their confinement. Yet, paradoxically (and this may give the reader some feeling for the anomalies we encountered in attempting to predict in-prison behaviour from personality

measures), the other two prisoners whom we categorised as having effectively adjusted to confinement actually obtained the lowest Mach scores of any prisoners.

Video recordings

An analysis of the video recordings indicates a preponderance of genuinely negative interactions, i.e. physical aggression, threats, deprecations, etc. It is also clear that any assertive activity was largely the prerogative of the guards, while prisoners generally assumed a relatively passive demeanour. Guards more often aggressed, more often insulted, more often threatened. Prisoners, when they reacted at all, engaged primarily in resistance to these guard behaviours.

For guards, the most frequent verbal behaviour was the giving of commands and their most frequent form of physical behaviour was aggression. The most frequent form of prisoners' verbal behaviour was question-asking, their most frequent form of physical behaviour was resistance. On the other hand, the most infrequent behaviour engaged in overall throughout the experiment was "helping"—only one such incident was noted from all the video recording collected. That solitary sign of human concern for a fellow occurred between two prisoners.

Although question-asking was the most frequent form of verbal behaviour for the prisoners, guards actually asked questions more frequently overall than did prisoners (but not significantly so). This is reflective of the fact that the overall level of behaviour emitted was much higher for the guards than for the prisoners. All of those verbal acts categorised as commands were engaged in by guards. Obviously, prisoners had no opportunity to give commands at all, that behaviour becoming the exclusive "right" of guards.

Of a total 61 incidents of direct interpersonal reference observed (incidents in which one subject spoke directly to another with the use of some identifying reference, i.e. "Hey, Peter"; "you there", etc.), 58 involved the use of some deindividuating rather than some individuating form of reference. (Recall that we characterised this distinction as follows: an individuating reference involved the use of a person's actual name, nickname or allusion to special physical characteristics, whereas a deindividuating reference involved the use of a prison number, or a generalised "you"—thus being a very depersonalising form of reference.) Since all subjects were at liberty to refer to one another in either mode, it is significant that such a large proportion of the references noted involved were in the deindividuating mode ($Z = 6.9, P < 0.01$). Deindividuating references were made more often by guards in speaking to prisoners than the reverse ($Z = 3.67, P < 0.01$). (This finding, as all prisoner-guard comparisons for specific categories, may be somewhat confounded by the fact that guards apparently enjoyed a greater freedom to initiate verbal as well as other forms of behaviour. Note, however, that the existence of this greater "freedom" on the part of the guards is itself an empirical finding since it was not prescribed

a priori.) It is of additional interest to point out that in the only three cases in which verbal exchange involved some individuating reference, it was prisoners who personalised guards.

A total of 32 incidents were observed which involved a verbal threat spoken by one subject to another. Of these, 27 such incidents involved a guard threatening a prisoner. Again, the indulgence of guards in this form of behaviour was significantly greater than the indulgence of prisoners, the observed frequencies deviating significantly from an equal distribution of threats across both groups ($Z = 3.88, P < 0.01$).

Guards more often deprecated and insulted prisoners than prisoners did of guards. Of a total of 67 observed incidents, the deprecation-insult was expressed disproportionately by guards to prisoners 61 times; ($Z = 6.72, P < 0.01$).

Physical resistance was observed 34 different times. Of these, 32 incidents involved resistance by a prisoner. Thus, as we might expect, at least in this reactive behaviour domain, prisoner responses far exceeded those of the guards ($Z = 5.14, P < 0.01$).

The use of some object or instrument in the achievement of an intended purpose or in some interpersonal interaction was observed 29 times. Twenty-three such incidents involved the use of an instrument by a guard rather than a prisoner. This disproportionate frequency is significantly variant from an equal random use by both prisoners and guards ($Z = 3.16, P < 0.01$).

Over time, from day to day, guards were observed to generally escalate their harassment of the prisoners. In particular, a comparison of two of the first prisoner-guard interactions (during the counts) with two of the last counts in the experiment yielded significant differences in: the use of deindividuating references per unit time ($\bar{X}_{t_1} = 0.0$ and $\bar{X}_{t_2} = 5.40$, respectively; $t = 3.65, P < 0.10$); the incidence of deprecation-insult per unit time ($\bar{X}_{t_1} = 0.3$ and $\bar{X}_{t_2} = 5.70$, respectively; $t = 3.16, P < 0.10$). On the other hand, a temporal analysis of the prisoner video data indicated a general decrease across all categories over time: prisoners came to initiate acts far less frequently and responded (if at all) more passively to the acts of others—they simply *behaved less*.

Although the harassment by the guards escalated overall as the experiment wore on, there was some variation in the extent to which the three different guard shifts contributed to the harassment in general. With the exception of the 2.30 a.m. count, prisoners enjoyed some respite during the late night guard shift (10.00 p.m. to 6.00 a.m.). But they really were “under the gun” during the evening shift. This was obvious in our observations and in subsequent interviews with the prisoners and was also confirmed in analysis of the video taped interactions. Comparing the three different guard shifts, the evening shift was significantly different from the other two in resorting to commands; the means being 9.30 and 4.04, respectively, for standardised units of time ($t = 2.50, P < 0.05$). In addition, the guards on this “tough and cruel” shift showed more than twice as many deprecation-insults toward the prisoners (means of 5.17 and

2.29, respectively, $P < 0.20$). They also tended to use instruments more often than other shifts to keep the prisoners in line.

Audio recordings

The audio recordings made throughout the prison simulation afforded one opportunity to systematically collect self-report data from prisoners and guards regarding (among other things) their emotional reactions, their outlook, and their interpersonal evaluations and activities within the experimental setting. Recorded interviews with both prisoners and guards offered evidence that: guards tended to express nearly as much negative outlook and negative self-regard as most prisoners (one concerned guard, in fact, expressed more negative self-regard than any prisoner and more general negative affect than all but one of the prisoners); prisoner interviews were marked by negativity in expressions of affect, self-regard and action intentions (including intent to aggress and negative outlook).

Analysis of the prisoner interviews also gave *post hoc* support to our informal impressions and subjective decisions concerning the differential emotional effects of the experiment upon those prisoners who remained and those who were released early from the study. A comparison of the mean number of expressions of negative outlook, negative affect, negative self-regard and intentions to aggress made by remaining *v.* released prisoners (per interview) yielded the following results: prisoners released early expressed more negative expectations during interviews than those who remained ($t = 2.32, P < 0.10$) and also more negative affect ($t = 2.17, P < 0.10$); prisoners released early expressed more negative self-regard, and four times as many "intentions to aggress" as prisoners who remained (although those comparisons fail to reach an acceptable level of significance).

Since we could video-record only public interactions on the "yard", it was of special interest to discover what was occurring among prisoners in private. What were they talking about in the cells—their college life, their vocation, girl friends, what they would do for the remainder of the summer once the experiment was over. We were surprised to discover that fully 90% of all conversations among prisoners were related to prison topics, while only 10% to non-prison topics such as the above. They were most concerned about food, guard harassment, setting up a grievance committee, escape plans, visitors, reactions of prisoners in the other cells and in solitary. Thus, in their private conversations when they might escape the roles they were playing in public, they did not. There was no discontinuity between their presentation of self when under surveillance and when alone.

Even more remarkable was the discovery that the prisoners had begun to adopt and accept the guards' negative attitude toward them. Half of all reported private interactions between prisoners could be classified as non-supportive and non-cooperative. Moreover, when prisoners made evaluative statements of or

expressed regard for, their fellow prisoners, 85% of the time they were uncomplimentary and deprecating. This set of observed frequencies departs significantly from chance expectations based on a conservative binomial probability frequency ($P < 0.01$ for prison *v.* non-prison topics; $P < 0.05$ for negative *v.* positive or neutral regard).

Mood adjective self-reports

Twice during the progress of the experiment each subject was asked to complete a mood adjective checklist and indicate his current affective state. The data gleaned from these self-reports did not lend themselves readily to statistical analysis. However, the trends suggested by simple enumeration are important enough to be included without reference to statistical significance. In these written self-reports, prisoners expressed nearly three times as much negative as positive affect. Prisoners roughly expressed three times as much negative affect as guards. Guards expressed slightly more negative than positive affect. While prisoners expressed about twice as much emotionality as did guards, a comparison of mood self-reports over time reveals that the prisoners showed two to three times as much mood fluctuation as did the relatively stable guards. On the dimension of activity-passivity, prisoners tended to score twice as high, indicating twice as much internal "agitation" as guards (although, as stated above, prisoners were seen to be markedly less active than guards in terms of overt behaviour).

It would seem from these results that while the experience had a categorically negative emotional impact upon both guards and prisoners, the effects upon prisoners were more profound and unstable.

When the mood scales were administered for a third time, just after the subjects were told the study had been terminated (and the early released subjects returned for the debriefing encounter session), marked changes in mood were evident. All of the now "ex-convicts" selected self-descriptive adjectives which characterised their mood as less negative and much more positive. In addition, they now felt less passive than before. There were no longer any differences on the sub-scales of this test between prisoners released early and those who remained throughout. Both groups of subjects had returned to their pre-experimental baselines of emotional responding. This seems to reflect the situational specificity of the depression and stress reactions experienced while in the role of prisoner.

Representative personal statements

Much of the flavour and impact of this prison experience is unavoidably lost in the relatively formal, objective analyses outlined in this paper. The following quotations taken from interviews, conversations and questionnaires provide a more personal view of what it was like to be a prisoner or guard in the "Stanford County Prison" experiment.

Guards

"They [the prisoners] seemed to lose touch with the reality of the experiment—they took me so seriously."

"...I didn't interfere with any of the guards' actions. Usually if what they were doing bothered me, I would walk out and take another duty."

"...looking back, I am impressed by how little I felt for them . . ."

"...They [the prisoners] didn't see it as an experiment. It was real and they were fighting to keep their identity. But we were always there to show them just who was boss."

"...I was tired of seeing the prisoners in their rags and smelling the strong odours of their bodies that filled the cells. I watched them tear at each other, on orders given by us."

"...Acting authoritatively can be fun. Power can be a great pleasure."

"...During the inspection, I went to cell 2 to mess up a bed which the prisoner had made and he grabbed me, screaming that he had just made it, and he wasn't going to let me mess it up. He grabbed my throat, and although he was laughing I was pretty scared. I lashed out with my stick and hit him in the chin (although not very hard) and when I freed myself I became angry."

Prisoners

"...The way we were made to degrade ourselves really brought us down and that's why we all sat docile towards the end of the experiment."

"...I realise now (after it's over) that no matter how together I thought I was inside my head, my prison behaviour was often less under my control than I realised. No matter how open, friendly and helpful I was with other prisoners I was still operating as an isolated, self-centred person, being rational rather than compassionate."

"...I began to feel I was losing my identity, that the person I call _____, the person who volunteered to get me into this prison (because it was a prison to me, it *still* is a prison to me, I don't regard it as an experiment or a simulation ...) was distant from me, was remote until finally I wasn't *that* person, I was 416. I was really my number and 416 was really going to have to decide what to do."

"I learned that people can easily forget that others are human."

Debriefing encounter sessions

Because of the unexpectedly intense reactions (such as the above) generated by this mock-prison experience, we decided to terminate the study at the end of six days rather than continue for the second week. Three separate encounter sessions were held, first, for the prisoners, then for the guards and finally for all participants together. Subjects and staff openly discussed their reactions and strong feelings were expressed and shared. We analysed the moral conflicts posed by this experience and used the debriefing sessions to make explicit alternative courses of action that would lead to more moral behaviour in future comparable situations.

Follow-ups on each subject over the year following termination of the study revealed the negative effects of participation had been temporary, while the personal gain to the subjects endured.

Conclusions and Discussion

It should be apparent that the elaborate procedures (and staging) employed by the experimenters to insure a high degree of mundane realism in this mock prison contributed to its effective functional simulation of the psychological dynamics operating in "real" prisons. We observed empirical relationships in the simulated prison environment which were strikingly isomorphic to the internal relations of real prisons, corroborating many of the documented reports of what occurs behind prison walls.

The conferring of differential power on the status of "guard" and "prisoner" constituted, in effect, the institutional validation of those roles. But further, many of the subjects ceased distinguishing between prison role and their prior self-identities. When this occurred, within what was a surprisingly short period of time, we witnessed a sample of normal, healthy American college students fractionate into a group of prison guards who seemed to derive pleasure from insulting, threatening, humiliating and dehumanising their peers—those who by chance selection had been assigned to the "prisoner" role. The typical prisoner syndrome was one of passivity, dependency, depression, helplessness and self-deprecation. Prisoner participation in the social reality which the guards had structured for them lent increasing validity to it and, as the prisoners became resigned to their treatment over time, many acted in ways to justify their fate at the hands of the guards, adopting attitudes and behaviour which helped to sanction their victimisation. Most dramatic and distressing to us was the observation of the ease with which sadistic behaviour could be elicited in individuals who were not "sadistic types" and the frequency with which acute emotional breakdowns could occur in men selected precisely for their emotional stability.

Situational v. dispositional attribution

To what can we attribute these deviant behaviour patterns? If these reactions had been observed within the confines of an existing penal institution, it is probable that a dispositional hypothesis would be invoked as an explanation. Some cruel guards might be singled out as sadistic or passive-aggressive personality types who chose to work in a correctional institution because of the outlets provided for sanctioned aggression. Aberrant reactions on the part of the inmate population would likewise be viewed as an extrapolation from the prior social histories of these men as violent, anti-social, psychopathic, unstable character types.

Existing penal institutions may be viewed as *natural experiments* in social control in which any attempts at providing a causal attribution for observed behaviour hopelessly confound dispositional and situational causes. In contrast, the design of our study minimised the utility of trait or prior social history explanations by means of judicious subject selection and random assignment to roles. Considerable effort and care went into determining the composition of the

final subject population from which our guards and prisoners were drawn. Through case histories, personal interviews and a battery of personality tests, the subjects chosen to participate manifested no apparent abnormalities, anti-social tendencies or social backgrounds which were other than exemplary. On every one of the scores of the diagnostic tests each subject scored within the normal-average range. Our subjects then, were highly representative of middle-class, Caucasian American society (17 to 30 years in age), although above average in both intelligence and emotional stability.

Nevertheless, in less than one week their *behaviour* in this simulated prison could be characterised as pathological and anti-social. The negative, anti-social reactions observed were not the product of an environment created by combining a collection of deviant personalities, but rather, the result of an intrinsically pathological situation which could distort and rechannel the behaviour of essentially normal individuals. The abnormality here resided in the psychological nature of the situation and not in those who passed through it. Thus, we offer another instance in support of Mischel's [4] social-learning analysis of the power of situational variables to shape complex social behaviour. Our results are also congruent with those of Milgram [5] who most convincingly demonstrated the proposition that evil acts are not necessarily the deeds of evil men, but may be attributable to the operation of powerful social forces. Our findings go one step further, however, in removing the immediate presence of the dominant experimenter-authority figure, giving the subjects-as-guards a freer range of behavioural alternatives, and involving the participants for a much more extended period of time.

Despite the evidence favouring a situational causal analysis in this experiment, it should be clear that the research design actually *minimised* the effects of individual differences by use of a homogenous middle-range subject population. It did not allow the strongest possible test of the relative utility of the two types of explanation. We cannot say that personality differences do not have an important effect on behaviour in situations such as the one reported here. Rather, we may assert that the variance in behaviour observed could be reliably attributed to variations in situational rather than personality variables. The inherently pathological characteristics of the prison situation itself, at least as functionally simulated in our study, were a *sufficient* condition to produce aberrant, anti-social behaviour. (An alternative design which would maximise the potential operation of personality or dispositional variables would assign subjects who were extreme on pre-selected personality dimensions to each of the two experimental treatments. Such a design would, however, require a larger subject population and more resources than we had available.)

The failure of personality assessment variables to reliably discriminate the various patterns of prison behaviour, guard reactions as well as prisoner coping styles is reminiscent of the inability of personality tests to contribute to an understanding of the psychological differences between American P.O.W.s in Korea who succumbed to alleged Chinese Communist brain-washing by

"collaborating with the enemy" and those who resisted [6]. It seems to us that there is little reason to expect paper-and-pencil behavioural reactions on personality tests taken under "normal" conditions to generalise into coping behaviours under novel, stressful or abnormal environmental conditions. It may be that the best predictor of behaviour in situations of stress and power, as occurs in prisons, is overt behaviour in functionally comparable simulated environments.

In the situation of imprisonment faced by our subjects, despite the potent situational control, individual differences were nevertheless manifested both in coping styles among the prisoners and in the extent and type of aggression and exercise of power among the guards. Personality variables, conceived as learned behaviour styles can act as moderator variables in allaying or intensifying the impact of social situational variables. Their predictive utility depends upon acknowledging the inter-active relationship of such learned dispositional tendencies with the eliciting force of the situational variables.

Reality of the simulation

At this point it seems necessary to confront the critical question of "reality" in the simulated prison environment: were the behaviours observed more than the mere acting out assigned roles convincingly? To be sure, ethical, legal and practical considerations set limits upon the degree to which this situation could approach the conditions existing in actual prisons and penitentiaries. Necessarily absent were some of the most salient aspects of prison life reported by criminologists and documented in the writing of prisoners [7, 8]. There was no involuntary homosexuality, no racism, no physical beatings, no threat to life by prisoners against each other or the guards. Moreover, the maximum anticipated "sentence" was only two weeks and, unlike some prison systems, could not be extended indefinitely for infractions of the internal operating rules of the prison.

In one sense, the profound psychological effects we observed under the relatively minimal prison-like conditions which existed in our mock prison make the results even more significant and force us to wonder about the devastating impact of chronic incarceration in real prisons. Nevertheless, we must contend with the criticism that the conditions which prevailed in the mock prison were too minimal to provide a meaningful analogue to existing prisons. It is necessary to demonstrate that the participants in this experiment transcended the conscious limits of their preconceived stereotyped roles and their awareness of the artificiality and limited duration of imprisonment. We feel there is abundant evidence that virtually all of the subjects at one time or another experienced reactions which went well beyond the surface demands of role-playing and penetrated the deep structure of the psychology of imprisonment.

Although instructions about how to behave in the roles of guard or prisoner were not explicitly defined, demand characteristics in the experiment obviously exerted some directing influence. Therefore, it is enlightening to look to

circumstances where role demands were minimal, where the subjects believed they were not being observed, or where they should not have been behaving under the constraints imposed by their roles (as in "private" situations), in order to assess whether the role behaviours reflected anything more than public conformity or good acting.

When the private conversations of the prisoners were monitored, we learned that almost all (a full 90%) of what they talked about was directly related to immediate prison conditions, that is, food, privileges, punishment, guard harassment, etc. Only one-tenth of the time did their conversations deal with their life outside the prison. Consequently, although they had lived together under such intense conditions, the prisoners knew surprisingly little about each other's past history or future plans. This excessive concentration on the vicissitudes of their current situation helped to make the prison experience more oppressive for the prisoners because, instead of escaping from it when they had a chance to do so in the privacy of their cells, the prisoners continued to allow it to dominate their thoughts and social relations. The guards too, rarely exchanged personal information during their relaxation breaks. They either talked about "problem prisoners", or other prison topics, or did not talk at all. There were few instances of any personal communication across the two role groups. Moreover, when prisoners referred to other prisoners during interviews, they typically deprecated each other, seemingly adopting the guards' negative attitude.

From post-experimental data, we discovered that when individual guards were alone with solitary prisoners and out of range of any recording equipment, as on the way to or in the toilet, harassment often was greater than it was on the "Yard". Similarly, video-taped analyses of total guard aggression showed a daily escalation even after most prisoners had ceased resisting and prisoner deterioration had become visibly obvious to them. Thus guard aggression was no longer elicited as it was initially in response to perceived threats, but was emitted simply as a "natural" consequence of being in the uniform of a "guard" and asserting the power inherent in that role. In specific instances we noted cases of a guard (who did not know he was being observed) in the early morning hours pacing the "Yard" as the prisoners slept—vigorously pounding his night stick into his hand while he "kept watch" over his captives. Or another guard who detained an "incorrigible" prisoner in solitary confinement beyond the duration set by the guards' own rules and then he conspired to keep him in the hole all night while attempting to conceal this information from the experimenters who were thought to be too soft on the prisoners.

In passing, we may note an additional point about the nature of role-playing and the extent to which actual behaviour is "explained away" by reference to it. It will be recalled that many guards continued to intensify their harassment and aggressive behaviour even after the second day of the study, when prisoner deterioration became marked and visible and emotional breakdowns began to occur (in the presence of the guards). When questioned after the study about their persistent affrontive and harrassing behaviour in the face of prisoner

emotional trauma, most guards replied that they were "just playing the role" of a tough guard, although none ever doubted the magnitude or validity of the prisoners' emotional response. The reader may wish to consider to what extremes an individual may go, how great must be the consequences of his behaviour for others, before he can no longer rightfully attribute his actions to "playing a role" and thereby abdicate responsibility.

When introduced to a Catholic priest, many of the role-playing prisoners referred to themselves by their prison number rather than their Christian names. Some even asked him to get a lawyer to help them get out. When a public defender was summoned to interview those prisoners who had not yet been released, almost all of them strenuously demanded that he "bail" them out immediately.

One of the most remarkable incidents of the study occurred during a parole board hearing when each of five prisoners eligible for parole was asked by the senior author whether he would be willing to forfeit all the money earned as a prisoner if he were to be paroled (released from the study). Three of the five prisoners said, "yes", they would be willing to do this. Notice that the original incentive for participating in the study had been the promise of money, and they were, after only four days, prepared to give this up completely. And, more surprisingly, when told that this possibility would have to be discussed with the members of the staff before a decision could be made, each prisoner got up quietly and was escorted by a guard back to his cell. If they regarded themselves simply as "subjects" participating in an experiment for money, there was no longer any incentive to remain in the study and they could have easily escaped this situation which had so clearly become aversive for them by quitting. Yet, so powerful was the control which the situation had come to have over them, so much a reality had this simulated environment become, that they were unable to see that their original and singular motive for remaining no longer obtained, and they returned to their cells to await a "parole" decision by their captors.

The reality of the prison was also attested to by our prison consultant who had spent over 16 years in prison, as well as the priest who had been a prison chaplain and the public defender who were all brought into direct contact with our simulated prison environment. Further, the depressed affect of the prisoners, the guards' willingness to work overtime for no additional pay, the spontaneous use of prison titles and I.D. numbers in non role-related situations all point to a level of reality as real as any other in the lives of all those who shared this experience.

To understand how an illusion of imprisonment could have become so real, we need now to consider the uses of power by the guards as well as the effects of such power in shaping the prisoner mentality.

Pathology of power

Being a guard carried with it social status within the prison, a group identity (when wearing the uniform), and above all, the freedom to exercise an unprecedented degree of control over the lives of other human beings. This

control was invariably expressed in terms of sanctions, punishment, demands and with the threat of manifest physical power. There was no need for the guards to rationally justify a request as they do in their ordinary life and merely to make a demand was sufficient to have it carried out. Many of the guards showed in their behaviour and revealed in post-experimental statements that this sense of power was exhilarating.

The use of power was self-aggrandising and self-perpetuating. The guard power, derived initially from an arbitrary label, was intensified whenever there was any perceived threat by the prisoners and this new level subsequently became the baseline from which further hostility and harassment would begin. The most hostile guards on each shift moved spontaneously into the leadership roles of giving orders and deciding on punishments. They became role models whose behaviour was emulated by other members of the shift. Despite minimal contact between the three separate guard shifts and nearly 16 hours a day spent away from the prison, the absolute level of aggression as well as more subtle and "creative" forms of aggression manifested, increased in a spiralling function. Not to be tough and arrogant was to be seen as a sign of weakness by the guards and even those "good" guards who did not get as drawn into the power syndrome as the others respected the implicit norm of *never* contradicting or even interfering with an action of a more hostile guard on their shift.

After the first day of the study, practically all prisoner's rights (even such things as the time and conditions of sleeping and eating) came to be redefined by the guards as "privileges" which were to be earned for obedient behaviour. Constructive activities such as watching movies or reading (previously planned and suggested by the experimenters) were arbitrarily cancelled until further notice by the guards—and were subsequently never allowed. "Reward", then became granting approval for prisoners to eat, sleep, go to the toilet, talk, smoke a cigarette, wear glasses or the temporary diminution of harassment. One wonders about the conceptual nature of "positive" reinforcement when subjects are in such conditions of deprivation, and the extent to which even minimally acceptable conditions become rewarding when experienced in the context of such an impoverished environment.

We might also question whether there are meaningful non-violent alternatives as models for behaviour modification in real prisons. In a world where men are either powerful or powerless, everyone learns to despise the lack of power in others and in oneself. It seems to us, that prisoners learn to admire power for its own sake—power becoming the ultimate reward. Real prisoners soon learn the means to gain power whether through ingratiation, informing, sexual control of other prisoners or development of powerful cliques. When they are released from prison, it is unlikely they will ever want to feel so powerless again and will take action to establish and assert a sense of power.

The pathological prisoner syndrome

Various coping strategies were employed by our prisoners as they began to react to their perceived loss of personal identity and the arbitrary control of their

lives. At first they exhibited disbelief at the total invasion of their privacy, constant surveillance and atmosphere of oppression in which they were living. Their next response was rebellion, first by the use of direct force, and later with subtle divisive tactics designed to foster distrust among the prisoners. They then tried to work within the system by setting up an elected grievance committee. When that collective action failed to produce meaningful changes in their existence, individual self-interests emerged. The breakdown in prisoner cohesion was the start of social disintegration which gave rise not only to feelings of isolation but depreciation of other prisoners as well. As noted before, half the prisoners coped with the prison situation by becoming extremely disturbed emotionally—as a passive way of demanding attention and help. Others became excessively obedient in trying to be "good" prisoners. They sided with the guards against a solitary fellow prisoner who coped with his situation by refusing to eat. Instead of supporting this final and major act of rebellion, the prisoners treated him as a trouble-maker who deserved to be punished for his disobedience. It is likely that the negative self-regard among the prisoners noted by the end of the study was the product of their coming to believe that the continued hostility toward all of them was justified because they "deserved it" [9]. As the days wore on, the model prisoner reaction was one of passivity, dependence and flattened affect.

Let us briefly consider some of the relevant processes involved in bringing about these reactions.

Loss of personal identity. Identity is, for most people, conferred by social recognition of one's uniqueness, and established through one's name, dress, appearance, behaviour style and history. Living among strangers who do not know your name or history (who refer to you only by number), dressed in a uniform exactly like all other prisoners, not wanting to call attention to one's self because of the unpredictable consequences it might provoke—all led to a weakening of self identity among the prisoners. As they began to lose initiative and emotional responsivity, while acting ever more compliantly, indeed, the prisoners became deindividuated not only to the guards and the observers, but also to themselves.

Arbitrary control. On post-experimental questionnaires, the most frequently mentioned aversive aspect of the prison experience was that of being subjugated to the apparently arbitrary, capricious decisions and rules of the guards. A question by a prisoner as often elicited derogation and aggression as it did a rational answer. Smiling at a joke could be punished in the same way that failing to smile might be. An individual acting in defiance of the rules could bring punishment to innocent cell partners (who became, in effect, "mutually yoked controls"), to himself, or to all.

As the environment became more unpredictable, and previously learned assumptions about a just and orderly world were no longer functional, prisoners ceased to initiate any action. They moved about on orders and when in their cells rarely engaged in any purposeful activity. Their zombie-like reaction was the functional equivalent of the learned helplessness phenomenon reported by

Seligman and Groves [10]. Since their behaviour did not seem to have any contingent relationship to environmental consequences, the prisoners essentially gave up and stopped behaving. Thus the subjective magnitude of aversiveness was manipulated by the guards not in terms of physical punishment but rather by controlling the psychological dimension of environmental predictability [11].

Dependency and emasculation. The network of dependency relations established by the guards not only promoted helplessness in the prisoners but served to emasculate them as well. The arbitrary control by the guards put the prisoners at their mercy for even the daily, commonplace functions like going to the toilet. To do so, required publicly obtained permission (not always granted) and then a personal escort to the toilet while blindfolded and handcuffed. The same was true for many other activities ordinarily practised spontaneously without thought, such as lighting up a cigarette, reading a novel, writing a letter, drinking a glass of water or brushing one's teeth. These were all privileged activities requiring permission and necessitating a prior show of good behaviour. These low level dependencies engendered a regressive orientation in the prisoners. Their dependency was defined in terms of the extent of the domain of control over all aspects of their lives which they allowed other individuals (the guards and prison staff) to exercise.

As in real prisons, the assertive, independent, aggressive nature of male prisoners posed a threat which was overcome by a variety of tactics. The prisoner uniforms resembled smocks or dresses, which made them look silly and enabled the guards to refer to them as "sissies" or "girls". Wearing these uniforms without any underclothes forced the prisoners to move and sit in unfamiliar, feminine postures. Any sign of individual rebellion was labelled as indicative of "incorrigibility" and resulted in loss of privileges, solitary confinement, humiliation or punishment of cell mates. Physically smaller guards were able to induce stronger prisoners to act foolishly and obediently. Prisoners were encouraged to belittle each other publicly during the counts. These and other tactics all served to engender in the prisoners a lessened sense of their masculinity (as defined by their external culture). It follows then, that although the prisoners usually outnumbered the guards during line-ups and counts (nine v. three) there never was an attempt to directly overpower them. (Interestingly, after the study was terminated, the prisoners expressed the belief that the basis for assignment to guard and prisoner groups was physical size. They perceived the guards were "bigger", when, in fact, there was no difference in average height or weight between these randomly determined groups.)

In conclusion, we believe this demonstration reveals new dimensions in the social psychology of imprisonment worth pursuing in future research. In addition, this research provides a paradigm and information base for studying alternatives to existing guard training, as well as for questioning the basic operating principles on which penal institutions rest. If our mock prison could generate the extent of pathology it did in such a short time, then the punishment of being imprisoned in a real prison does not "fit the crime" for

most prisoners—indeed, it far exceeds it! Moreover, since prisoners and guards are locked into a dynamic, symbiotic relationship which is destructive to their human nature, guards are also society's prisoners.

Shortly after our study was terminated, the indiscriminate killings at San Quentin and Attica occurred, emphasising the urgency for prison reforms that recognise the dignity and humanity of both prisoners and guards who are constantly forced into one of the most intimate and potentially deadly encounters known to man.

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A Re-analysis of the Reliability of Psychiatric Diagnosis

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A Re-analysis of the Reliability of Psychiatric Diagnosis

By ROBERT L. SPITZER and JOSEPH L. FLEISS

INTRODUCTION

Classification systems such as diagnosis have two primary properties, reliability and validity. Reliability refers to the consistency with which subjects are classified; validity, to the utility of the system for its various purposes. In the case of psychiatric diagnosis, the purposes of the classification system are communication about clinical features, aetiology, course of illness and treatment. A necessary constraint on the validity of a system is its reliability. There is no guarantee that a reliable system is valid, but assuredly an unreliable system must be invalid.

Studies of the reliability of psychiatric diagnosis provide information on the upper limits of its validity. This paper discusses some of the difficulties in appraising diagnostic reliability, offers a re-analysis of available data from the literature, and suggests a possible course of action to improve psychiatric diagnosis.

Zubin (1967) reviewed the major studies of the reliability of psychiatric diagnosis performed until 1966. He noted that diagnostic reliability is referred to in three different ways: agreement between independent diagnosticians examining the same patients, stability in diagnosis over time, and similarity in diagnostic frequencies for comparable samples. It is the first sense—interjudge agreement—that is fundamental.

There are inherent limitations to the interpretation of the other two uses of the term. For agreement between initial and subsequent diagnosis, one must consider the possibility that some of the disagreement may be due to changes in the patient's condition and not just to unreliability. The difficulty with interpreting differences in distributions between populations is that one is forced to assume, often without evidence, that the populations do not differ in psychopathology, when in fact they may.

MEASURING DIAGNOSTIC RELIABILITY

More studies of diagnostic reliability have been of the interjudge type than of either of the other two types. There are two features of the data reported in these studies, however, which limit an assimilation of their results. One is the choice of an index of agreement and the other is a failure to take into account the base rates of the various diagnoses. The hypothetical data of Table I will illustrate some of the complexities involved in measuring diagnostic agreement.

TABLE I
Hypothetical data (in proportions) for agreement on three diagnoses by two diagnosticians

Diagnostician	Diagnostician B			Total
	A	Psychosis	Neurosis	
Psychosis ..	.75	.01	.04	.80
Neurosis ..	.05	.04	.01	.10
Organic ..	0	0	.10	.10
Total ..	.80	.05	.15	1.00

To measure the degree of agreement on a single diagnosis (e.g. neurosis), one may collapse the original table into a 2×2 table as shown in Table II. Some studies (Schmidt and Fonda, 1956; Kretzman, 1961) report the proportion of overall agreement, i.e., the proportion of all patients on whom there is agreement as to the

TABLE II
Hypothetical data (in proportions) for agreement on neurosis by two diagnosticians, from Table I

Diagnostician	Diagnostician B			Total
	A	Neurosis	Other	
Neurosis ..	.04	.06	.10	
Other ..	.01	.89	.90	
Total ..	.05	.95	1.00	

presence or the absence of the diagnosis. For the data of Table II, the proportion of overall agreement is $.04 + .89 = .93$.

Other studies (Beck *et al.*, 1962; Sandifer *et al.*, 1964) report the proportion of specific agreement, which is an index obtained by ignoring all subjects agreed upon as not having the given diagnosis (in Table II, ignoring the 89 per cent of patients agreed upon as not having a neurosis). One first determines the average proportion of all subjects given the specified diagnosis by either diagnostician (for the data of Table II, this proportion is $\frac{1}{2} (.10 + .05) = .075$), and then finds the proportion agreed upon as having that diagnosis (for the present example, this proportion is $.04$). The proportion of specific agreement is the ratio of these two proportions. For the data of Table II the resulting value is $.04/.075 = .53$. This index can be interpreted as the probability that one diagnostician will make the specified diagnosis given that the other has done so.

Table III presents the values of the two indices of agreement for the three diagnoses of Table I. The two indices order the diagnoses quite differently. The proportions of overall agreement seem to be similar, with that for organic brain syndrome being best and that for neurosis being second best. The proportions of specific agreement are of different orders of magnitude, and indicate that agreement on psychosis is best and agreement on neurosis poorest.

TABLE III
Indices of agreement between two diagnosticians on three diagnoses of Table I

Diagnosis	Proportion of overall agreement		Proportion of specific agreement		Kappa
	Chance	Obtained	Chance	Obtained	
	ex- pected	ex- pected	ex- pected	ex- pected	
Psychosis ..	.90	.68	.94	.80	.69
Neurosis ..	.93	.86	.53	.07	.50
Organic ..	.95	.78	.80	.12	.77

The two indices are obviously not comparable. A further complication is that neither can be interpreted independently of the rates at which the diagnoses are made. For one

thing, the values associated with the poorest possible agreement may be appreciably greater than 0. For example, given that the two diagnosticians diagnose psychosis 80 per cent of the time, the lowest value possible for the proportion of overall agreement on psychosis is .60 and the lowest value possible for the proportion of specific agreement on psychosis is .75.

Secondly, some degree of agreement is to be expected solely on the basis of chance. To take an extreme example, suppose that diagnosticians A and B jointly diagnosed a sample of patients without even examining them, but merely kept to their usual base rates. One would then expect that 64 per cent of the time ($= .8 \times .8$), they would agree on the diagnosis of psychosis. Given their base rates, only agreement beyond that expected by chance alone would be meaningful.

A statistic for measuring agreement on nominal categories such as diagnosis, which incorporates a correction for chance, was originally proposed by Cohen (1960) and later generalized by Spitzer *et al.* (1967a), Cohen (1968), Fleiss (1971), Light (1971), and Fleiss *et al.* (1972). The statistic, named kappa, contrasts the observed proportion of agreement with the proportion expected by chance alone by means of the formula $\kappa = (p_o - p_e) / (1 - p_e)$, where p_o is the observed proportion of agreement and p_e is the proportion expected by chance.

Whether p_o is taken to be the proportion of overall agreement or the proportion of specific agreement, one obtains identically equal values of kappa after correcting for chance. The term p_e is obtained by determining expected cell frequencies (as one does, e.g., in calculating the standard chi square statistic), and then calculating the proportion of agreement on the table with expected frequencies. Kappa varies from negative values for less than chance agreement, though 0 for chance agreement, to $+1.0$ for perfect agreement. Kappa may be interpreted as an intra-class correlation coefficient (Fleiss and Cohen, 1973).

Table III gives the chance expected values of the two proportions of agreement and the resulting values of kappa. The ordering effected by kappa is different from either of the other two order-

ings. After correcting for chance, one finds agreement to be best for organic brain syndrome, next best for psychosis, and poorest for neurosis.

STUDIES OF DIAGNOSTIC RELIABILITY

The major studies of the reliability of psychiatric diagnosis, fortunately, report both the base rates and the diagnostic agreement values, thus permitting the calculation of chance corrected agreement, kappa.

(I) Schmidt and Fonda (1956) studied 426 patients admitted to a state hospital in Connecticut. Each patient was diagnosed within the first week of admission by one of a group of eight psychiatric residents, and within the third week by one of three senior psychiatrists. The data available to the psychiatric residents were the usual admission reports as well as their own physical and mental status examination. The data available to the senior psychiatrist included all of the data available to the psychiatric residents as well as additional data that had been collected by other staff members and by themselves during their own brief examinations.

(II) Kreitman (1961) studied 90 consecutive new referrals to an out-patient clinic in England. Each patient was interviewed by one of three consulting psychiatrists, and completely independently by one of two research psychiatrists. The only sources of information to both sets of psychiatrists were the patient, a family member and a letter of referral.

(III) Beck *et al.* (1962) studied 153 patients randomly selected from new referrals to two out-patient services in Philadelphia. Each patient was randomly assigned to be interviewed by two of four experienced psychiatrists. Each psychiatrist conducted an independent interview and apparently had no source of information other than the patient himself.

(IV) Sandifer *et al.* (1964) studied 91 patients from three hospitals in North Carolina. A psychiatric resident presented material about each patient to a group of ten experienced psychiatrists. Following each presentation the patient was interviewed by one of the 10 diagnosticians. After jointly observing the

patient, each diagnostician made his own diagnosis.

(V) The U.S.-U.K. Diagnostic Project (Cooper *et al.*, 1972) conducted a series of studies comparing diagnostic practice in the United States and the United Kingdom. In one study, 250 consecutive admissions to a single New York State mental hospital and 250 consecutive admissions to a London area mental hospital were diagnosed by the hospital physician according to his usual practices, and independently by members of the project, who used a structured interview schedule. In a second study, 192 consecutive admissions to nine New York State mental hospitals and 174 consecutive admissions to nine London area mental hospitals were studied similarly. Most of the project members had received their psychiatric training in London. Because the results of the two studies within for each city were similar, only mean agreement values for the New York and the London samples are reported. The agreement measured is between the project's and the hospitals' psychiatrists.

(VI) Spitzer *et al.* (in preparation) studied 100 consecutive admissions to the Washington Heights Community Service of the New York State Psychiatric Institute. Each patient was diagnosed by one of 15 admitting residents within the first few days of admission. Each patient was also diagnosed up to three months after admission by one of two supervising psychiatrists after reviewing the case record prepared by the admitting resident. No attempt was made to prevent the admitting therapist from discussing his diagnostic formulation with the supervising psychiatrist. It is assumed that such discussions often took place, though not invariably.

RESULTS

Table IV presents the values of kappa calculated from the data presented in the original reports. Values are reported only for those categories for which original data were provided. Although the different studies used slightly different classification schemes (American Psychiatric Association, 1952 and 1968; H.M. Stationery Office, 1968), the results are reported for broad categories whose definitions

TABLE IV
Kappa coefficients of agreement on broad and specific diagnostic categories from six studies

Category	Study						Mean
	I	II	III	IV	New York	London	
Mental deficiency72		.72
Organic brain syndrome ..		.82	.90				.77
Acute brain syndrome ..				.44			.44
Chronic brain syndrome ..				.64			.64
Alcoholism74	.68	.71
Psychosis73	.62			
Schizophrenia ..			.77		.42	.32	.55
Affective disorder44	.59
Neurotic depression ..				.47		.20	.26
Psychotic depression ..					.19	.24	.24
Manic-depressive ..					.33		.33
Involutional depression ..				.38	.21		.30
Personality disorder or Neurosis ..		.63			.51	.24	.44
Personality disorder33	.19	.22
Sociopathic ..					.53		.53
Neurosis52			
Anxiety reaction ..					.45	.26	.48
Psychophysiological reaction ..					.38		.38

are similar in all of the classification systems used.

There are no diagnostic categories for which reliability is uniformly high. Reliability appears to be only satisfactory for three categories: mental deficiency, organic brain syndrome (but not its subtypes), and alcoholism. The level of reliability is no better than fair for psychosis and schizophrenia and is poor for the remaining categories. Using uncorrected agreement values, Zubin (1967) found agreement on the combined category of personality disorder and neurosis to be almost as high as for psychosis. It is clear from Table IV that after correction for chance, agreement on the combined category is poorer than on psychosis.

With the exception of the U.S.-U.K. study (number V) of the New York hospitals, all the studies summarized here involved diagnosticians of similar background and training. In addition,

special efforts were made in some of the studies to have the participant diagnosticians come to some agreement on diagnostic principles prior to the beginning of the study. One would have expected these features of similar background and prior consensus on principles to contribute to good reliability. One can only assume, therefore, that agreement between heterogeneous diagnosticians of different orientations and backgrounds, as they act in routine clinical settings, is even poorer than is indicated in Table IV. Further, there appears to have been no essential change in diagnostic reliability over time (the studies summarized in Table IV were arrayed in chronological order).

DISCUSSIONS AND CONCLUSIONS

In spite of the obvious unreliability of psychiatric diagnosis, there exists evidence for sensitivity to and agreement on the major psychiatric

problems experienced by a patient. Gurland *et al.* (1972), in a detailed analysis of data on the patients in the U.S.-U.K. diagnostic study, found that hospital psychiatrists were sensitive to patient's psychopathology. A number of patients in the New York sample were identified by the project psychiatrists as suffering from severe depression but not from any signs of schizophrenia. The hospital psychiatrists diagnosed most of these severe depressives as schizophrenic, but treated the majority of them with anti-depressant medication or with ECT. The hospital staffs obviously recognized the depression in their patients, when it was present, but failed to incorporate that recognition into their diagnoses.

As one of its studies of diagnostic practice, the U.S.-U.K. diagnostic project showed videotape recordings of a small number of psychiatric interviews to large numbers of American, British, and Canadian psychiatrists (Copeland *et al.*, 1971; Kendell *et al.*, 1971; Sharpe *et al.*, in press). Some of the interviews gave rise to strikingly large diagnostic differences between the three countries; in one case the percentage of psychiatrists diagnosing schizophrenia ranged from 2 per cent in the British Isles to 69 per cent in the United States, the proportion for Canadian psychiatrists being intermediate. In another study, Sandifer *et al.* (1968) reported substantial diagnostic differences between American, English and Scottish psychiatrists.

The participant psychiatrists in the videotape studies also judged the presence or absence of technically described psychiatric signs and symptoms, and made ratings on the Inpatient Multidimensional Psychiatric Scales (IMPS) of Lorr *et al.* (1962), a series of 89 rating scales defined in non-technical language. As Katz *et al.* (1969) found in an earlier study, the U.S.-U.K. study found poor agreement between psychiatrists in judging the presence or absence of symptoms described in technical terms. With respect to ratings on the IMPS, however, there were striking similarities in the psychiatrists' perceptions of psychopathology. Although American psychiatrists tended to rate the presence of more severe pathology than their British and Canadian colleagues, all psychi-

atrists were in excellent agreement as to the most serious and the least serious problem areas. In other words, mean profiles across the factors of the IMPS were at different mean levels, but were effectively parallel. This parallelism obtained for each of the tapes shown, even though the profile for each tape highlighted different aspects of psychopathology.

The reliability of psychiatric diagnosis as it has been practised since at least the late 1950's is not good. It is likely that the reasons for diagnostic unreliability are the same now as when Beck *et al.* (1962) studied them. They found that a significant amount of the variability among diagnosticians was due to differences in how they elicited and evaluated the necessary information, and that an even larger amount was due to inherent weakness and ambiguities in the nomenclature. Since that time there have been two major innovations which may provide solutions to these problems.

Several investigators have developed structured interview schedules which an interviewer uses in his examination of the patient (Spitzer *et al.*, 1967b and 1970; Wing *et al.*, 1967). These techniques provide for a standardized sequence of topics, and ensure that variability among clinicians in how they conduct their interviews and in what topics they cover is kept to a minimum. For rating the pathology observed, these schedules contain pre-coded items which explicitly define the behaviours to be rated rather than relying on technical terms which have different meanings to different clinicians.

With respect to improving the nomenclature, the St. Louis group (Feighner *et al.*, 1972) has offered a system limited to 16 diagnoses for which they believe strong validity evidence exists, and for which specified requirements are provided. Whereas in the standard system the clinician determines to which of the various diagnostic stereotypes his patient is closest, in the St. Louis system the clinician determines whether his patient satisfies explicit criteria. For example, for a diagnosis of the depressive form of primary affective disorder the three requirements are dysphoric mood, a psychiatric illness lasting at least one month with no other pre-existing psychiatric condition, and at least

five of the following eight symptoms: poor appetite or weight loss; sleep difficulty; loss of energy; agitation or retardation; loss of interest in usual activities or decrease in sexual drive; feelings of self-reproach or guilt; complaints of or actually diminished ability to think or concentrate; and thoughts of death or suicide.

A consequence of the St. Louis approach is the necessity for an 'undiagnosed psychiatric disorder' category for those patients who do not meet any of the criteria for the specified diagnoses. In actual use, this category is applied to 20–30 per cent of newly-admitted in-patients.

These two approaches, structuring the interview and specifying all diagnostic criteria, are being merged in a series of collaborative studies on the psychobiology of the depressive disorders sponsored by the N.I.M.H. Clinical Research Branch. We are confident that this merging will result not only in improved reliability but in improved validity which is, after all our ultimate goal.

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A synopsis of this paper was published in the June 1974 *Journal*.

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(Received 17 January 1974)

B *Lab Activities*

Accuracy of Observation

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ACTIVITY

2

ACCURACY OF OBSERVATION

Paul J. Woods

Concept

This activity provides an intriguing introduction to discussions of the accuracy and reliability of humans as observers of behavioral events and environmental characteristics.

Materials Needed

A portable tape recorder, some imagination, and decent weather.

Instructions

Introduce the activity to the students simply by explaining that you are going to test their powers of observation—their skill as observers. Tell them that you are going to ask a colleague of yours (or a particular member of the class) to lead the class on a 15- or 20-minute journey around the school grounds. Inform the students that nothing unusual has been planned, and instruct them simply to observe the normal activities and circumstances in which they find themselves. They can be told that following the walk, you will be asking them some questions about their observations.

As your colleague or class member is leading the class on the journey around the campus, follow a short distance behind—close enough to be able to observe the class and its environment but sufficiently removed to be able to speak quietly into a portable tape recorder without being heard by the class. As the walk proceeds, record approximately 50–60 questions on the tape, spontaneously drawn from your own observations of events and objects. (You may wish to prearrange the route to be followed and walk it through once by yourself to practice the questioning routine.) Each question you record should be followed immediately by the answer. Questions should be completely factual and objectively confirmable. Following are some examples:

“How many planes flew overhead as we reached the playing field?”

“In what activity was the first group of students encountered by the class engaged?”

“Where was the class when the nearby truck backfired?”

“What color was the car that passed the class at the entrance to the parking lot?”

Avoid questions with answers that are a matter of opinion (“Was it a nice day?” “Did it seem warm?”).

Upon returning to the classroom, play each recorded question in turn and stop the recorder before the correct answer is played. Have students write their answers down on paper, and then play back the correct answer. On the chalkboard, keep a record of the number of right and wrong answers to each question.

Discussion

The broad variation in student responses should provide gist for a discussion of (a) the reliability of human observations, (b) the “truth” of courtroom testimony, (c) the benefits of structuring the collection of

Suggested Background Readings

observations (perhaps by specifying beforehand what information is to be sought), and (d) the value and necessity of independent replication and confirmation of answers. Comparing the accuracy of the teacher's answers with that of the students' answers should provide compelling demonstration of the value of specifying the information to be sought before it is collected.

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Con

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Operant Conditioning: Role in Human Behavior

ACTIVITY
23

OPERANT CONDITIONING: ROLE IN HUMAN BEHAVIOR

Edward Stork

Concept

From infancy onward, conditioning plays a major role in our lives. Yet most of us tend to downplay that role, possibly feeling that to admit such control over our behavior would be to admit that our lives are overly determined. Often when students read in their texts about classical and operant conditioning, they tend to associate that type of learning with infrahuman animals. That is, "Dogs, rats, and pigeons are affected by conditioning, but it doesn't play any role in my behavior." This activity is designed to provide a starting point for discussion of conditioning in humans.

Instructions

While discussing operant conditioning, interrupt your lecture with "Oh, by the way, before I forget again" and then ask a question to which you know you will get either an almost totally positive or negative response. For example, if your students are primarily seniors, you might say, "I was supposed to ask, how many of you have signed for a diploma for graduation?" All students will usually raise a hand. Then tell them to hold the position they are in and ask if anyone told them to raise their hands or even mentioned raising hands.

Discussion

The usual response is a chorus of groans as the students recognize that they have been "used." Discuss the activity as an example of human conditioning. Ask students to generate other examples that describe conditioning in humans. You can use the ensuing discussion as a bridge to talking about conditioning techniques used with humans in behavior therapy.

Suggested Background Readings

- Bellack, A. S., & Hersen, M. *Behavior modification: An introductory textbook*. New York: Oxford University Press, 1977.
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Operant Conditioning Demonstration

ACTIVITY

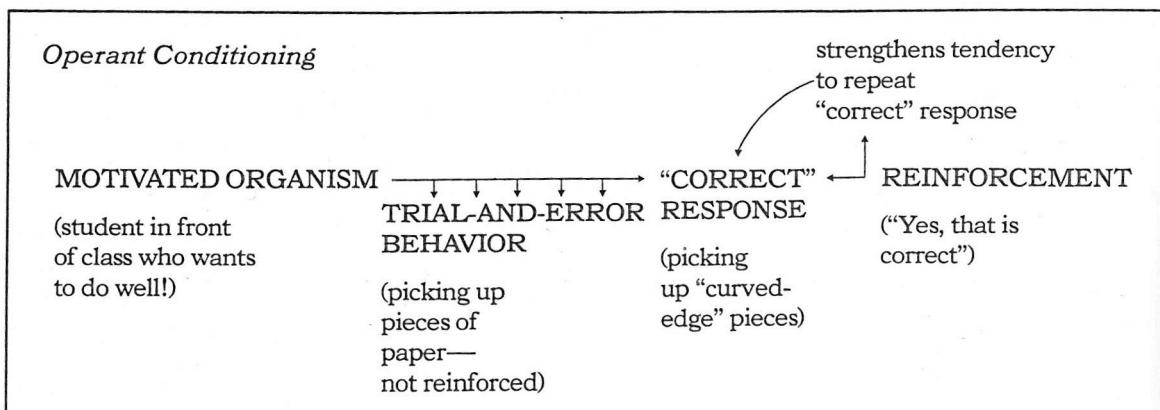
24

OPERANT CONDITIONING DEMONSTRATION

Patricia Keith-Spiegel

Concept

This classroom demonstration is a simple way to illustrate the process of operant (instrumental) conditioning with a human being. (It has never failed in 14 years, although some volunteers take longer than others to "learn.")

**Instructions**

Cut out approximately 40 pieces of paper 2 inches \times 2 inches. Then cut these 2-inch squares into a variety of shapes. Twenty of the pieces should have only straight edges, and 20 pieces should have at least one curved side each. (Save them in an envelope for repeated use.) Mix up the paper shapes and spread them out on a desk or table top. Ask for a student volunteer. Tell the volunteer to start picking up the pieces of paper one at a time and place them in a box. Each time the student picks one of the pieces that has a curve on it, say "Yes, that is correct." Each time the student picks up a completely straight-edged piece, give no reinforcement at all. Usually within 10 to 15 draws, the student will "learn" what has been defined as the "correct response" and will swiftly continue picking up pieces until all of the curved pieces are gone. (The students observing usually begin to approvingly giggle as the volunteer receives rapid positive reinforcements.)

Discussion

Ask the student to tell the class what she or he has learned. Be sure to point out to the class that the *only* input given the student (aside from the initial direction to pick up pieces) was in the form of Positive Reinforcement. Nothing was said about shapes or any other facet of the task. Ask the student to relate to the class what went through his or her mind during the learning process. Various trial-and-error strategies often emerge here (e.g., "At first I thought it was the larger pieces that were correct because the first big one I picked up was correct.") The basic operant-conditioning diagram provided here is helpful in summarizing for the class what they have just witnessed.

**Suggested
Background
Readings**

- Keller, F. S. *Learning: Reinforcement theory* (2nd ed.). New York: Random House, 1969.
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Defense Mechanisms

ACTIVITY
75
DEFENSE MECHANISMS
Jack J. Greider

Concept

This activity is designed to increase student familiarity with the ways in which defense mechanisms are used. In addition to being a good teaching tool, the activity allows for the expression of a considerable amount of creativity on the part of the students. Defense mechanisms covered include regression, rationalization, repression, projection, fantasy, compensation, identification, and reaction formation.

Instructions

Ask for eight student volunteers for a role-playing exercise. I usually choose four males and four females, since I have found mixed pairs to work best in this activity. Have these eight students leave the room and go with them to explain what they are to do. First group them in male-female pairs and assign two of the defense mechanisms to each pair. Instruct each pair of students to make up two skits, one for each of the mechanisms. I usually allow them about 15 minutes to prepare their skits. While they are working, go back into the room, list the defense mechanisms on the chalkboard, and discuss each one briefly with the class. Then call the role players back into the room to put on their skits. Have each pair perform one of their two skits, and after going through the pairs have each pair do their second skit. The job of the class is to guess which mechanism each skit represents.

Discussion

In discussion you can point out the place of defense mechanisms in personality theory. You should comment on the role of defense mechanisms in normal functioning. When are these mechanisms helpful? When are they harmful? Conduct an anonymous survey of your students asking them to indicate whether or not they have used any of the defense mechanisms during the past year. Do they use some defense mechanisms more than others? If so, which ones?

**Suggested
Background
Readings**

- Clum, G. A., & Clum, J. Mood variability and defense mechanism preference. *Psychological Reports*, 1973, 32, 910.
Houston, J. P., Bee, H., Hatfield, E., & Rimm, D. C. *Invitation to psychology*. New York: Academic Press, 1979. (chap. 11)
Viney, L. L., & Manton, M. Defense mechanism preferences and the expression of anxiety. *Social Behavior and Personality*, 1974, 2, 50-55.
Weiner, B. et al. *Discovering psychology*. New York: St. Martin's Press, 1977. (chap. 15)

Concept**Instructions**

To Sleep, Perchance to Dream

ACTIVITY 80

TO SLEEP, PERCHANCE TO DREAM

Ludy T. Benjamin, Jr.

Concept

There are probably more myths and misunderstandings about sleep and dreaming than about any other aspect of human behavior except sex. For most people, sleep and dreaming will occupy one third of their lives, yet few individuals are aware of even the most rudimentary information about this activity. For example, consider the following facts: Apparently everyone dreams; that is, there are no nondreamers, only nonrecallers. In an 8-hour night of sleep most people will have from four to five dreams, usually on quite unrelated topics. The great majority of dreams are in color. Sleep learning apparently does not occur. Dreams are not always filled with easily interpretable psychological meanings, as popular literature would have one believe.

The study of sleep and dreaming is still in its infancy. Most of what we know about this area is the result of research occurring in the last 25 years and is principally due to the development of electrophysiological techniques (particularly the electroencephalograph, or EEG) and the discovery, in 1953, of rapid eye movements (REMs) during sleep.

The purposes of this exercise are (a) to help students focus attention on their own sleep and dreaming patterns, (b) to generate data for class discussion, (c) to introduce students to the concept of data collection in sleep and dreaming, (d) to illustrate appropriate statistical measures for summarizing the data, and (e) to aid students in understanding the interpretation of data in general and these data in particular.

Preparation of Class

Pass out the "Sleep and Dreaming Record" to each student, providing multiple copies—one for each day that records will be kept (14 consecutive nights provides a good sample). Tell the students why the data are being collected and indicate that participation is voluntary. Explain that they can conceal their identity by marking their records with a number (six or seven digits in length) that they make up on their own. This procedure allows them to identify their statistics in reference to others in class when the summary data are provided later. Note that it takes only about 5 minutes each day to complete the record.

Instructions

Ask all students to begin their records on the same day and to keep their record sheets at home. Request that during the time the records are being kept, discussion among students regarding their sleep and dreaming patterns be minimal to avoid unintentional influences on the data. Give explicit instructions on record keeping. (It is a good idea to have one "practice run" to insure that everyone understands the record-keeping system before continuing for 14 days.) The record provided is only a sample. Feel free to modify it as appropriate.

When the time period is completed and students have turned in all of their records, the tedious part begins for the teacher—the

Discussion

summarization of the data, for which a calculator is most helpful. Each student's records should be summarized separately, and data should be analyzed for the group as a whole. A summary sheet for the students should then be prepared, which lists everyone who participated (by number) and provides the group analyses. For example, Student # 107654 can examine that column number of the summary sheet to find a mean sleep time of 7.3 hours (over 14 days), with a range of 5.6–9.7 hours. The student can then compare these figures with those of other students and with those for the class as a whole, based on the group data.

Sleep and Dreaming Record

Student Number _____ Date _____

1. Total sleep time (in hours) _____. On the time line below, block out your sleep periods, including naps.

6:00 10:00 2:00 6:00 10:00 2:00 6:00
p.m. p.m. a.m. a.m. a.m. p.m. p.m.

2. Total number of awakenings during major sleep period. _____. (Do not count the final morning awakening.)
3. On the scale below, rate the quality of your night's sleep (in your opinion). Circle one of the numbers from plus four to minus four.

bad -4 -3 -2 -1 0 +1 +2 +3 +4 good

4. In your judgment, how many separate dreams can you recall at least a fragment of? _____
5. It is possible that you will recall some of your dreams better than others. Using percentages, estimate the amount of each dream recalled.

Dream 1 _____ Dream 2 _____ Dream 3 _____ Dream 4 _____

6. How many of these dreams could you relate to presleep experiences of the dream day? _____
7. Did you appear as a character in the dreams you recall? In how many? _____
8. How many of your dreams were in color? _____
9. Were there stimuli in your dreams of a nonvisual nature? Check the following if appropriate.

sound _____ taste _____ touch _____ smell _____

The data students generate will add considerable personal interest to the topic of sleep and dreaming. Further, the statistical treatments will help them understand how data are summarized and analyzed to make them more meaningful. It might be useful to save the summary statistics from classes for comparison with those of future classes.

Discussion

Optional

Although it is not necessary, teachers may wish to provide some statistical measures of relationship between some of the variables for which they have collected data by using the technique of correlation. For example, is there a relationship between the number of hours people sleep and the number of dreams they recall? Or is there a relationship between the subjective sleep quality rating and the number of awakenings one experiences during the night? A number of correlational analyses can be computed to answer these and other questions. To compute these values, a calculator is needed. Some calculators have a built-in correlation function; otherwise, the computational formula in Appendix A should be used. It is important to remember that correlation is a measure of the degree to which two variables are related and does not necessarily specify the *nature* of the relationship. That is, one *cannot* assume that if two variables are shown by correlation to be related, that the relationship is one of cause and effect.

Concept**Suggested
Background
Readings**

Dement, W. C. *Some must watch while some must sleep*. San Francisco:

Freeman, 1974.

Webb, W. B. *Sleep: The gentle tyrant*. Englewood Cliffs, N.J.: Prentice-Hall, 1975.

Instruction

Mental Illness

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ACTIVITY

81

MENTAL ILLNESS

James M. Gardner

Concept

We often make judgments about the behavior of other people, determining whether particular acts were or were not appropriate. Occasionally we may even decide, based on our observations, that someone is "mentally ill." This exercise offers a classroom opportunity to study such attributions.

Instructions

Ask for six volunteers to play roles in a skit. Take them out of the room and have them choose a role from six 3 × 5 inch cards bearing the following descriptions:

1. You are an escaped convict, previously convicted of murder.
2. You are a successful business executive whose spouse just announced the existence of a love affair, whose child is in the hospital, and whose car broke down this morning.
3. You are married with two children and unemployed; you desperately need a job and are on your way to an interview.
4. You are on your way to a sale.
5. You are lonely, have few friends, became bored watching TV, and are going somewhere just to have something to do.
6. You are waiting at the bus stop for the bus. Your role is to try to engage each of the waiting passengers in conversation so that the class can observe how they act. Some questions that you might ask are: Do you have the proper time? Does the bus usually run late?

While the actors study their roles, return to the room and instruct the other students to observe closely the behavior of each actor. Bring in the actor who drew the sixth role—the catalyst. Then bring in the other actors one by one, and let them interact with the catalyst for about 1 minute each.

When the skit is over, have the actors return to their seats. On the chalkboard, set up a matrix with the names of the actors in a vertical column on the left; list them in any order, except put the catalyst's name last. Tell the class that the six actors were playing roles, that you are going to list those roles across the top of the matrix, and that you are going to poll the class to determine how many believe each actor could have been playing each role. Also tell them that you are going to include a role that no one played. Then list the roles one at a time, polling students on each one before you list the next. List the roles in the same order as they appear above, but insert "a mentally ill person" between the third and fourth roles.

Adapted from the "Mental Illness Game" by James M. Gardner, *Teaching of Psychology*, 1976, 3(3), 141–142. Copyright 1976 by Division Two of the American Psychological Association. Reprinted by permission.

When the voting is completed, examine the data. First, determine which actors appeared to play several roles and which were identified with only one role. Next, determine which roles were clearly identified and which appeared to be played by many actors. Then ask the actors to state which role they played. It will become apparent that no one was assigned the role of "a mentally ill person." Now check how many believed each of the six actors to be playing that role. Compare the total number here to totals for other roles. Usually the total for "a mentally ill person" is one of the highest.

Discussion

This outcome can lead to a discussion of how easy it is for people to be labeled mentally ill when there is no psychological problem present. Ask the students to verbalize what behaviors they observed in the actors that they felt were indicative of mental illness. Is there any agreement on those behaviors? Were those behaviors exhibited by actors who were not thought to be mentally ill? You can add a number of topics to the discussion such as witch hunts and the legal definition of insanity. You can also discuss the concept of mental illness. Does the use of the term *illness* promote a medical model? What other terms are used and how are they different?

Suggested Background Readings

- Gardner, J. M. *Community psychology: The left hand of the magician*. New York: Plenum, 1980.
Sahakian, W. S. (Ed.). *Psychopathology today*. Itasca, Ill.: F. E. Peacock, 1970.
Szasz, T. S. The myth of mental illness. *American Psychologist*, 1960, 15, 113-118.
Szasz, T. S. *The manufacture of madness*. New York: Delta, 1970.

Concept

Instruction

Classical Conditioning

19 JAWS: DEMONSTRATING CLASSICAL CONDITIONING

Randolph A. Smith

Ouachita Baptist University

This activity is a good “opener” to get students to pay attention and talk. The materials are readily available, and once you have them, there is no advance preparation. The music from the movie *Jaws* could be replaced by music from any current thriller, with appropriate modifications in imagery. No prior knowledge of psychology is necessary, and the activity is suitable for classes of all sizes.

- CONCEPT** The concept of classical conditioning is often difficult for students to grasp if the instructor immediately begins to use the time-honored example of Pavlov and his dogs. The students may get lost in the maze of terms—US, UR, CR, CS—and fail to see any relevance between slobbering dogs and human learning. Thus I think that it is important to begin a presentation of classical conditioning with a real-life example that most students have experienced.
- MATERIALS NEEDED** You will need a tape recording of a few seconds of the shark-attack music from the movie *Jaws*.
- INSTRUCTIONS** I use this demonstration at the beginning of the section on conditioning in general psychology classes before I introduce the concepts. First I ask students to close their eyes and engage in mental imagery. I tell them to imagine that it is a hot summer day and that they are at the beach. The sun is scorching. They are getting hotter and hotter, can stand it no longer, run toward the ocean, and splash in the shallow water. Then they swim out to deeper water and enjoy cooling off after being in the sun. It is fairly easy to stretch this imagery process out for 2 or 3 minutes. Then, as unobtrusively as possible, I start the music from *Jaws*. From the expressions on their faces and the laughter, I can tell immediately that most students have seen *Jaws* and have been conditioned to associate the killer shark with the music.
- DISCUSSION** The key part of the demonstration is the discussion that follows. Without knowing the appropriate classical conditioning terms, students are able to explain in their own words what happened during the movie. They can tell you that the shark (technically a CS, but a US in this demonstration) yields a response of fear or disgust (the UR). They know that the music (CS) originally had no meaning but came to elicit a response (CR) during the movie because it signaled that the shark was about to appear and have a swimmer for lunch. At this point, they are prepared to hear your discussion on Pav-

lov's experiment, to understand it and the terminology used, and to see the application of classical conditioning to human behavior. As you go on through the classical conditioning information, you can point out that you actually demonstrated second-order conditioning to them, because their responses to a shark are learned through classical conditioning since they associate sharks with mutilation, blood, death, and so forth. All in all, the demonstration helps to bring classical conditioning and its principles to life in a highly relevant situation.

SUGGESTED
READING

- Cogan, D., & Cogan, R. (1984). Classical salivary conditioning: An easy demonstration. *Teaching of Psychology*, 11, 170-171.
- Gibb, G. D. (1983). Making classical conditioning understandable through a demonstration technique. *Teaching of Psychology*, 10, 112-113.

Human Operant Conditioning

20

HUMAN OPERANT CONDITIONING

John K. Bare
Carleton College

This activity does not require prior knowledge of psychology. There is little advance preparation, and it is suitable for classes of virtually any size. You will need to give some thought to how you will instruct the "experimenter(s)" in the procedures without informing the learner(s) during this in-class exercise.

CONCEPT

Human operant conditioning is often demonstrated by asking the subject to say nouns and then reinforcing the plural but not the singular form. Another technique is to ask the subject to say numbers and then reinforce those numbers divisible by 2. The shortcoming of these procedures is that the subject is limited by the instructions to two classes of responses, whereas the animal in the typical Skinner box can make many more different responses even if the space is limited. In addition, the procedures do not display shaping of the response by successive approximation, and as a consequence, there are no changes in the criteria for reinforcement that are present in shaping. Moreover, during extinction, one cannot watch the behavior revert to previously rewarded responses. These shortcomings can be minimized by doing the activity outlined here.

MATERIALS NEEDED

No materials are required except pencil and paper. Score sheets must be constructed by those doing the reinforcing.

INSTRUCTIONS

Twelve words are shown to the subject, and his or her instructions are simply to try to get as many points as possible. He or she is to say the word, and following the word the experimenter will say either "Point" or "No point." The experimenter should record which word was given and whether a reinforcement was given for each trial. The words to be used are *underfed*, *misread*, *understand*, *understudy*, *mistake*, *misread*, *understanding*, *mistaken*, *underpaid*, *understandingly*, *misinform*, and *mistakenly*.

The experimenter first reinforces any word that begins with "mis," by saying "Point." Once the subject has picked three words in succession that begin with the syllable "mis" and received three reinforcements in succession, the experimenter should change the criterion so that reinforcement is received only if the first two syllables "mistake . . ." are chosen. Again, after the subject has received three reinforcements in succession, the criterion is changed so that only the word with the three syllables "mistaken . . ." is reinforced. After three more successive reinforcements, only the word "mistakenly" is reinforced. After five correct responses in succession, the reinforcement is no longer given for any word, thus beginning the extinction process. The extinction session should last at least three minutes.

The students can work in pairs, with one as the subject and one as the experimenter, or one student can be used to demonstrate the phenomena. Ask the subject to pick his or her words by number, because that will facilitate recording the responses. In order to draw a cumulative response curve, it is necessary to have someone record how many correct responses occur in each 3-minute period.

DISCUSSION

Once the cumulative response curves for acquisition and extinction have been drawn, have students make observations on the rate of responding (indicated by the slope). You might ask them to try to specify what a reacquisition curve might look like or a curve showing spontaneous recovery. If a number of subjects are conditioned, then individual differences in rate will occur, so you may wish to ask what is it about the behavior in the situation that might account for such individual differences. The regression back through previously reinforced responses that is often observed in animals may also occur. Ask the class how such behavior—going back through previously reinforced responses—might be adaptive for an animal in its natural environment.

**SUGGESTED
READING**

Gleitman, H. (1986). *Psychology* (2nd ed., pp. 101–113). New York: Norton. Nearly any introductory text will discuss operant or instrumental conditioning. See Gleitman's small section on shaping in pp. 107–108.

Bringing the Clinic into the Undergraduate Classroom

45

BRINGING THE CLINIC INTO THE UNDERGRADUATE CLASSROOM

David M. Young

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Students develop hands-on skills in problem formulation, classification of disorders, developing treatment plans, and assessing the prognoses of actual or simulated clients in this exercise. Although a film or video presentation of a clinical interview works best, you can do this activity with an audiotaped interview or even a written history. The simulation procedure generally should be introduced 4 to 5 weeks into the course, after students have been prepared in the background they will need to engage in this miniclinic assessment exercise. A full class session for the actual presentation of the interview, the assessment, and ensuing discussion is recommended. The student worksheets for completing the assessment are provided.

CONCEPT Many notable teachers of psychology, textbook authors, and practicing psychologists (Benjamin & Lowman, 1981; McKeachie, 1978; Radford & Rose, 1980) have implored professors to give undergraduate students the experience of actually working at the tasks that psychologists perform. In many undergraduate lecture courses, students become oriented to what clinicians do and may even observe audiotaped or videotaped examples of clinical activities. Yet, because of ethical concerns (e.g., confidentiality problems, using untrained students to make interventions or important decisions regarding a client) or the sheer numbers of students involved, psychology students are rarely directed to attempt the hands-on exercise of clinical skills. When students are tested in abnormal psychology courses, they are often expected to make diagnostic decisions, provide a prognosis, and define the relevance of particular forms of therapy for different disorders—all based on fragments of hypothetical cases, often presented in the form of multiple-choice items. This article describes a method that involves students in the relevant simulation of a variety of clinical experiences. We have employed these techniques or "miniclinics" in several courses that contain units related to clinical assessment and intervention (e.g. abnormal, child development, and introductory psychology courses).

**MATERIALS
NEEDED**

Besides the three student worksheets that are replicated here, the most important element of the miniclinic exercise is the case material presented by the instructor—ideally, written background information and films or videotapes. Satisfactory but less revealing and stimulating for discussion are written case histories.

Recently, there has been an increase in both the quality and the selection of clinical vignettes (both actual and simulated productions). These are often available from book publishers for a small fee or at no charge to instructors who have adopted the publisher's text book in abnormal psychology.

The film catalogues of colleges and universities are another excellent source of such material. The film "Otto—A Case Study in Abnormal Behavior" (Film No. EC1404, 16; available from the Audio-Visual Center, Indiana University, Bloomington, IN 47405-5901) features a case enactment designed to be studied from the

basic models of psychopathology and treatment. This fine film may be ordered separately or in a series of films displaying various representative scholars discussing the hypothetical Otto from their own model of therapy.

The paper-and-pencil materials include three worksheets: (a) Intake and Problem Formulation, (b) DSM-III Classification, and (c) Treatment Plan and Prognosis. These forms should be reproduced for each student.

INSTRUCTIONS

Undergraduate students are assigned at random to one of several "clinic" groups representing a model or school of psychopathology (e.g., psychoanalytic, behavioral, client-centered, existential, biological). We have found that groups of 6-10 students function effectively for these exercises. During the course of the semester, as clinics are convened, students are rotated to other models. This procedure ensures that each student is exposed to the full complement of therapeutic approaches and helps each student develop ease of communication with other members of the class.

The clinic simulation procedure is generally introduced approximately 4 or 5 weeks into the semester. This timing permits the instructor to cover, in standard sequence, introductory chapters on abnormal psychology, the various models or approaches to psychopathology, the chapters on classification and assessment procedures, and at least one content chapter focusing on the disorders themselves. These chapters are usually followed by material covering the remaining diagnostic categories. The experienced instructor will frequently find that most textbooks follow this fairly standard sequence.

Critical to the success of the exercise is the effective introduction of the material in chapters about models of psychopathology and the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III)* (American Psychiatric Association, 1980). When these chapters are taught (and they should be introduced early in the course), it is important to prepare the students for the eventual clinic exercise by demonstrating how a case can be viewed by the various models, regardless of the diagnosis agreed upon from the *DSM-III*. For example, depression can be viewed as resulting from a chemical imbalance, from a reduction in reinforcement, or from a symbolic loss accentuated by a fixation in the oral stage of development. Thus, before students are actually given the clinic assignment, it is important that they have understood to some degree the ideas behind the various models, the nature of the classification system, and at least one area of disorders outlined in the *DSM-III*.

Time requirements for the exercise vary with the depth of each instructor's involvement with the procedure. For example, some instructors may not wish to have the clinic groups complete each form for each case presented. However, after the stimulus case has been presented, at least 30 minutes of discussion and processing should be made available for the groups. Additional time for a general review of each group's findings, a discussion of agreement within and among groups, and a presentation of new material by the instructor is needed. For thorough processing of the exercise, a full hour should be allotted. Group discussion and the processing of information can be carried over from one class session to the next. However, we have found the process to be smoother when the entire exercise is completed within one class session. Problems of absenteeism, retention of the case material, and so forth are minimized when closure is achieved within one class period.

Students in each of the miniclinics are presented with an overview of the nature of the learning task. Prior to the actual presentation of case material, students in each clinic are reminded of the particular concerns and variables relevant to their dis-

pline. The psychoanalytical group is, for example, cued to look for important features of early childhood, for current defense mechanisms employed, and for the possible forms that an eventual transference might take. Similar coaching is directed toward members of other miniclinics. These instructions are provided to students in a general session so students can become further aware of the differentiation in task and approach of the various therapeutic schools.

When clinic assignments and the general review have been completed, the full case presentation is made, starting with background information provided by the instructor. Each group also receives a copy of the written case history. It is helpful to select cases with a good deal of background information so that students from each clinic have enough potential information to make a case for the relevance or efficacy of their mode. After the background information is presented, the recording of the case is played. Next, students divide into clinic groups to discuss the case and to complete the paper-and-pencil assignments. While the students are working in their groups, it is helpful for the instructor to interact with each group in progress.

The paper-and-pencil assignments consist of three worksheets: Intake and Problem Formulation, DSM-III Classification, and Treatment Plan and Prognosis. Students are instructed to tailor their observations to their assigned perspective on the Intake and Problem Formulation Worksheet. For example, under the Historical Antecedent section, behaviorists are encouraged to note possible early learning histories, psychoanalysts are told to report possible developmental trauma, and students in the physiological clinic are directed to focus on possible early signs of neurological disorder, brain injury, congenital problem, and so forth. Each student is required to complete this form, although group discussion may take place before each student has completed the assignment.

The DSM-III worksheet requires students in each of the clinics to review all five axes of the *DSM-III*. Of course, students are informed that they will rarely utilize all axes in classifying a case. As with the Intake and Problem Formulation Worksheet, each student is required to complete a form after group discussion. Students are encouraged to stick to their guns even if others in the clinic disagree. Because of this practice, reliability estimates may be made for each clinic.

The classification exercise is followed by the completion of the Treatment Plan and Prognosis Worksheet. It is here that students are able to exercise the most creativity and to display familiarity with their assigned model of practice. Interventions should be justified on the basis of problem documentation and relevance to the student's particular mode. The prognosis section is also to be completed with reference to the assigned model and with consideration of the available resources and circumstances relevant to the model (e.g., How well would an older adult with an IQ of 75 do in traditional psychoanalysis?).

With the worksheets completed, the full class reassembles to process the results of the exercise. The instructor leads a discussion of each worksheet activity, highlighting the points of view for each model represented. In addition, a discussion of agreement or disagreement on diagnosis, etiology, and treatment both within and among groups may be held. Rough estimates of percent agreement within groups may be calculated by simply dividing the number of agreements (with the correct diagnostic category) by the combined number of agreements and disagreements within each group. It should be made clear to students, however, that this number is only a rough estimate that is probably inflated because it does not account for the number of agreements that would be expected by chance. It is probably not worth the

time it would take to labor through a complete explanation of the probabilities of chance agreement for each diagnostic category.

DISCUSSION

The miniclinic method presents several advantages to the instructor as well as a few potential stumbling blocks. Advantages include teaching students the rigors of keeping within theoretical models, teaching the logical connection between an etiological conception of problems and interventions associated with particular models, and exploring the problem of how models relate (or do not relate) to the current classification system. Finally, students are able to learn clinical material without rote. They learn that the *DSM-III* is a real tool and enjoy exercising their diagnostic skill through safe risk taking in the miniclinic.

The problems associated with this process include the always-present possibility that passive students will remain passive and let others complete the exercise. The medical students' disease syndrome and the phenomena of the "instant expert" can also be stimulated by this activity, yet early warnings and effective feedback in class can do much to prevent these problems.

One final and nontechnical note summarizing the process is in order: Both students and instructors who use this process find it a lot of fun!

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SUGGESTED READING

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Intake and Problem Formulation Worksheet

Name: _____

Date: _____

Section: _____

Case: _____

Clinic assigned: _____

Presenting problem:

Historical antecedents:

Current observations:

Notes, Ideas, and Questions for Discussion

DSM-III Classification Worksheet

Name: _____
Date: _____
Section: _____
Case: _____

Clinic Assigned: _____

AXIS I: Disorders Usually First Evident in Infancy, Childhood or Adolescence
Assessment data:

DSM-III
classification: _____

AXIS II: Personality Disorders
Assessment Data:

DSM-III
classification: _____

AXIS III: Physical Disorders and Conditions
Assessment Data:

DSM-III
classification: _____

AXIS IV: Severity of Psychosocial Stressors (1-7)
Assessment Data:

DSM-III
classification
(1-7): _____

AXIS V: Highest Level of Adaptive Functioning in Past Year (1-7)
Assessment Data:

DSM-III classification
(1-7): _____

Notes, Ideas, and Questions for Discussion

Treatment Plan and Prognosis Worksheet

Name: _____
Date: _____
Section: _____
Case: _____

Clinic Assigned: _____

Summary of needs (conditions):

Unanswered questions and further assessment needed:

Recommended interventions (with rationale):

Prognosis (related to specific problems):

Notes, Ideas, and Questions for Discussion

Discovering the Relationship Between Operational Definitions and Inter-observer Reliability

15 DISCOVERING THE RELATIONSHIP BETWEEN OPERATIONAL DEFINITIONS AND INTEROBSERVER RELIABILITY

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This activity is designed for students in research methods and behavior modification classes or the methods section of other content courses. Students observe a brief videotape and collect data on the occurrence/nonoccurrence of a series of six behaviors. The main purposes of this activity are to help students (a) understand the importance of having clear operational definitions, (b) learn to calculate interobserver reliability, and (c) think about ways to improve a study that has low interobserver reliability. In addition, students gain practice in using time sampling and come to realize that observation as a data collection technique is more complex than casual observation.

CONCEPT This exercise helps students realize that observation as a data collection technique is more complex than casual observation. It introduces students to the use of time sampling, the calculation of interobserver reliability, and the importance of having clear operational definitions.

MATERIALS NEEDED You will need a 10-min videotape of human or animal behavior, a VCR and monitor for showing the tape to the class, a watch with a second hand, and enough copies of the handouts described later for each student in the class. Students will need pencils and will probably want calculators.

To be most effective, the videotape should be of a group of humans or animals that are active enough to produce several different types of behaviors. If at least some of those behaviors occur quite frequently and in several individuals at a time, students will come away with a better understanding of why time sampling is useful. My tape is of a group of white geese at a local park. (I would be happy to provide a copy of this taped segment to anyone who sends me a blank videotape.) There are many other possibilities for footage that will meet the previously described requirements. For example, you could videotape small children performing at a school program or playing at a birthday party, or you could get some footage of one of the livelier species at your local zoo. If you or someone you know is planning to visit another country, you may be able to obtain a tape of a festival or other group event from another culture. The videos that some universities make of their graduation ceremonies could also be used. If you have access to a VCR, you could tape a segment of an appropriate televised event. Although many television programs show groups engaging in behaviors that meet the criteria identified at the beginning of this discussion, most do not show this activity, uninterrupted by close-ups of individuals or pans to scenery and other locations.

in the story line, for more than a minute or two. There are exceptions, however, that would make good tapes for this activity: Televised New Year's Eve bashes usually show quite long segments of partyers, sporting events such as basketball or volleyball also show fairly long segments of activity on the court, and dance club shows on cable channels run segments of couples dancing for the duration of a complete song.

Prepare three handouts. The first should contain a data collection sheet with a row for each observation interval and a column for each behavior students are to record (see appendix A). The second should contain a list of behaviors (I recommend no more than six to eight), their operational definitions (some of which are purposely clearer than others), and a simple formula for inter-rater reliability (see appendix B). The third handout should contain a set of postobservation questions (see appendix C).

INSTRUCTIONS

This activity should be prefaced with a lecture on the use of observation techniques, including the advantages and disadvantages of time sampling in relation to other observation techniques (e.g., event sampling and narrative recording) and the concept of interobserver reliability. Although the basic observation techniques described in methods textbooks are much the same, the labels given to particular techniques vary. The following definitions of observation techniques are provided to facilitate gathering background lecture material and to prevent misunderstanding.

Time sampling is a technique in which the observer defines several target behaviors, divides the observation period into short intervals, and then alternates from observing to recording every other interval. In contrast, in *event sampling* the observer defines a target behavior and records every instance of that behavior as it occurs throughout the observation period. A *narrative recording* is a running description of behavior in which everything that is said or done during the observation period is recorded. The following are particularly useful sources for lecture material: chapter 6 from Bordens and Abbott (1996); chapters 6, 7, and 8 from Martin and Bateson (1993); and chapter 19 from Martin and Pear (1996).

Give each student all three handouts, and allow them a few minutes to read through the list of behaviors and operational definitions and become familiar with the layout of the data collection sheet. Have students work in 15-s intervals—alternating between 15 s for observing and 15 s for recording observations completed in the previous 15-s interval. For each observation interval, they simply look for whether or not each target behavior occurs. If the behavior occurs *at least once* in the observation interval, they are to place a tally mark in the appropriate column on the data sheet during the recording interval. Rather than having students keep track of their own intervals, use a watch with a second hand to time intervals for them. It works best if you simply call out "observe" or "record" at the beginning of alternate 15-s intervals. Explain to students that data collection will last for a total of 10 min. Each minute represents an observation period and is divided into 30-s sessions. During each 30-s session, students will have a 15-s interval to observe the behavior on the videotape and a 15-s interval to record their observations. It is important for students to understand what they are observing and recording; be sure to explain that they are recording the occurrence of target behaviors. That is, they are looking for whether or not a behavior occurs; they are *not* looking for the number of times a specific behavior occurs.

After 10 min, have students stop observing and work on the postobservation questions (see appendix C). As appendix C illustrates, students will first answer several questions individually, then compare those answers with a partner, and finally calculate interobserver reliability with their partner for each of the target behaviors.

DISCUSSION

Follow up with a class discussion of students' responses to the postobservation questions. Focus on those questions where partners' responses differed most often and on those behaviors that had the highest and lowest interobserver reliability. Then discuss possible reasons for these trends. With my tape of geese and set of behaviors, for example, students generally have very high interobserver reliability for displays and for tail shakes and low reliability for feeding and submission. When exploring possible reasons for these findings, student comments tend to focus on the importance of careful operational definitions and on problems with observation. For example, students notice that my operational definition of display behavior is much more concrete than my definition of submission, that the definition for feeding was too narrow to encompass much of what they wanted to be able to code as feeding behavior, and that several of the behaviors were difficult to identify accurately because of the distance from which the videotape was shot. For example, one student declared that she wanted a better definition of feeding, because "sometimes I thought they might be, but I couldn't see if they really had food in their mouths or not."

Next ask students to offer possible solutions for the reliability problems they have encountered. We talk about clarifying operational definitions. For example, several students decided that "touching beak to the ground several times in a row" would have defined feeding in a way that would have allowed them to record what they thought was feeding behavior. Students also brought up the possibility of reviewing the tape and discussing discrepancies between observers in order to resolve disagreements or practicing with sample tapes to improve reliability before viewing actual data tapes. This second idea was an elaboration on one student's comment that he "wished we could have watched the whole tape first while reading the definitions and *then* done the recording part." The students also decided that the value of a high-power zoom lens should not be underestimated if one wants to observe detailed behaviors and remain unobtrusive. Overall, students' responses to the activity indicated that not only did they learn a great deal, but that they enjoyed the activity as well.

A minor variation on this activity could allow students to discover for themselves that one of the pitfalls to time sampling is that there will always be lost data (i.e., behaviors that occur during recording intervals rather than observation intervals). Instead of having the entire class observe and record during the same intervals, divide the class in half, and have each half observe and record during opposite intervals. Have each half of the class pool their data and calculate the mean number of intervals in which tail shakes, feeding, grooming, display, aggression, and submission were observed by their group. Students should find that for behaviors that occur frequently, there will be little difference between the means reported by each half of the class. For example, the two halves of the class should be quite similar on mean number of tail shakes, simply because this occurs almost continuously among geese. However, for relatively infrequent behaviors, such as displays of aggression, students are likely to notice differences between

WRITING COMPONENT

reports by the two halves of the class. This can lead to a discussion of the relative usefulness of time sampling versus event sampling for observing infrequent behaviors. (Obviously, if you use this alternative procedure and you still want students to calculate interobserver reliability, they must do so by pairing up with someone from the same half of the class.)

Instructors who want to provide their students with an opportunity to do more writing than the small amount required to complete appendix C may add one of the following writing components to the activity.

1. Have students reflect on their expectations of observation in general and time sampling in particular. After giving students a brief description of the exercise they are about to engage in, ask them to respond to the question, "What do you think will happen when we do this time sampling observation?" After the exercise is complete, have students reread their earlier expectations and write a response to the following two questions: (a) "Which of your earlier expectations were met and why do you think this happened?" and (b) "Which of your earlier expectations were *not* met and why do you think this happened?" As a follow-up, students could construct a list on the chalkboard of the group's most common expectations, identify those that were not met, and then discuss whether those unmet expectations would make them more or less likely to want to use this method in their own future research.
2. Have students write a report to the researchers who set up the study. In that report, students should point out the strengths and weaknesses of the study and suggest improvements. This writing component could be followed by a small-group discussion in which students compare the strengths and weaknesses they noticed and try to identify the most methodologically sound and practical suggestions for improvement. You could also ask the students to use this small-group time to rewrite the operational definitions that they found lacking.
3. Instructors who have their students keep journals might consider having them include an entry about this observation activity. Students could be asked to respond to the question "What do you feel you learned from this observation exercise?" If content analysis is covered in your course, you could have students use these journal responses as data and attempt to code them into categories.

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Appendix A

Data Collection Sheet for Time Sampling

Minute	Tail Shake	Feeding	Grooming	Display	Aggression	Submission
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Each cell represents a 15-s observation interval. Recording intervals are not shown on this sheet.

Appendix B

Target Behaviors and Operational Definitions

Tail shake	Flicking tail back and forth rapidly several times in succession
Feeding	Actually taking food in beak
Grooming	Preening—using beak to fluff or pick at feathers
Display	Full (or almost full) extension of wings accompanied by several flaps, a slight lift in body posture, and a slight extension of neck—usually done when standing or when walking very slowly
Aggression	Nipping or threatening (by chasing or quickly swinging head toward another individual)
Submission	Running from or obviously avoiding close contact with another individual

Formula for Calculating Interobserver Reliability When Doing Time Sampling

$$\text{reliability} = \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \times 100$$

(Agreements = number of intervals in which you both marked that the behavior occurred, and disagreements = number of intervals in which only one of you marked that the behavior occurred.)

Appendix C

Postobservation Instructions

1. Individually, tally the number of intervals in which each behavior occurred. Then, answer the following questions:
 - Which behavior occurred *most* often?
 - Which behavior occurred *least* often?
 - Are there any behaviors that at least *appear* to be highly correlated? (That is, are there any behaviors that seem to always, or almost always, occur during the same intervals?)
2. Pair up with another student and compare your answers to the preceding questions. Did you disagree on any of them? If so, which one(s)? *Why* did you disagree?
3. Calculate the interobserver reliability between you and your partner for each behavior category. Identify the category that has the highest interobserver reliability and the category that has the lowest interobserver reliability.

Tail shake =

Display =

Feeding =

Aggression =

Grooming =

Submission =

Information Processing Capacity: A Visual Demonstration of the Magical Number Seven

INFORMATION PROCESSING CAPACITY: A VISUAL DEMONSTRATION OF THE MAGICAL NUMBER SEVEN

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This activity provides a visual demonstration of the well-known limitation on information processing capacity represented by the G. A. Miller's phrase "the magical number seven, plus or minus two." Students are presented with arrays of dots, arranged either randomly or in patterns. A graph of students' judgments of the number of dots in each array demonstrates the limits of information processing capacity and the facilitative effect of chunking. The demonstration also provides opportunities to explore aspects of experimental design and descriptive statistics.

CONCEPT The phrase "magical number seven, plus or minus two" refers to the limited capacity of short-term memory (Miller, 1956). This activity, unlike the auditory demonstrations typically included in introductory texts, uses visual stimuli to demonstrate this capacity and the value of chunking. It easily can be extended to cover experimental design and descriptive statistics.

**MATERIALS
NEEDED** In addition to chalk and a chalkboard, you will need 17 stimulus items, each constructed from a sheet of 8½-by-11 in. white paper and black or blue colored adhesive dots approximately $\frac{3}{4}$ in. in diameter. These dots are available in office supply stores. A total of 136 dots are needed.

Prepare the 17 stimulus items as indicated in appendix A. Each must consist of one sheet of paper with the number of dots indicated distributed either randomly or in a pattern. On the back of each sheet note lightly, for your own reference, the stimulus item number as well as the number and distribution of the dots. This will enable you to check that the sheets are in the proper sequence before beginning the demonstration.

The construction of stimulus items as described here has proved adequate for classes of up to 90 students. For larger classes, you may want to construct the stimulus items by placing adhesive dots directly on overhead transparency sheets. These, however, are more difficult to handle. If you use this method, check in advance to make sure all the dots on each transparency actually project on the screen.

You may also want to prepare a summary sheet that indicates the random stimulus item numbers in order of increasing number of dots (stimulus items 6, 3, 12, 1, 16, 14, 9, 11, 5, 4, 17, 2, 8, and 13) and the patterned item numbers in

the same order (stimulus items 15, 7, and 10). This will facilitate the construction of the results graph.

INSTRUCTIONS *Preparation*

On a table in front of you, arrange the stimulus items face down from Item 1 (on top) through Item 17 (on the bottom). Ask the class to turn to a blank page in their notebooks and number from line 1 through line 17.

Say to the class: "I am going to show you some sheets of paper with dots on them. For each sheet, I will give you three beats to get ready, one beat to watch, and one beat to write down the number of dots you see on that sheet. Write your answer for each sheet on a different line, going from Line 1 through Line 17. I will not be calling out line numbers, so just keep going until we finish. For each sheet, I will say, 'dah, dah, dah, look, write.'" Demonstrate with hand motions how you will hold up a stimulus item on "look."

Stimulus Presentation

Show each sheet by counting, at approximately 1 sec per beat, "dah, dah, dah, look, write." As you say "look," hold up a stimulus item. As you say "write," put the sheet face down. Repeat for each stimulus item.

RECORDING RESULTS

Draw a graph on the chalkboard. Label the vertical axis "Number of Persons Correct" and mark it in units of 10. Label the horizontal axis "Number of Dots" and number it from 1 to 14 (the maximum number of dots).

Referring to your summary sheet listing all the stimulus items, go through each item in the order of increasing dots and ask for a show of hands as to the number of students who wrote down the correct number. For example, say, "Sheet 6 had one dot. How many of you were correct?" Follow this with, "Sheet 12, two dots," and so on. It is helpful to know in advance how many are actually present so you can subtract the number of people wrong when almost everyone is correct. With a large class, divide the class into sections and have someone count each section.

Using this procedure, record the number of persons correctly responding to random arrangements of 1 through 14 dots. For each stimulus item, count the number of correct persons and plot a solid dot at the appropriate place on the graph. Connect the solid dots with solid lines to complete the graph. Then record the number of persons correctly responding to the three items with dots arranged in patterns. Indicate the number correct with small hollow circles and connect these with broken lines. Complete your graph with a key indicating that solid circles connected by a solid line correspond to random arrangements, whereas hollow circles connected with a broken line indicate pattern arrangements.

DISCUSSION

Typically, for random arrangements of dots, virtually the entire class is correct for 1 through 5 dots. Thereafter, the number of persons correct begins to decline, and does so precipitously for 10 through 14 dots. Your graph will not be perfect, but the trend should be clearly apparent.

Once you have constructed the graph for random arrangements, ask the class to interpret the graph. Identify the point where lots of people begin to make

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mistakes and relate this to the "magical number seven," which represents our information-processing capacity.

When dots are arranged in patterns, the number correct is always higher. Ask the class to compare the number correct for 9, 10, and 12 dots arranged in patterns with the number correct for 9, 10, and 12 dots distributed randomly. Ask for suggestions as to why the results are as they are. Introduce the concept of chunking to explain the dramatic increase in capacity when information is organized into patterns.

After discussing the main findings of the demonstration, you can extend the activity by having students analyze it in terms of experimental design. Have them identify the independent variables (there are two: the total number of dots and the type of arrangement, random or pattern) and the dependent variable (number of persons correct) for the demonstration. Ask for someone to state a relationship between the independent and dependent variables that was illustrated by this activity. (As the number of dots increased, the number of persons correct decreased. However, the number of persons correct was higher when the dots were in a pattern.)

Continuing your discussion of variables, ask the class to identify possible uncontrolled variables that might have affected the outcome. These might include such things as distance from the stimulus items, viewing angle, movement of stimulus items as you held them up, inadvertent variations in viewing time, and so forth. Ask for suggestions as to how to adequately control for these variables, and describe laboratory instruments, such as the tachistoscope, that have been designed to enable increased control over such variables.

Finally, it is good to point out how a very large number of individual responses (roughly 17 times the number of people who participated) can be summarized by means of a single graph. This illustrates the value of graphs and other forms of statistics for making data manageable and understandable.

WRITING COMPONENT

Several writing exercises can be assigned to assess students' understanding of information-processing capacity as illustrated by this activity. For example, ask the students to write a paragraph summarizing the purpose of the demonstration and describing the independent variable, the dependent variable, and the relationship between them.

As a follow-up to the classroom discussion of uncontrolled variables, you can also have students choose one of these variables and design an experiment in which it becomes an independent variable while other variables are controlled. Have students explain in writing how results could be summarized in a graph.

Finally, have students write descriptions of situations in which chunking of visual information into patterns is important. These might include occupations (e.g., air traffic controller or musician), sports (e.g., football or basketball), board games (e.g., chess), and activities of daily life (e.g., finding one's car in a large parking lot or finding items during a trip to a supermarket). In each instance, have students indicate why they believe chunking is of value. Some examples of studies reporting visual chunking are noted in the Reference and Suggested Reading sections.

REFERENCE

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MEMORY

**SUGGESTED
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Appendix A

Stimulus Items

Item Number	Number of Dots	Distribution
1	4	Random
2	12	Random
3	2	Random
4	10	Random
5	9	Random
6	1	Random
7	10	Random
8	13	Pattern (2 rows of 5)
9	7	Random
10	12	Random
11	8	Pattern (4 rows of 3)
12	3	Random
13	14	Random
14	6	Random
15	9	Random
16	5	Pattern (3 rows of 3)
17	11	Random

The Role of Prior Information in Dream Analysis

80 THE ROLE OF PRIOR INFORMATION IN DREAM ANALYSIS

Douglas A. Bernstein

University of Illinois

In this activity, the class receives a handout describing the demographic characteristics and brief life history of a woman named Doris, along with a dream she reported having. At the bottom of the handout, there is space for the student to interpret the meaning of Doris's dream. The dream is the same on each handout, but the description of Doris is not.

CONCEPT This activity is designed to help students understand that the interpretation of dreams, like the interpretation of other stimuli, can be influenced by prior knowledge, expectancies, motivation, emotion, and other top down processes. More specifically, it illustrates how easily a clinician's prior knowledge about a client might prompt very different conclusions about the meaning of dream content.

This activity provides an easy way to show students the link between principles that guide the perception of objects and those that operate in social perception in general and in psychotherapy in particular.

MATERIALS NEEDED You will need copies of each of the three handouts given in appendixes A, B, and C. Collate the three items before you hand them out, so that one third of the students will receive each version.

To aid class discussion of varying dream interpretations, it is helpful to have each version of Doris's demographics and life history on overhead transparencies in print large enough to be read from the back of the room.

INSTRUCTIONS Give each student a version of the Doris handout. After a few minutes, ask the students to write their interpretation of the dream at the bottom—and perhaps the back—of the handout. You can either collect and read aloud some of the interpretations, or just ask students to read them aloud.

DISCUSSION As the readings proceed, it will soon become obvious to the class that something is amiss. At this point, reveal the differences in the three descriptions of Doris and point out the influence those differences had on the interpretations of Doris's dream.

You can end this demonstration by pointing out that clinicians are aware of the role of prior knowledge in dream analysis (and other aspects of therapy). This is why, for example, they tend to base conclusions about clients on a series of dreams rather than on just one and why they seek to combine assessment information from various sources, such as tests and interviews. I have found that stimulating class discussions result from pointing out that, in spite of such efforts, clinicians are as vulnerable as the rest of us to the biasing effects of expectancy in dealing with clients.

**WRITING
COMPONENT**

In addition to having students write their interpretation of the dream in class, you might also ask students to write a summary of the purpose of the demonstration and what they learned from it. This can be done in 5 min at the end of the exercise or at the end of class. A quick perusal of the summaries can show if students understood the point that you were trying to make. Summaries are efficient ways to check for student understanding.

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1 George W. Albee, PhD

1.1 Your Biography

You are George W. Albee, Clinical Psychologist and thorn in the side of Psychiatry. You were born in St. Mary's PA, but attended Bethany College in WV as an undergraduate. You served in the Air Force from 1943–1946, after which you started graduate school in Clinical Psychology at the University of Pittsburgh. After receiving your PhD in 1949, you joined the Western Psychiatric Institute as a Research Associate, where you worked until 1951.

In 1951, you joined Harry Harlow's wife and two others as the staff of the APA. During that time, not only did you come to understand the inner workings of this vast organization, but you actually drafted some of the committee structures. In 1953, you won a Fulbright grant to spend a year teaching Psychiatry at Helsinki University, Finland. When you returned to the States in 1954, you accepted an Associate Professorship at Western Reserve University in Cleveland, where you still teach.

In the 1950s, you chaired an APA taskforce on resources available for mental health professionals. This taskforce culminated in your book *Mental Health Manpower Trends* (1959), which made clear the need for proactive, preventative mental health needs rather than the traditional reactive psychoanalytic approach.

Your service to the APA is nothing short of astonishing. In the words of a close friend:

"He served at various times as program chair of the APA annual convention; as a participant in the Miami, Chicago, Vail, and Utah clinical training conferences; as a member of the Board of Professional Affairs and the Ethics Committee; and (on numerous occasions) as a member of the Council of Representatives. He was president of Division 12 (Clinical) in 1966–1967 and [item removed for game coherence]. He has also served on and chaired innumerable APA committees, including the Commission on the Composition of Council that established the current voting system that guarantees one vote per person."

In 1964, you wrote "A declaration of independence for psychology,"

which called for psychologists to withdraw from psychiatric facilities and set up their own centers for treatment of individuals with mental problems.

More recently, you have started worrying publicly that the ‘medical model’ of mental life in terms of ‘health’ and ‘illness’ is lacking. Your 1969 paper “Emerging concepts of mental illness and models of treatment: The psychological point of view” articulates your view on this matter:

The ‘sickness model’ assumes three things that are not true of mental disturbances or disturbed behavior:

1. that mental conditions are separate, discrete mental illnesses each of which has a separate cause, prognosis and treatment,
2. that treatment of these conditions is the sole responsibility of a specially trained ‘physician’ and
3. that the source of the disturbances are to be found in the individual, rather than in the world, thus focusing all ‘treatment’ effort on the individual rather than the social conditions which may give rise to his or her disturbed behavior.¹

Your life-long commitment to preventative therapy has caused you to butt heads with defenders of the older way of doing things on various occasions. Your work is typified by three basic trends:

1. the independence of psychology from psychiatry and biology,
2. the inappropriateness of the illness model for mental and emotional disorders, and
3. the role of social injustice and inequality in mental health—both in how social injustice causes mental and emotional disorders and how prejudices have formed mental health taxonomies and diagnostics.

According to you, mediating factors such as social support, self-esteem and healthy coping skills have a more profound effect on the incidence of mental and emotional disorders than any conceivable trauma, defense mechanism, or reaction. Echoing the medical truism that an ounce of prevention is worth a pound of cure, you believe that stamping out racism, sexism, ageism and homophobia (as well as other prejudices) would do more to alleviate mental and emotional disorders than all the psychoanalysis that all the psychoanalysts could possibly provide.

In your own words, the 1960s found you embroiled in a “continuing, often acrimonious debate with psychiatry over the inappropriateness of the illness model of mental and emotional disorder and over medical hegemony.”

¹ Summarized from Albee (1969), p. 42–43.

1.2 Game Objectives

Find opportunities to articulate and promote your vision of psychology as an alternative to psychiatry, including the importance of preventative treatment. One obvious way to do this is to run for president as soon as possible. If you are unable to be elected President, seek a paper presentation during which you can present your vision of preventative mental health.

If and when the game gets to the point where the definition of mental illness is addressed, work with Thomas Szasz to ensure that no definition that assumes an 'illness' metaphor or medical model, or makes a tacit preference for psychiatry against psychology.

Specific Assignment

Initial Committee Membership If your class is larger than 16, you'll start as the board-member-at-large, serving from '71-'73.

Committee 1.1 (Albee) Nomenclature committee Member at large on Board of Directors, 1971-1972 (large classes only)

Demedicalization

Officially neutral, but the arguments from the GayPA that the classification *itself* is producing more mental illness than it prevents is consistent with your view of the inadequacy of the medical model.

Research

You don't have a strong position in the research agenda, however you should find opportunities to support any psychological science—as opposed to psychiatric science—and anything that steers away from the medical model of psychology.

Association Business /DSM-III

Organize a symposium with Thomas Szasz on the suitability of the medical model for psychiatric treatment. This will be best in 1972 before the debate on the DSM-III gets moving in 1973.

Assignment 1.1 (Albee - 1972) Present a paper during a symposium on the suitability of the medical model of psychological and psychiatric treatment. Preferably 1972.

Social responsibilities of social scientists

Neutral, but take a position consistent with your vision of psychology.

Definition of 'mental illness' and fission of the APA

Oppose any definition that uses the medical model or medical language.

There will likely be a proposal to limit the treatment of mentally disordered patients to psychiatrists, you should not only fight against

it, but propose a separate system of treatment run entirely by psychologists. Your proposal should call for the establishment of various centers that would train, certify and deliver mental health services, in competition with psychiatry. Check out 4.16 on page 176, point e, which was added in 1968. You should work to get this removed or changed so psychologists can also work with psychotropics in their practice.

1.3 Game Note:

George W. Albee was Emeritus Professor of Psychiatry at the University of Vermont. His web page contains links to his work, and a biography, from which much of the information in this character sheet was pulled. <http://www.uvm.edu/~galbee/>. He died in 2006.

1.4 Must Read:

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Other Relevant Work:

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2 Anne Anastasi, PhD

2.1 Your Biography

You were born in New York, daughter of Italian immigrants, in 1908. Your father died when you were 1, after which your mother was alienated from your father's family. Since your mother had to work, you were raised primarily by your maternal grandmother and your uncle. You were home-schooled until the age of 9. As a teenager, you became interested in mathematics, teaching yourself advanced trigonometry. At 13, you dropped out of high school and enrolled in Rhodes Preparatory School, whose primary mission is to train adults who needed basic education to get accepted in college. After two years at Rhodes, you were accepted at Barnard College at the age of 15.

At Barnard, you were deeply influenced by Harry Hollingworth, chair of the Psychology department, as well as the work of Charles Spearman, an English statistician and psychologist who demonstrated that scores on most tests of mental abilities were correlated with one another, suggesting that there was a single general source of intelligence (see Spearman (1904)). You graduated from Barnard 4 years later at 19, and were granted a PhD By Columbia *one year later* in 1929.

The year that you earned your doctorate the stock market crashed, which caused the early part of your career to be defined by harsh economic times. Thanks to New Deal grants from the National Youth Administration and the Works Progress Administration (WPA), you were able to hire a few research assistants. You moved to Queens College in 1939, but felt that the administration did not fully support your fledgling psychology department. You moved again, this time to Fordham, in 1947, where you remain today.

You are often called the "test guru." Your 1954 text, "Psychological Testing," is still required reading in undergraduate and graduate psychology courses and is considered a virtual bible for the field. The book, an encyclopedic review of how tests are constructed, validated and interpreted, received wide acclaim for its lucidity and depth of analysis. You took a special interest in the question of whether tests could be created that were free of cultural bias. In the 1960s and 70s,

while some in the field championed so-called “culture fair” tests, you argued that the claim that tests could be entirely unbiased was a fallacy. You ultimately argued that, “Tests can serve a predictive function only insofar as they indicate to what extent the individual has acquired the prerequisite skills and knowledge for a designated criterion performance. What persons can accomplish in the future depends not only on their present intellectual status, as assessed by the test, but on their subsequent experience (Anastasi, 1981).”

According to you, intelligence tests can do three things:

“They permit a direct assessment of prerequisite intellectual skills demanded by many important tasks in our culture.

They assess availability of a relevant store of knowledge or content also prerequisite for many educational and occupational tasks.

They provide an indirect index of the extent to which the individual has developed effective learning strategies, problem-solving techniques and work habits and utilized them in the past.” (quoted on <http://www.indiana.edu/~intell/anastasi.shtml> from Anastasi, 1981).

You wrote that, “Intelligence is not a single, unitary ability, but rather a composite of several functions. The term denotes that combination of abilities required for survival and advancement within a particular culture (Anastasi, 1992, p. 613). ” Your research focused on understanding and measuring the factors underlying the development of individual differences in psychological traits (Anastasi, 1972, 1989).

You argued against the idea that intelligence was strictly hereditary, emphasizing the role of experiential and environmental influences on intelligence test scores and psychological development. You stressed that intelligence test scores are not pure measures of innate ability, but that

“...not only does the nature of one’s antecedent experiences affect the degree of differentiation of ‘intelligence’ into distinct abilities, but it also affects the particular abilities that emerge, such as verbal, numerical, and spatial abilities. Thus, experiential factors affect not only the level of the individual’s intellectual development, but also the very categories in terms of which his abilities may be identified (Anastasi, 1972).

In addition to your contributions to testing, you were renowned for your studies of individual and group differences and the interplay of biology and environment in shaping personality and intellectual development. You wrote more than 150 scholarly books, monographs and articles, and are said to have brought to the issue a balanced, deeply rational perspective and an insistence on solid science. You played a significant role in applying psychology to real-world situations, both through areas like industrial psychology and consumer psychology and in the clinical consulting room.

2.2 Game Objectives

Run for vice president in 1972, or until you get elected. Your expertise in statistics and understanding variability may come in very handy in the discussion of the ‘normality’ of sexual behavior. You wish to present paper on the topic in 1972 or 1973.

If you are elected to a leadership position, it will be important to leave a legacy that can assist other women who wish to attain positions of such stature. At the same time, you are crucially aware of the lack of serious research in either the psychological or psychiatric communities on the minds of women. Where women have been separated out for special study, the work is poor and misogynistic. As president, then, you will be keenly interested in establishing institutional infrastructure that will both advance the study of women in a non-misogynistic way and provide leadership opportunities for future women in the discipline.

Notice that the official documents of the APA, as included in the game book, are written in gender-specific language: I.B states “a nonmember of the APA may read a paper provided that he is sponsored...”. The implication here is, of course, that a female nonmember is not allowed to present. As this document is an official representation of the policies of the APA, it should be clarified to reflect the policies of the organization.

Specific Assignments

Initial Committee Membership

You are an initial member of the Program committee, with your term expiring in 1973. Review the model schedule in the gamebook, and solicit proposals from your peers. You should also get the program committee to propose gender-neutral language for the guidelines, and present your proposal to the board in 1971.

Committee 2.1 (Anastasi) Initial member of the Program committee, with your term expiring in 1973

Demedicalization

Officially neutral, but make sure that whatever happens, the decision is made on sound science.

Research

Present a paper outlining psychometrics and the use of statistical measures in psychology. This should be connected, conceptually, to the problem of the the taxonomy of mental disorders. It is a good idea, then, to wait until after Spitzer presents the Feigner criteria in 1972. If

Assignment 2.1 (Anastasi - 1972)
Present a paper outlining psychometrics and the use of statistical measures in psychology. Preferably in concert with Spitzer's 'Feigner criteria' in 1972.

elected president, it can be your presidential address. If not, it should be a regular paper.

Association Business /DSM-III

During the time that the DSM-III revisions are taking place, you should run for president and propose two new standing committees of the APA. It is important to gain support of the other women of the APA in making these proposals. **The Committee on Women in Psychology**, which will focus on the issues facing women in the profession, and The Committee on the Psychology of Women, which will focus on studying women's minds as a specialization within the discipline. From the current website of the committee on women in psychology:¹

Specifically, the committee will undertake the following priority tasks

- A. collection of information and documentation concerning the status of women;
- B. development of recommendations relevant to women;
- C. monitoring the implementation of guidelines and recommendations from reports issued by APA that are relevant to women;
- D. development of mechanisms to increase the participation of women in roles and functions both within and outside the profession;
- E. ongoing communications with other agencies and institutions regarding the status of women; and
- F. monitoring current issues relevant to the lives of women in order to inform policy.

The Committee shall consist of six members who are elected for staggered terms of three years. It shall report to Council through the Board for the Advancement of Psychology in the Public Interest (BAPPI).

(Approved by Council, February 2008)

Strategic Goals.

Goal I: Promoting the health and well-being of women

Goal II: Identifying and eliminating discriminatory practices against women

Goal III: Increasing the visibility of feminist scholarship and practice

Goal IV: Promoting the unique contributions of women to psychology

Goal V: Enhancing women's leadership within and outside of APA

Goal VI: Collaborating with others as needed to achieve the empowerment of underrepresented groups

Goal VII: Promoting the generation and communication of knowledge about women's lives

¹ <http://www.apa.org/pi/women/committee/index.aspx> In reality, the committee began as a taskforce under Helen Astin in 1970, but became a standing committee in 1973. See Freedheim, D. "The APA Committee on Women in Psychology" in *Handbook of psychology*, v. 1, p. 261

As well as a new Division of the APA: the **Society for the Psychology of Women:**²

Division 35: Society for the Psychology of Women provides an organizational base for all feminists, women and men of all national origins, who are interested in teaching, research, or practice in the psychology of women. The division recognizes a diversity of women's experiences which result from a variety of factors, including ethnicity, culture, language, socioeconomic status, age, and sexual orientation. The division promotes feminist research, theories, education, and practice toward understanding and improving the lives of girls and women in all their diversities; encourages scholarship on the social construction of gender relations across multicultural contexts; applies its scholarship to transforming the knowledge base of psychology; advocates action toward public policies that advance equality and social justice; and seeks to empower women in community, national, and global leadership. We welcome student members and affiliates. Members are provided two publications: *Psychology of Women Quarterly*, which is a journal of research, theory, and reviews, and the *Feminist Psychologist*.

² <http://www.apa.org/about/division/div35.aspx> In reality, Florence Denmark is credited with creating Division 35 despite resistance from the APA administration. See Freedheim, D. "The Society for the Psychology of Women of the American Psychological Association" in *Handbook of psychology*, v. 1, p. 261 and Mendick & Urbanski (1991).

Social responsibilities of social scientists

Officially neutral, but your advocacy for women in Psychology and the Psychology of women will influence your view.

Definition of 'mental illness' and fission of the APA

Other than assuring non-gender specific definitions, you are neutral.

2.3 Must Read

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3 Kenneth Clark, PhD

3.1 Your Biography

You are Kenneth Clark, a psychologist, educator, and social reformer dedicated to understanding and eradicating racial injustice. You grew up in Harlem, attending the integrated schools of NY City, but attended college at Howard University in D.C. There, you met Mamie Phipps, who eventually became your wife, and with whom you authored numerous studies on the psychological damage caused by segregation and racism. You were the first African American to receive a Doctorate in Psychology from Columbia, and the first black permanent professor at City College of New York, where you still teach.

In addition to your excellent academic collaboration with Mamie, together you founded Harlem's Northside Center for Child Development in 1946, with the mission to "fosters the healthy development of children and families and seeks to empower them to respond constructively to negative societal factors including racism and its related consequences. Through comprehensive, high quality mental health and educational services, coupled with research, children and families are aided in developing to their full potential."¹

In your most famous study (co-authored with Mamie), you presented four identical plastic dolls that different only with respect to color to black children between the ages of three and seven. When asked which doll they preferred, the majority selected the white doll. When asked to color in a drawing 'the same color' as themselves, most of the black children choose yellow or white crayons. You concluded that "prejudice, discrimination, and segregation" had caused the children to develop a sense of self-hatred and inferiority.

The study become something of a sensation, and it is still included in most introductory psychology textbooks. Its effects, however, were much more profound than that.

In 1950, You (Kenneth), wrote a summary of the paper for the Midcentury White House Conference on Children and Youth. The summary was read, ultimately, by Robert Carter, who was one of the

¹ Quoted from <http://www.northsidecenter.org/v4/ourmission.php>

NAACP lawyers pushing the various cases challenging segregation that ultimately were consolidated into the pivotal 1954 *Brown v. The Board of Education* decision. The NAACP contracted you as an expert witness for at least three cases: *Briggs v. Elliot* (South Carolina), *Davis v. County School Board of Prince Edward County* and *Belton v. Gebhart* (Delaware).² You co-authored the summation that was ultimately endorsed by leading social scientists at the time when it went before the Supreme court.

Writing for a unanimous court, Chief Justice Warren stated

"Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other "tangible" factors may be equal, deprive the children of the minority group of equal educational opportunities? We believe that it does."

Quoting from the appellate court (which actually ruled against the NAACP), Chief Justice Warren argued:

"Segregation of white and colored children in public schools has a detrimental effect upon the colored children. The impact is greater when it has the sanction of the law; for the policy of separating the races is usually interpreted as denoting the inferiority of the negro group. A sense of inferiority affects the motivation of a child to learn. Segregation with the sanction of law, therefore, has a tendency to [retard] the educational and mental development of negro children and to deprive them of some of the benefits they would receive in a racial[ly] integrated school system."

Whatever may have been the extent of psychological knowledge at the time of *Plessy v. Ferguson*, this finding is amply supported by modern authority.¹¹ Any language [347 U.S. 483, 495] in *Plessy v. Ferguson* contrary to this finding is rejected.

Footnote 11, which supports the central finding of *Brown*, cites your 1950 memo "Effect of Prejudice and Discrimination on Personality Development."

In the 1896 case *Plessy v. Ferguson*, the Supreme court ruled that so long as railroad accommodations were 'separate but equal', the state of Louisiana was allowed to enforce racial segregation. The court reasoned that laws which kept races separated did not necessarily entail the inferiority of one to the other. Your study was pivotal in the Warren's court rejection of that idea.

Brown v. Board of Education was not only a milestone in the modern civil rights movement, it also made you into something of an academic superstar. You went on to become the most influential black social scientist of your generation. You received honorary degrees from more than a dozen of the nation's finest colleges and universities, but your larger goal of integrated, adequate schooling for blacks had

² See <http://www.will.uiuc.edu/community/beyondbrown/brown5cases.htm>

not become a reality even four decades after the announcement of the monumental court decision.

In the 1960s, you helped establish the Harlem Youth Opportunities Unlimited, a project that influenced President Lyndon Johnson's War on Poverty program.

Your many books include *Prejudice and Your Child* (1955), *Dark Ghetto: Dilemmas of Social Power* (1965), and *The Negro American* (1966).

3.2 Game Objectives

As an initial member of the Research committee, you'll be called upon to judge the scientific legitimacy and ethical acceptability of proposed research programs. You should make yourself familiar with the sections of the game book titled 'A Primer on Research Methods' and 'Ethics of Human Research'. Your gamemaster will give you an additional sheet outlining the responsibilities of members of the research committee in evaluating proposals. In the first year, you are likely to get a proposal to the research committee that proposes an experiment on a child. It is vital that you prompt the committee as a whole to seriously consider the nature of 'consent' in the context of power dynamics and social inequality.

Get the APA to adopt an Affirmative Action policy to increase the number of minority psychologists and psychiatrists.

Oppose the passing of the 'Leona Tyler principle', which states:

"As citizens, members of the APA have the right to advocate for any cause through the myriad of political advocacy organizations, but when psychologists and psychiatrists speak for the profession through APA public stances and proclamations, it should be from science and professional experience."

On occasion psychiatrists are asked for an opinion about an individual who is in the light of public attention or who has disclosed information about himself/herself through public media. In such circumstances, a psychiatrist may share with the public his or her expertise about psychiatric issues in general. However, it is unethical for a psychiatrist to offer a professional opinion unless he or she has conducted an examination and has been granted proper authorization for such a statement."

Get elected president. That can be before or after your symposium.

You are neutral on the definition of mental illness.

Specific Assignments

Initial Committee Membership

Committee 3.1 (Clark) Initial member of the Research committee, with term expiring 1973.

- Initial member of the Research committee.
- Should become President, with the intention of opposing or reversing the Leona Tyler Principle, if it comes up.

Demedicalization

Officially neutral, but your expertise in the psychological aspects of oppression should make you sensitive to the plight of homosexuals.

Research

Your paper should use the real, historical example of the Supreme Court's Brown decision and footnote 11. You'll need to present the experiments conducted, the data collected, and the impact it had on the Supreme Court. Citations to the actual papers are attached in 'Further Reading' below. Clark's actual Presidential address is cited in 'Must Read' below.

Assignment 3.1 (Clark - 1974) Present a paper on the role of psychology in social change, highlighting the psychological impact of oppression. If elected President, this will be the Presidential Address. If not, do it as your symposium paper in 1974.

Association Business /DSM-III

In 1975, propose an affirmative action plan for psychology and psychiatry. Here's the real language. You should adapt it to your needs:

THERE IS a continuous need to increase the number of minority psychiatrists; the American Psychiatric Association has consistently demonstrated its commitment to the principle of affirmative action as reflected in its efforts of recruitment and training of minority psychiatrists. APA has previously developed and instituted policies recognizing and supporting the special mental health issues of minority populations; however, there are serious threats to affirmative action programs that have facilitated the following endeavors: APA reaffirms these commitments and policies by 1) issuing a public statement drawing attention to the potential deleterious effects that such threats pose to the delivery of health services to minority groups; 2) actively participating with other professional and educational groups to assure continued recruitment and training of minority candidates in medical disciplines; and 3) further exploring and developing, through its appropriate components, mechanisms to assure continued implementation of these commitments.

Social responsibilities of social scientists

Organize, propose and participate in a symposium on the role of psychology as a mechanism of social change or more generally, on the social responsibilities of scientists, preferably in 1973. Chomsky and Marmor may be a good choices as a co-panelists. You should present a paper on psychology's role for social good. If you are elected

Assignment 3.2 (Clark - 1974) Organize, propose and participate in a symposium on the role of psychology as a mechanism of social change or more generally, on the social responsibilities of scientists, preferably in 1974. If you have not yet give your paper, do it as part of this symposium. If you have already given it as presidential address, use this opportunity to introduce the Affirmative Action policy you will be proposing in 1975.

president, it should be your presidential address. If not, it can be a part of the symposium.

Definition of ‘mental illness’ and fission of the APA

Officially neutral.

3.3 Must Read

Phillips, L. “Recontextualizing Kenneth B. Clark: An Afrocentric Perspective on the Paradoxical Legacy of a Model Psychologist-Activist” from Evolving Perspectives on the History of Psychology, Pinkren, W & Dewsbury, D.

Clark, K. (1971) “The pathos of power: A psychological perspective” American Psychologist 26(12) 1047–1057

Further Reading

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Clark, Kenneth B. & Clark, Mamie K. (1940). Skin color as a factor in racial identification of negro preschool children. Journal of Social Psychology, S.P.S.S.I. Bulletin, 11, 159–169. [Available at psychclassics: <http://psychclassics.yorku.ca/Clark/Skin-color/>]

Cook, S. W. (1957). “Desegregation: A Psychological Analysis.” The American Psychologist 12: 1–13. [Presidential address at the Annual Meeting of the New York State Psychological Association, 1956]

4 D. Fordney Settlage, MD

4.1 Your Biography

You were born in 1940. You became an American physician and sex therapist best known for your work on sexual function and dysfunction. Your BS is from the University of Arizona (1960) and your MD (1964) from University of California at Los Angeles.

You began your career looking at sperm motility after intercourse, but you've also been interested in the sexual experiences among teenaged girls.

You are currently working on a comprehensive overview of heterosexual dysfunction. You served as Assistant Professor, Obstetrics and Gynecology Division of Reproductive Biology at the Los Angeles County-USC Medical Center.

You were an early critic of gynecologist James C. Burt, sometimes called the 'Love Surgeon' and his involuntary surgeries on the vulvas of patients. Burt performed a number of reconstructive surgeries (perhaps hundreds) on women who had recently given birth, when they were still under the effects of episiotomy. In his words 'Women are structurally inadequate for intercourse. This is a pathological condition amenable to surgery.' In franker terms, he also said that his surgery would turn women into "horny little mice" and asserted that "the difference between rape and rapture is salesmanship." (1957, quoted in a 1988 NY Times article following his censorship by the Ohio Medical Board). You, as D. Fordney-Settlage has said, "Dr. Burt is a nice person but he is a zealot and that makes him dangerous."

During your tenure at the University of Arizona Medical Center's fertility clinic, you assisted in helping hundreds of couples with fertility issues bring babies to term. During the course of your career, a debate ensued as to whether the availability of contraceptives was promoting pre-marital sex.

You conducted a study of 500 unwed teenage girls (aged 13–17) that had sought professional help in obtaining contraceptives. Your findings provided sound grounds to conclude that not only did the availability of contraceptives fail in promoting sexual behavior, but

that a lack of contraceptive availability would not deter teenage girls from participating in sexual behavior. The study demonstrated the sexual behavior in teenage girls pre-dated the use of contraceptives, and that when available, teenage girls would make use of such options in order to prevent unwanted pregnancy, impediments to future and current education, forced marriage, illegitimacy, and abortion.

4.2 Game Objectives

Your primary objective is to get on the Spitzer taskforce to advocate for psychosexual disorders in the new taxonomy. Make certain that female sexuality is not maligned as a psychological disorder in the DSM-III or the definition of 'mental health.' Your secondary objective is to advocate for women's sexual health more broadly. You have a long-standing friendship with both Richard Green and Harold Lief.

There is very little research on women's sexuality. Kinsey's famous study causes a good deal of consternation. Even today, the issue of homosexuality seems largely to be about male homosexuality, with lesbianism hardly mentioned as an afterthought. Work with Leona Tyler in her efforts to get a Committee on Women in Psychology, and more importantly for you, the Committee on the Psychology of Women.

The issue of female sexuality has become particularly hot recently with the popularization of oral contraceptives. While most people favor contraceptives for women who are already sexually active, there is a great controversy over whether allowing young women access to contraceptives will make sexually active. You are interested in settling that question.

Specific Assignments

Initial Committee Membership No initial committee membership

Committee 4.1 (Fordney-Settlage - 1973)
No initial committee memberships.

Demedicalization

Officially neutral, but your interest in equal medical and psychological treatment for women extends to the treatment of lesbians.

Research

In 1972, propose to the research committee a study on the sexual experiences of younger women who are seeking contraceptives for the first time, based on her actual 1973 paper.

In 1975, give a paper critiquing the history of psychiatric and psychological theory of sexuality as overly focused on male sexuality. You should be specific here – the game book appendices contain the

Assignment 4.1 (Fordney-Settlage)
Give a paper critiquing the history of psychiatric and psychological theory of sexuality as overly focused on male sexuality. Preferably 1975.

small amount of work by Freud on Lesbianism, and Krafft-Ebbing's *Psychopathia Sexualis* contains a brief mention at the very end. Jung's theories of female homosexuality are worth exploring as well. Consider how 'normal' sexual maturation has been defined in male terms, and how the explanations are unequal (i.e. compare the 'Oedipal complex' to the 'Electra complex'). This will take some work. Be specific and as thorough as you can – it will be important to consider as the DSM-III is considered.

Association Business /DSM-III

As you straddle the fence between the MD and PhDs, the Medical doctors and the Psychologists, you are in the unique position to create a compromise between Albee and Spitzer regarding the rights and duties of the psychologists and psychiatrists in the treatment of patients in 1972.

Make certain that female sexuality is not maligned as a psychological disorder in the DSM-III or the definition of 'mental health.'

Support Leona Tyler's efforts to encourage research on women's psychology

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

You are neutral on the **definition of mental illness**, so long as it isn't gendered in some tacit way.

Fission: Join R. Green in founding the International Academy of Sex Research if the APA breaks up.

4.3 Must Read

Fordney Settlage, DS, Baroff S, Cooper D 1973. Sexual experience of younger teenage girls seeking contraceptive assistance for the first time. *Family Planning Perspectives*, Vol. 5, No. 4 Autumn, 1973, p 223–226 (available on Jstor)

Fordney-Settlage DS 1975. Heterosexual dysfunction: Evaluation of treatment procedures. *Archives of Sexual Behavior*, Volume 4, Number 4 /July, 1975 (DOI: 10.1007/BF01541722)

Secondary Sources

http://www.museumstuff.com/learn/topics/Diane_Fordney::sub::Selected_Publications
http://www.museumstuff.com/learn/topics/Diane_Fordney::sub::Career

5 John Fryer, MD

5.1 Biography

You were born in Kentucky in 1938. You were an academically talented kid who entered Medical School at Vanderbilt at the age of 19. After completing your internship at Ohio State, you moved to Philadelphia, where you still live today.

You are often described as a “large” man, both in body and personality. While others describe you as “flamboyant” and “outspoken,” you prefer “farm boy.” But you recognize that you can be combative and gruff in pursuit of your ideals. These attributes have not always made your life easy, especially since you are gay. You were forced to leave the University of Pennsylvania’s psychiatry residency program when your sexual orientation was discovered (recall that mentally ill people cannot practice psychiatry), but were able to complete your certification at Norristown State Hospital in Philadelphia.

You eventually were hired into the psychiatric department of the hospital of Temple University, where you remain. Talented in multiple things, you serve as the organist for St. Peter’s Episcopal Church in Germantown, the neighborhood of Philadelphia where you live.

You are also a member of the secret organization of gay psychiatrists who quietly met at APA meetings, known unofficially as the “Gay-PA.”

5.2 Game Objectives

Calling yourself ‘Dr. H. Anonymous’, give a talk entitled “I am a homosexual, and a psychiatrist.” during the 1971 panel discussion “Psychiatry: Friend or Foe to Homosexuals: A Dialogue” *wearing a mask*. The mask is really a bit of theater – everyone who matters knows who you really are. But you’re making a point: that mentally ill people cannot practice psychiatry. And as homosexuality is classified as a mental illness, so technically, homosexuals should not be allowed to practice psychiatry. But they do – many homosexuals are very good psychiatrists, including yourself. It follows, therefore, that the classification is

not only unhelpful to homosexuals themselves, it is actually harming the discipline of psychiatry.

The text of Dr. H. Anonymous' speech was widely available on the internet, but as of Feb, 2011, it appears to have been removed. I'll include it below, but it is important that your speech *models* the original, not *replicates it*. You need to write this in your own words, but making arguments that are along the same lines as the original.

Specific Assignment

Initial Committee Membership None

Committee 5.1 (Fryer) None specified, but eligible to run for any.

Demedicalization

Strong proponent for demedicalization, member of the GayPA. Work with your fellow Gay-PA members to remove 'homosexuality' from the DSM and opposing any attempt to reintroduce any substitute classification.

Research

Association Business /DSM-III

In 1974, propose that the deem ban the use of aversion therapy in the treatment of homosexuality immoral. You should research some of the first-hand stories available on <http://www.treatmentshomosexuality.org.uk/> to make your case.

Assignment 5.1 (Fryer) "I am a homosexual, and a psychiatrist." during the scheduled 1971 panel discussion "Psychiatry: Friend or Foe to Homosexuals: A Dialogue"

Social responsibilities of social scientists

Indeterminant

Definition of 'mental illness' and fission of the APA

You are neutral on the **definition of mental illness**.

5.3 Must Read

Dr. H. Anonymous speech:

"Thank you, Dr. Robinson. I am a homosexual. I am a psychiatrist. I, like most of you in this room, am a member of the APA and am proud to be a member. However, tonight I am, insofar as in it is possible, a 'we.' I attempt tonight to speak for many of my fellow gay members of the APA as well as for myself. When we gather at these conventions, we have a group, which we have glibly come to call the Gay-PA. And several of us feel that it is time that real flesh and blood stand up before

you and ask to be listened to and understood insofar as that is possible. I am disguised tonight in order that I might speak freely without conjuring up too much regard on your part about the particular WHO I happen to be. I do that mostly for your protection. I can assure you that I could be any one of more than a hundred psychiatrists registered at this convention. And the curious among you should cease attempting to figure out who I am and listen to what I say.

"We homosexual psychiatrists must persistently deal with a variety of what we shall call 'Nigger Syndromes.' We shall describe some of them and how they make us feel.

"As psychiatrists who are homosexual, we must know our place and what we must do to be successful. If our goal is academic appointment, a level of earning capacity equal to our fellows, or admission to a psychoanalytic institute, we must make certain that no one in a position of power is aware of our sexual orientation or gender identity. Much like the black man with the light skin who chooses to live as a white man, we cannot be seen with our real friends - our real homosexual family - lest our secret be known and our dooms sealed. There are practicing psychoanalysts among us who have completed their training analysis without mentioning their homosexuality to their analysts. Those who are willing to speak up openly will do so only if they have nothing to lose, then they won't be listened to.

"As psychiatrists who are homosexuals, we must look carefully at the power which lies in our hands to define the health of others around us. In particular, we should have clearly in our minds, our own particular understanding of what it is to be a healthy homosexual in a world, which sees that appellation as an impossible oxymoron. One cannot be healthy and be homosexual, they say. One result of being psychiatrists who are homosexual is that we are required to be more healthy than our heterosexual counterparts. We have to make some sort of attempt through therapy or analysis to work problems out. Many of us who make that effort are still left with a sense of failure and of persistence of "the problem." Just as the black man must be a super person, so must we, in order to face those among our colleagues who know we are gay. We could continue to cite examples of this sort of situation for the remainder of the night. It would be useful, however, if we could now look at the reverse.

"What is it like to be a homosexual who is also a psychiatrist? Most of us Gay-PA members do not wear our badges into the Bayou Landing [a gay bar in Dallas] or the local Canal Baths. If we did, we could risk the derision of all the non-psychiatrist homosexuals. There is much negative feeling in the homosexual community towards psychiatrists. And those of us who are visible are the easiest targets from which the angry can vent their wrath. Beyond that, in our own hometowns, the chances are that in any gathering of homosexuals, there is likely to be any number of patients or paraprofessional employees who might try to hurt us professionally in a larger community if those communities enable them to hurt us that way.

"Finally, as homosexual psychiatrists, we seem to present a unique ability to marry ourselves to institutions rather than wives or lovers. Many

of us work 20 hours daily to protect institutions that would literally chew us up and spit us out if they knew the truth. These are our feelings, and like any set of feelings, they have value insofar as they move us toward concrete action.

"Here, I will speak primarily to the other members of the Gay-PA who are present, not in costume tonight. Perhaps you can help your fellow psychiatrist friends understand what I am saying. When you are with professionals, fellow professionals, fellow psychiatrists who are denigrating the "faggots" and the "queers," don't just stand back, but don't give up your careers, either. Show a little creative ingenuity; make sure you let your associates know that they have a few issues that they have to think through again. When fellow homosexuals come to you for treatment, don't let your own problems get in your way, but develop creative ways to let the patient know that they're all right. And teach them everything they need to know. Refer them to other sources of information with basic differences from your own so that the homosexual will be freely able to make his own choices.

"Finally, pull up your courage by your bootstraps, and discover ways in which you and homosexual psychiatrists can be closely involved in movements which attempt to change the attitudes of heterosexuals - and homosexuals - toward homosexuality. For all of us have something to lose. We may not be considered for that professorship. The analyst down the street may stop referring us his overflow. Our supervisor may ask us to take a leave of absence. We are taking an even bigger risk, however, not accepting fully our own humanity, with all of the lessons it has to teach all the other humans around us and ourselves. This is the greatest loss: our honest humanity. And that loss leads all those others around us to lose that little bit of their humanity as well. For, if they were truly comfortable with their own homosexuality, then they could be comfortable with ours. We must use our skills and wisdom to help them - and us - grow to be comfortable with that little piece of humanity called homosexuality."

– Via the Journal of Gay and Lesbian Psychotherapy

Secondary Sources

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6 Frank Kameny and/or Barbara Gittings, Activists

6.1 Frank Kameny Biography

You were born in Queens, New York to a middle class Jewish family. Your first academic interest was in science, and by the age of seven, you pledged your commitment in becoming an astronomer. You began your undergraduate degree in physics at Queens College, but you were interrupted by WWII, where you served as an Army Mortar crewman in Europe. Your mother described you as excessively shy, but your time spent abroad during WWII brought you out of your shell. You returned from the war, finished your undergraduate degree, and went on to receive your PhD in physics from Harvard University in 1956 after being awarded a scholarship.

You have a dominating personality that is a cross between egotism and revolutionary. You have a habit of questioning the status quo and supporting your own conceptions. When you were a teenager, you proclaimed yourself an atheist to your parents. This attitude continued into your teaching fellow years at Harvard where you refused to sign a loyalty oath without attaching qualifiers, stating, "If society and I differ on something, I am willing to give the matter a second look...If we still differ, than I am right and society is wrong."¹

Kameny was not so much concerned with changing society in so much as he refused to let society effect his own life. You avoided the exploration of your sexuality, and were therefore unsure of your orientation. You preferred spending your time in observatories. While finishing your dissertation in Arizona, you became friendly with a group of homosexuals and attended a gay bar, to which you stated, "I've come home". You took full advantage of your sexual revelation, and spent the near future making up for lost time.

After receiving your doctorate, you worked as teaching assistant for the astronomy department at Georgetown University, before transferring to the Army Map Service in the heat of the Cold War. During this phase of life, you helped the army more accurately target their nuclear weapons by using points around the U.S to calculate the distance towards targets around the world. In 1957, Army security officials

¹ Quoted in Bullough, V.L. (2002). Before Stonewall, p. 210

questioned your sexuality, to which you responded by asserting that your personal life was not the business of the federal government. You were immediately dismissed, leaving you jobless and dependent upon charity during the dawn of the space race; a time that should have been the greatest opportunity of your life. The Federal government's position was that homosexuality made a person unsuitable for federal employment. You had been dismissed just as hundreds had been before you, but you became the first to ever officially challenge this policy. Initially, legal efforts failed, and even your lawyer determined it best to abandon the case. You pressed on, outlining a case in which you argued that the discrimination you experienced was no less illegal and no less odious than discrimination based upon religious or racial grounds. After citing the Kinsey report, you presented reasonable grounds to believe that 15 million U.S citizens were gay and subject to the same persecution.

When the Supreme Court refused to hear the case once more, you moved to create a movement by founding the Mattachine Society of Washington, which was named after a group of medieval court jesters who were allowed to articulate unpopular truths under the secrecy of masks. The Mattachine Society of Washington was one of the first homosexual organizations to act under the mission of political activism, and focus its efforts on public awareness; its mission: "to act by any lawful means to secure for homosexuals the right to life, liberty, and the pursuit of happiness". Your influence stemmed heavily from surveying the black civil rights movement, and you eventually shifted homosexuality from a mental health issue to a civil liberties issue. You argued that your opposition was basing its arguments on emotion rather than reason, which prevented the pursuit of education and awareness. You claimed that homosexuals were more likely to have an employment issue than they were a mental health issue due to their sexual orientation.

You enacted a civil rights militancy strategy, taking to the streets, media, and the courts. Although your movement was legally focused, you understood that homosexuality's classification as an illness was the main obstacle to overcome. You used your background in the sciences to demonstrate that the current view of homosexual psychology was based on psychiatric observations made on behalf of mental patients only, thus ignoring the millions of healthy gay Americans spread throughout the country. Your organization was the first that claimed homosexuality to be, "a preference, orientation, or propensity, on par with, and not different in kind from, heterosexuality". However, negative stigmas for homosexuality existed in propensity, thus counteracting the logic of your claims. You modeled a slogan after the African American movement's, "Black is Beautiful", thus coining

the phrase, "Gay is Good". America loves slogans, and the country's "gut" began to shift into your corner. Today you are considered a pioneer in the homosexual civil rights movements, and cited as one of its most important figures.

When the Department of Defense launched an investigation into the sexuality of a young man named Benning Wentworth in 1969, you took the opportunity to testify. Charles Socarides was an expert witness for the prosecution. Your speech, "We Throw Down the Gauntlet" is not a classic in the gay rights movement. It is available here: <http://www.kamenypapers.org/gauntlet.htm>.

6.2 *Game Objectives*

You are the leader of the Gay-PA. After the Stonewall protests of 1969, you've become committed to the idea that street-level protests and direct nonviolent confrontation ('Zaps') are the most effective mechanisms of social change. You organized the San Francisco protests of 1970, and you have some ideas for 1971 and 1972.

The Gay-PA (in reality, the Chicago branch of the Gay Liberation Front) should issue something like following proclamation at the beginning of the conference in 1971 (distribute it as you see fit – i.e. post it to the door of the room, hand it out as players enter, etc.). It is vital that the draft is approved by the other members of the Gay-PA (Fryer, Hooker, Gold), and you should consult the secret 'young turks' (Marmor, Spiegel):

The establishment school of psychiatry is based on the premise that people who are hurting should solve their problems by "adjusting" to the situation. For the homosexual, this means becoming adept at straight-fronting, learning how to survive in a hostile world, how to settle for housing in the gay ghetto, how to be satisfied with a profession in which homosexuals are tolerated, and how to live with low self-esteem.

The adjustment school places the burden on each individual homosexual to learn to bear his torment. But the "problem" of homosexuality is never solved under this scheme; the anti-homosexualist attitude of society, which is the cause of the homosexual's trouble, goes unchallenged. And there's always another paying patient on the psychiatrist's couch.

Dr. Socarides claims, "A human being is sick when he fails to function in his appropriate gender identity, which is appropriate to his anatomy." Who determines "appropriateness"? The psychiatrist as moralist? Certainly there is no scientific basis for defining "appropriate" sexual behavior.... Other than invoking moral standards, Dr. Socarides claims that homosexuality is an emotional illness because of the guilt and anxieties in homosexual life. Would he also consider Judaism an emotional illness because of the paranoia which Jews experienced in Nazi Germany?

We homosexuals of gay liberation believe that the adjustment school of therapy is not a valid approach to society.

We refuse to adjust to our oppression, and believe that the key to our mental health, and to the mental health of all oppressed peoples in a racist, sexist, capitalist society, is a radical change in the structure and accompanying attitudes of the entire social system.

Mental health for women does not mean therapy for women—it means the elimination of male supremacy. Not therapy for blacks, but an end to racism. The poor don't need psychiatrists (what a joke at 25 bucks a throw!)—they need democratic distribution of wealth. OFF THE COUCHES, INTO THE STREETS!

We see political organizing and collective action as the strategy for effecting this social change. We declare that we are healthy homosexuals in a sexist society, and that homosexuality is at least on part with heterosexuality as a way for people to relate to each (know any men that don't dominate women?).

Since the prevalent notion in society is that homosexuality is wrong, all those who recognize that this attitude is damaging to people, and that it must be corrected, have to raise their voices in opposition to antihomosexism. Not to do so is to permit the myth of homosexual pathology to continue and to comply in the homosexual's continued suffering from senseless stigmatization... We furthermore urge psychiatrists to refer to the homosexual patients to gay liberation (and other patients who are the victims of oppression to relevant liberation movements). Once relieved of patients whose guilt is not deserved but imposed, psychiatrists will be able to devote all their efforts to the rich—who do earn their guilt but not their wealth, and can best afford to pay psychiatrists' fees.

We are convinced that a picket and a dance will do more for the vast majority of homosexuals than two years on the couch. We call on the medical profession to repudiate the adjustment approach as a solution to homosexual oppression and instead to further homosexual liberation by working in a variety of political ways (re-educating the public, supporting pickets, attending rallies, promoting social events, etc.) to change the situation of homosexuals in this society.

Join us in the struggle for a world in which all humans are free to love without fear or shame.

(quoted in Rosario, 2002)

As a non-member of the APA, you cannot vote on the definition of mental illness. But be sure to advocate for one that does not penalize or marginalize those with harmless social differences.

Specific Assignments

Initial Committee Membership None

Committee 6.1 (Kameny) Not a member of the APA, so not eligible for committee memberships

Demedicalization

Participate in the 1971 panel discussion with John Fryer and Evelyn Hooker. The texts of Kameny and Gitting's actual speeches are not recorded (to my knowledge). Eyewitnesses record that Kameny was more confrontational and antagonistic to psychiatry while Gittings was more conciliatory. Kameny is quoted as arguing that "We're rejecting you all as our owners. We possess ourselves and we speak for ourselves and we will take care of our destines." (Quoted in Bayer, 2002 p. 106).

Petition the conference committee for a display booth for 1972 titled 'Gay, Proud and Healthy', get Fryer and others to sit at the booth and take questions. As a student, if you are interested, there are photos of the actual booth available at <http://digitalgallery.nypl.org/nypldigital/id?1606166>. You should distribute a pamphlet as well (the Kameny papers archive has a copy of the original, for inspiration).

You should maintain 'zapping' events where you determine discrimination, or the intellectual basis for discrimination, occur.

Research

Help organize a symposium in 1973 on the topic of "Should Homosexuality Be in the APA Nomenclature?"

Association Business /DSM-III

Indeterminate

Assignment 6.1 (Kameny) Give a paper during the 1971 panel discussion with John Fryer and Evelyn Hooker.

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

Indeterminate

6.3 Must Read

Read the legal and personal documents of Frank Kameny at <http://www.kamenypapers.org/index.htm>

Read the story of the 1971 APA in DC: <http://www.rainbowhistory.org/html/apazap.htm>

Story of Barbara Gittings: <http://www.rainbowhistory.org/gittings.htm> Siegelman, M. (1972). "Adjustment of Homosexual and Heterosexual Women." British Journal of Psychiatry 120, 477-81.

Secondary Sources

Shea, Christopher D. "Before Stonewall: Activists for Gay and Lesbian Rights in Historical Context." *Archives of Sexual Behavior* 36.2 (2007): 209–15. Print. Glbtq.com, "Gittings, Barbara (1932–2007)" http://www.glbtq.com/social-sciences/gittings_b.html

Bullough, Vern, ed. (2002) *Before Stonewall: Activists for gay and lesbian rights in historical context*. Harrington Park Press. See esp. Ch 36 & 39, a biographies of Kameny & Gittings written by Gittings' partner, Kay Tobin Lahusen

Gallo, Marcia. (2006). *Different Daughters: A History of the Daughters of Bilitis and the Rise of the Lesbian Rights Movement*. Carroll & Graf Publishers.

Katz, Jonathan. (1976) *Gay American History: Lesbians and Gay Men in the U.S.A.* Crowell.

Marcus, Eric. (2002) *Making Gay History: The half-century fight for lesbian and gay equal rights*. Perennial Press.

Moran, M. (2006) "Activists Forced Psychiatsts to Look Behind Closet Door" *Psychiatric News*, 41 (21) p. 17

Tobin, Kay and Wicker, Randy. (1975) *The Gay Crusaders*. Arno Press.

7 Frank Kameny and/or Barbara Gittings, Activists

7.1 Barbara Gittings Biography

You are a Librarian, activist and a pioneer of the American gay rights movement. You founded the New York chapter of the Daughters of Bilitis and edited its magazine, *The Ladder*.¹ One of your life-long goals has been to get public libraries to provide more information on homosexuality to the public.

You were born on July 31, 1932 in Vienna, Austria. Your father, a career diplomat, was transferred back to the US in 1940, and your family settled in Delaware.

During your freshman year at Northwestern in 1949, you sought out therapy because you believed you might be a lesbian. The psychotherapist offered to cure you. Rather than submit to treatment, you went to the libraries to find information on homosexuality. The few resources you discovered were filed under 'perverted' or 'abnormal.' Moreover, the material on offer dealt almost exclusively with gay men.

As a result of the time you spent in the library researching homosexuality, you failed out of Northwestern. When you returned 'back east,' you moved to Philadelphia.

But you continued your research. In Philadelphia, you discovered a book titled *The Homosexual in America* (1951), written under the pseudonym 'Donald Webster Cory.' You contacted the publisher and eventually contacted the author Edward Sagarin, who introduced you to the fledgling homophile movement, including the Mattachine Society.

When you went out to California to meet with the publishers of ONE, you met Phyllis Lyon and Del Martin, leaders of the lesbian organization Daughters of Bilitis. They asked you to found a chapter in New York, even though it meant a commute from Philly. You accepted.

At a DOB meeting in 1961, you met another activist named Kay Lahusen. The two of you fell in love and soon became partners for life.

You succeeded Lyon and Martin as editor of DOB's magazine, *The Ladder*. During your three-year editorship, *The Ladder* began to

¹ For more on the early development of the Daughters of Bilitis and its magazine, check out: <http://www.buzzfeed.com/h2/pulse/skarlan/the-ladder-the-first-lesbian-magazine-established-in-the-195>

publish articles critiquing medical authorities as well as the notion that homosexuals were sick.

In the early 1960's, your position in the DOB lead you to meet and collaborate with Frank Kameny. Kameny's Washington DC chapter of the Mattachine Society was becoming more and more aggressive in its public advocacy, and you were encouraged. In 1965, you joined Kameny in a picket of the White House. And the two of you organized annual demonstrations on July 4 at Independence Hall in Philly.

These tactics were not entirely welcome in the community at the time. You left the DOB because of these conflicts and joined Kameny's Mattachine society full time.

7.2 *Barbara Gittings Biography*

You are a Librarian, activist and a pioneer of the American gay rights movement. You founded the New York chapter of the Daughters of Bilitis and edited its magazine, *The Ladder*.² One of your life-long goals has been to get public libraries to provide more information on homosexuality to the public. You were born on July 31, 1932 in Vienna, Austria. Your father, a career diplomat, was transferred back to the US in 1940, and your family settled in Delaware. During your freshman year at Northwestern in 1949, you sought out therapy because you believed you might be a lesbian. The psychotherapist offered to cure you. Rather than submit to treatment, you went to the libraries to find information on homosexuality. The few resources you discovered were filed under 'perverted' or 'abnormal.' Moreover, the material on offer dealt almost exclusively with gay men. As a result of the time you spent in the library researching homosexuality, you failed out of Northwestern. When you returned 'back east,' you moved to Philadelphia. But you continued your research. In Philadelphia, you discovered a book titled *The Homosexual in America* (1951), written under the pseudonym 'Donald Webster Cory.' You contacted the publisher and eventually contacted the author Edward Sagarin, who introduced you to the fledgling homophile movement, including the Mattachine Society. When you went out to California to meet with the publishers of ONE, you met Phyllis Lyon and Del Martin, leaders of the lesbian organization Daughters of Bilitis. They asked you to found a chapter in New York, even though it meant a commute from Philly. You accepted. At a DOB meeting in 1961, you met another activist named Kay Lahusen. The two of you fell in love and soon became partners for life. You succeeded Lyon and Martin as editor of DOB's magazine, *The Ladder*. During your three-year editorship, *The Ladder* began to publish articles critiquing medical authorities as well as the notion that homosexuals were sick. In the early 1960's, your posi-

² For more on the early development of the Daughters of Bilitis and its magazine, check out: <http://www.buzzfeed.com/h2/pulse/skarlan/the-ladder-the-first-lesbian-magazine-established-in-the-1950s>

tion in the DOB lead you to meet and collaborate with Frank Kameny. Kameny's Washington DC chapter of the Mattachine Society was becoming more and more aggressive in its public advocacy, and you were encouraged. In 1965, you joined Kameny in a picket of the White House. And the two of you organized annual demonstrations on July 4 at Independence Hall in Philly. These tactics were not entirely welcome in the community at the time. You left the DOB because of these conflicts and joined Kameny's Mattachine society full time.

Specific Assignments

Initial Committee Membership None

Committee 7.1 (Gittings) Not a member of the APA, so indelible for committee memberships.

Demedicalization

Participate in the 1971 panel discussion with John Fryer and Evelyn Hooker. The texts of Kameny and Gitting's actual speeches are not recorded (to my knowledge), but Gittings' was probably titled "Gay, Proud and Healthy."

You should maintain 'zapping' events where you determine discrimination, or the intellectual basis for discrimination, occur.

Petition the conference committee for a display booth for 1972 titled 'Gay, Proud and Healthy', get Fryer and others to sit at the booth and take questions. As a student, if you are interested, there are photos of the actual booth available at <http://digitalgallery.nypl.org/nypldigital/id?1606166>. You should distribute a pamphlet as well (the Kameny papers archive has a copy of the original, for inspiration).

Research

Propose a study, similar to E. Hooker's, on lesbians, recruiting from the Daughters of Bilitis in 1971. You can see the gamemaster or the original Siegelman, 1972.

Association Business /DSM-III

Indeterminate

Assignment 7.1 (Gittings) Present during the panel discussion in 1971 on your experiences.

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

Indeterminate

7.3 Must Read

Read the legal and personal documents of Frank Kameny at <http://www.kamenypapers.org/index.htm>

Read the story of the 1971 APA in DC: <http://www.rainbowhistory.org/html/apazap.htm>

Story of Barbara Gittings: <http://www.rainbowhistory.org/gittings.htm>

Siegelman, M. (1972). "Adjustment of Homosexual and Heterosexual Women." *British Journal of Psychiatry* 120, 477–81.

Secondary Sources

Shea, Christopher D. "Before Stonewall: Activists for Gay and Lesbian Rights in Historical Context." *Archives of Sexual Behavior* 36.2 (2007): 209–15. Print. Glbtq.com, "Gittings, Barbara (1932–2007)" http://www.glbtq.com/social-sciences/gittings_b.html

Bullough, Vern, ed. (2002) Before Stonewall: Activists for gay and lesbian rights in historical context. Harrington Park Press. See esp. Ch 36 & 39, a biographies of Kameny & Gittings written by Gittings' partner, Kay Tobin Lahusen

Gallo, Marcia. (2006). *Different Daughters: A History of the Daughters of Bilitis and the Rise of the Lesbian Rights Movement*. Carroll & Graf Publishers.

Katz, Jonathan. (1976) *Gay American History: Lesbians and Gay Men in the U.S.A.* Crowell.

Marcus, Eric. (2002) *Making Gay History: The half-century fight for lesbian and gay equal rights*. Perennial Press.

Moran, M. (2006) "Activists Forced Psychiatsts to Look Behind Closet Door" *Psychiatric News*, 41 (21) p. 17

Tobin, Kay and Wicker, Randy. (1975) *The Gay Crusaders*. Arno Press.

8 Stanley Milgram, PhD

8.1 Your Biography

You are Stanley Milgram, social psychologist. You were born August 15, 1933 to a family of Jewish immigrants from Germany who had settled in the Bronx and opened a bakery. By all accounts, you had a warm and untroubled childhood.

Your intelligence was spotted early in life and encouraged by your parents. In one legendary event, your experiments with your chemistry set brought the local fire department. You are most famous for your 'obedience' experiments starting in 1961 at Yale. These experiments sought to understand how normal people could do horrible things to others in the presence of an authority figure. Many people have drawn parallels between your experiments and the behavior of Nazi soldiers in the Holocaust, or even the actions of academics during the McCarthy era in the US. One biographer (Blass, 2004) has noted that your Bar Mitzvah speech was on the plight on European Jews under Hitler, and the McCarthy purges at Queens College occurred when you were enrolled.

After completing your undergraduate study in 1954, you applied to Harvard's Department of Social Relations, an interdisciplinary program that included social psychology, sociology, anthropology and clinical psychology. You were rejected. You persisted, however, taking summer classes in psychology. Eventually, they let you in provisionally. You were admitted to the full program after a year.

There you worked with Solomon Asch, who was investigating conformity to group thinking by testing whether a subject would give the wrong answer to a question if it agreed with the group of experimental confederates. For your dissertation, you extended this research by comparing Norwegians and French.

You moved to Yale in 1960, where you began designing your famous experiment. You submitted proposals to the National Science Foundation (NSF), the National Institutes of Mental Health (NIMH) and the Office of Naval Research.

You moved back to Harvard to direct the Department of Social Re-

lations in 1963, but left for CUNY in 1966. Your famous 'obedience' studies were conducted while you were at Yale. They have been the subject of great controversy, both from a scientific and ethical perspective. As a student, make sure you are confident in the experimental protocol as well as the results. See Milgram 1963 and 1965 for the primary source report.

You now chair the graduate program in social psychology at CUNY.

In 1967, you published the famous 'small world' study, in which you randomly selected individuals in Omaha, Nebraska and Wichita, Kansas, and asked them to try to deliver a packet of information to a target person in Boston, Mass. If they did not know the target personally, they should give the letter to someone who might be able to pass it on. Milgram then counted the number of contacts handled the packet in transit – the average was 5.5, giving us the common myth of 'six degrees of separation.'

8.2 *Game Objectives*

Get onto the research committee. While you have always had an interest in research ethics, the criticism of your experiments have made you develop something of an expertise in the APA standards (that means, of course, that you, as the student, need to develop an expertise with both Milgram's experimental design and the APA standards that are included in the gamebook).

You are neutral on the issue of the definition of mental illness.

Specific Assignments

Initial Committee Membership

You start as a member-at-large on the Board of Directors, term ends 1971 (Large classes only)

Committee 8.1 (Milgram) Member-at-large of the Board of Directors, with term ending 1971.

Demedicalization

Indeterminate

Research

Propose an experiment on campus testing the 'small world' problem in the campus environment in 1974. Present your results (or, if the experiment is not completed in time, or denied by the research committee, the results of Milgram's original 1967 experiment) to the conference.

Association Business /DSM-III

Social responsibilities of social scientists

Oppose the proposal (from Clark, 1975) to create an affirmative action plan for psychology and psychiatry, on the grounds that it is an unwarranted authoritarian intervention in personal matters. Milgram is quoted in Blass, 2004 (p. 201) as saying (in 1971):

"There is some sense of progress and movement at the Graduate Center. A big question, however, is whether intellectual standards or political pressures will prevail in the conduct of our program. Already, we have been asked to recruit faculty on a racial basis, and we make exceptions to our usual admission standards in assessing potential black students. If carried too far, this could have disastrous consequences for the quality of the program. Then I'll leave."

Assignment 8.1 (Milgram) Present a paper summarizing your study of obedience (1963 and 1965) also in 1974, to complement the symposium on the social responsibility of academics.

Definition of 'mental illness' and fission of the APA

Indeterminate

8.3 Must Read

Milgram, S. (1963) "Behavioral study of obedience." Journal of Abnormal and Social Psychology, 67, 371–378. Available at http://www.wadsworth.com/psychology_d/templates/student_resources/0155060678_rathus/ps/ps01.html with permission from Alexandra Milgram.

Milgram, S. (1965). "Some conditions of obedience and disobedience to authority" Human Relations 1965, 18(1), 57–76

Milgram, S. (1967). "The Small World Problem" Psychology Today, 2 p. 60 – 67

Travers, J. & Milgram, S. (1969). "An Experimental Study of the Small World Problem", Sociometry, 32(4), p. 425–443 (available on Jstor)

Milgram, S. (1974), Obedience to Authority; An Experimental View

Milgram, S. (1974), "The Perils of Obedience", Harper's Magazine available at <http://home.swbell.net/revscat/perilsOfObedience.html>

Milgram, S., Liberty; II. J., Toledo. R. and Blacken J. (1956). Response to intrusion in waiting lines. Journal of Personality and Social Psychology. 51, 683–9.

Secondary Sources

Blass, T. (2004). The Man Who Shocked the World: The Life and Legacy of Stanley Milgram. ISBN 0-7382-0399-8

Raver, D. (2010) "Psychography: Stanley Milgram" available at
<http://faculty.frostburg.edu/mbradley/psyography/stanleymilgram.html>

9 Jean Piaget, PhD

9.1 Your Biography

You were born in 1896 in Switzerland to Arthur Piaget, a professor of medieval literature at Neuchâtel University. You write, late in life, that your Mother's poor mental health 'intensely interested' in questions of psychology and psychoanalysis. This interest did not manifest at first, however, as your first passion was natural history. Many commentators have asserted this interest was born of an aversion to anything fantastical or hallucinatory. At the age of 11, you started to work with Paul Godet, Director of the Natural History Museum at Neuchâtel, on molluscs. This work was so successful that when you were only 15, Maurice Bedot, director of the Natural History Museum at Geneva, offered you a position as an assistant in malacology. You declined, explaining that you were too young.

You went to the University of Neuchâtel to study natural sciences, but happened upon a series of lectures by Carl Jung while spending a semester at the University of Zurich. After completing your Doctorate, you took a job teaching at a boy's school in France established by the psychologist Alfred Binet. It was there that you began seriously investigating child development.

Given your training and interest in natural science, you approached the problem of developmental psychology experimentally, testing the problem-solving skills of children of different ages. You concluded, after much observation, that the thinking structures of children differ from adults, and develop during different stages of the child's development. That basic idea is core to all your theories of psychology.

You returned to Switzerland in 1921 as Director of the Rousseau Institute in Geneva. You married Valentine Châtenay in 1923, with whom you had three children: Jacqueline, Lucienne and Laurent.

By carefully interviewing them (in a quasi-clinical setting) while they tried to solve problems you had set up, you developed your idea of 'genetic epistemology,' reflecting your emphasis on the origin of knowledge in development. You theorize that the human mind has certain cognitive structures that correspond to different stages of

development: sensorimotor, preoperational, concrete operational, and formal operational. Contrary to the behaviorists, you do not believe that all learning is a matter of conditioning. But at the same time, contrary to Descartes and the Port-Royalists, you don't believe it is innate either.

According to you, children understand his or her world by adapting to new conditions and information using two basic ways: assimilation and accommodation. 'Assimilation' refers to the child's ability to fit current experiences into an existing conceptual structure, and 'accommodation' when the child has to create a new conceptual structure to understand new information. Understanding the psychology of a child, or a person, requires that we understand the cognitive structures he or she uses to understand his or her world.

Your view provides something of a counterpoint to the Freudian view of child development. While you both hold that the child psychology develops through a series of stages, you do not believe that the cognitive structures found in an adult would be found in a child. It follows then that even if children engage in behaviors that adults would understand in a certain way (say, sexually), it does not mean that the child understands those behaviors in the same way.¹ In fact, while you believe that psychoanalysis will not progress as a science until it unified its methodology to something more scientific (Freud never studied any actual children, for example), your main criticisms center around Freud's version of the genetic hypothesis. You share that criticism, of course, with Carl Jung.

¹ See Litowitz, B.E. (1999) for a full discussion.

9.2 *Game Objectives*

You are something of an independent on most of the issues that come before the APA. At this point in your career, you are an old man, considered to be one of the greats in the history of psychology. On the other hand, the first behaviorist revolution saw members of your generation as the enemy. You are sympathetic to those challenging behaviorism, including the cognitivists. But you're also deeply concerned about the scientific validity of psychoanalysis.

Your specific task in this game is to engage the new revolutionaries—Chomsky in particular—in a public discussion or debate of the concept of 'innateness' in psychology, and the acceptability of positing innate ideas in a scientific enterprise. You should propose the event to the conference committee in time for it to happen in 1975.

As you will remember, the problem of innate ideas strikes the very core of the idea of the scientific study of the mind: the empirical hypothesis unifies the tradition as a whole, with the exception of Junians. Moreover, the debate on homosexuality often turns, in the pub-

lic mind at the least, on whether sexuality is innate (an 'orientation') or not (a 'preference'). The kind of innateness you and Chomsky are discussing is probably not the same, as you both agree that the structure of thought that is innate, not the content. This should be made clear in your public discussion.

Chomsky posits that there is an innate system of grammars that are common to all humans, as a function of our biology. You believe there is a 'fixed nucleus' of cognition that is innate, but say that "the functioning of intelligence alone is hereditary." The actual debate is recorded in Piatelli-Palmarini's 1980 book, which you should review during the course of the game.

Specific Assignment

Initial Committee Membership None

Committee 9.1 (Piaget) None

Demedicalization

Indeterminate

Research

Propose a symposium for 1975 with Chomsky on the differences in the concept of innateness between your work, Chomsky's views, the behaviorists and the psychoanalytic tradition.

Association Business /DSM-III

Indeterminate

Social responsibilities of social scientists

Indeterminate

Assignment 9.1 (Piaget) Prepare a paper on the concept of innateness in Psychology, to present with Chomsky

Definition of 'mental illness' and fission of the APA

Indeterminate

9.3 *Must Read*

Piatelli-Palmarini, M. (Ed.) (1980). Language and Learning: The Debate between Jean Piaget and Noam Chomsky, London: Routledge & Kegan Paul . Reviewed at: <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=5843312>

Piaget, J. (1924). Judgment and reasoning in the child, London: Routledge & Kegan Paul, 1928. available at <http://www.archive.org/details/judgmentandreas0007972mbp>

- Piaget, J. (1936). *Origins of intelligence in the child*, London: Routledge & Kegan Paul, 1953.
- Piaget, J. (1957). *Construction of reality in the child*, London: Routledge & Kegan Paul, 1954.
- Piaget, J. (1941). *Child's conception of number* (with Alina Szeminska), London: Routledge & Kegan Paul, 1952.
- Piaget, J. (1945). *Play, dreams and imitation in childhood*, London: Heinemann, 1951.

Secondary Source

Litowitz, B.E. (1999). "Freud and Piaget: une fois de plus" *The Genetic Epistemologist* 27(4). Available at <http://www.piaget.org/GE/1999/GE-27-4.html#article1>

Sheehy, N. (2004). *Fifty Key Thinkers in Psychology*. New York: Routledge. Pages 188–193.

10 Leona Tyler, PhD

10.1 Your Biography

You are Leona Tyler, Psychologist.

You were born in Chetek, Wisconsin in 1906. When you were a child, your family moved to Mesabi Iron Range in Minnesota, where you would live until college.

You originally studied English literature as an undergraduate. You met the applied psychologist D.G. Paterson and started a PhD In Psychology at the University of Minnesota. In 1940, as ABD, you was appointed the head of the Personnel Research Bureau at the University of Oregon. After WWII, you established a veteran's counseling service funded by the VA at U Oregon. In 1951–52, you traveled to Maudsley Hospital¹ in England to work with the Psychiatrist Hans Eysenck. And in 1962–63, you held a Fulbright in Amsterdam.

In 1947, building on your experience at the University of Oregon, you published *The Psychology of Human Differences*. Still a classic of counseling, in it you suggest that the best way to understand individuals in counseling session is to see them as making choices between an infinite array of possible alternatives. You do not have a taste for theoretical bickering. As a counselor, you take a pragmatic approach to theoretical issues, but various commentators have noticed your similarity to theories of Piaget, Carl Rogers, Erik Erikson and others. Your practice blends psychoanalytic, behavioral and cognitive therapies.

The primary focus of your work is 'individuality,' not in a philosophical or moral sense, but in the sense that you reject the idea that an individual personality can be represented as a profile of scores in an n-dimensional space. On the contrary, you argue that an individual personality can be best described by the series of choices that that individual has made. It is possible, you hypothesize, to identify patterns in choice-making behavior. Your 'Choice Pattern Technique,' which asks people to choose and sort cards representing careers and leisure-time activities, is still widely used by psychological and career counselors today.

In recent years, however, you have come to theorize that in order to

¹ Many of the first-person stories on the 'treatments' of homosexuality that are collected at <http://treatmentshomosexuality.org.uk/> come from Maudsley.

make choices, an individual must be able to represent possible courses of actions or states of affairs that are not actual (i.e. possible but not currently real). At times, the internal representations discussed by these new ‘Cognitive Scientists’ like Chomsky and Miller, sound very similar to your hypothetical structures. But you’re not willing to give up the obvious successes of behavioral therapy.

To understand an individual, then, we must understand both that the individuals’ cognitive /representational abilities and their patterns of choosing between possibilities to make them actual.

10.2 Game Objectives

As an initial member of the Research committee, you’ll be called upon to judge the scientific legitimacy and ethical acceptability of proposed research programs. You should make yourself familiar with the sections of the game book titled ‘A Primer on Research Methods’ and ‘Ethics of Human Research’. Your gamemaster will give you an additional sheet outlining the responsibilities of members of the research committee in evaluating proposals.

Notice that the official documents of the APA, as included in the game book, are written in gender-specific language: I.B states “a nonmember of the APA may read a paper provided that he is sponsored...”. The implication here is, of course, that a female nonmember is not allowed to present. As this document is an official representation of the policies of the APA, it should be clarified to reflect the policies of the organization. You should make those proposals in 1973.

If you become president, it is almost certain that there will be a number of proposed proclamations on the table. You should insist on the following the ‘advocacy’ principle. If you can make it policy, so much the better:

As citizens, members of the APA have the right to advocate for any cause through the myriad of political advocacy organizations, but when psychologists and psychiatrists speak for the profession through APA public stances and proclamations, it should be from science and professional experience.

On occasion psychiatrists are asked for an opinion about an individual who is in the light of public attention or who has disclosed information about himself/herself through public media. In such circumstances, a psychiatrist may share with the public his or her expertise about psychiatric issues in general. However, it is unethical for a psychiatrist to offer a professional opinion unless he or she has conducted an examination and has been granted proper authorization for such a statement.

You can split these two paragraphs into two proposals, if you believe it will be easier to pass them. The second is a direct result of the

Goldwater affair² (see the gamebook 1.1 on page 14, and anticipates the problems associated with the APA's stand on abortion in 1970s:

In 1969, the American Psychological Association issued a public proclamation, citing lack of evidence to the contrary that:

WHEREAS in many state legislature, bills have recently been introduced for the purpose of repealing or drastically modifying the existing criminal codes with respect to the termination of unwanted pregnancies; and whereas, termination of unwanted pregnancies is clearly a mental health and child welfare issue, and a legitimate concern of APA; be it resolved, that termination of pregnancy be considered a civil right of the pregnant woman, to be handled as other medical and surgical procedures in consultation with her physician, and to be considered legal if performed by a licensed physician in a licensed medical facility. (Available at <http://www.apa.org/about/governance/council/policy/abortion.aspx>)

The American Psychiatric Association followed in 1977 with:

The emotional consequences of unwanted pregnancy on parents and their offspring may lead to long-standing life distress and disability, and the children of unwanted pregnancies are at high risk for abuse, neglect, mental illness, and deprivation of the quality of life. Pregnancy that results from undue coercion, rape, or incest creates even greater potential distress or disability in the child and the parents. The adolescent most vulnerable to early pregnancy is the product of adverse sociocultural conditions involving poverty, discrimination, and family disorganization, and statistics indicate that the resulting pregnancy is laden with medical complications which threaten the well-being of mother and fetus. The delivery that ensues from teenage pregnancy is prone to prematurity and major threats to the health of mother and child, and the resulting newborns have a higher percentage of birth defects, developmental difficulties, and a poorer life and health expectancy than the average for our society. Such children are often not released for adoption and thus get caught in the web of foster care and welfare systems, possibly entering lifetimes of dependency and costly social interventions. The tendency of this pattern to pass from generation to generation is very marked and thus serves to perpetuate a cycle of social and educational failure, mental and physical illness, and serious delinquency.

Because of these considerations, and in the interest of public welfare, the American Psychiatric Association

- 1) opposes all constitutional amendments, legislation, and regulations curtailing family planning and abortion services to any segment of the population; 2) reaffirms its position that abortion is a medical procedure in which physicians should respect the patient's right to freedom of choice - psychiatrists may be called on as consultants to the patient or physician in those cases in which the patient or physician requests such consultation to expand mutual appreciation of motivation and consequences; and 3) affirms that the freedom to act to interrupt pregnancy must be considered a mental health imperative with major social and

mental health implications. (Available at <http://www.psych.org/Departments/EDU/Library/APAOFFICIALDOCUMENTSANDRELATED/PositionStatements/197703.aspx>)

You'll recall that the US Supreme court decided that abortion was covered by the constitutional dictate to a 'right to privacy,' thereby blocking all laws that had kept abortion illegal.

You can mine the history of both of these issues for arguments in favor of your proposal. You should also look at Principle 5 of the APA Ethical Standards of Psychologists for support.

You should organize your efforts on these manners with the other women in the organization. As you'll notice from the brief history in the gamebook, the APA had women members since its second year of existence, and Mary Whiton Calkins was a president in its 12th year (1905). There has not, however, been a women in a leadership position since that time. You are a serious candidate to be the first woman president in over 50 years.

Specific Assignment

Initial Committee Membership

Member of the Research Committee, with term expiring in 1972.

Committee 10.1 (Tyler) Initial member of the Research Committee, with term expiring in 1972

Demedicalization

Indeterminate

Research

You should present a paper introducing your view of counseling and a 'hopeful' psychology (based on your actual 1973 presidential address) whether or not you are elected president. If elected president, this should be your presidential address. If not, you'll have to propose it as a conference paper to the Program committee.

Association Business /DSM-III

Run for President as early as possible. When President, propose and pass the principle quoted above—which becomes known as 'The Leona Tyler Principle.'

Assignment 10.1 (Tyler) present a paper introducing your view of counseling and a 'hopeful' psychology (probably 1973)

Social responsibilities of social scientists

Your proposed principle sparks a debate across the APA on the appropriate role of social scientists in social change. Chomsky and Ken Clark oppose your view. You will need allies.

Definition of 'mental illness' and fission of the APA

You are neutral on the issue of the definition of mental illness, so long as it is clearly not gendered in any way.

10.3 Must Read

Tyler, L.E. (1969). The Work of the Counselor, Prentice Hall

Tyler, L. E. (1973) "Design for a hopeful psychology" American Psychologist, 28(12) 1021–1029

Secondary Sources

Zilber, S. M. & Osipow, S. H. "Leona E. Tyler (1906-)" in Women in Psychology: a bio-bibliographic sourcebook, O'Connell, A. N. & Russo, N. F. (1990). Greenwood Publishing

"Leona Tyler Memorial Lecture Series", Department of Psychology, University of Oregon. Available <http://dynamic.uoregon.edu/~jjf/hyde2002/index.html>

"Profile: Leona Tyler", Feminist Voices, <http://www.feministvoices.com/leona-tyler/>

See (for summary of biography): <http://www.webster.edu/~woolflm/tyler.html>

11 Robert Spitzer, MD

11.1 Your Biography

You are Robert Spitzer, psychiatrist. You were recently profiled by Alix Spiegel, grandson of John P. Spiegel, for the New Yorker (issue 2005-01-03). It is available online at <http://metzelf.info/articles/Spitzer.html>

Allow me to quote excerpts of that article here:

"In the mid-nineteen-forties, Robert Spitzer, a mathematically minded boy of fifteen, began weekly sessions of Reichian psychotherapy. Wilhelm Reich was an Austrian psychoanalyst and a student of Sigmund Freud who, among other things, had marketed a device that he called the orgone accumulator — an iron appliance, the size of a telephone booth, that he claimed could both enhance sexual powers and cure cancer. Spitzer had asked his parents for permission to try Reichian analysis, but his parents had refused—they thought it was a sham—and so he decided to go to the sessions in secret. He paid five dollars a week to a therapist on the Lower East Side of Manhattan, a young man willing to talk frankly about the single most compelling issue Spitzer had yet encountered: women. Spitzer found this methodical approach to the enigma of attraction soothing and invigorating. The real draw of the therapy, however, was that greatly reduced Spitzer's anxieties about his troubled family life: his mother was a "professional patient" who cried continuously, and his father was cold and remote. Spitzer, unfortunately, had inherited his mother's unruly inner life and his father's repressed affect; though he often found himself overpowered by emotion, he was somehow unable to express his feelings. The sessions helped him, as he says, "become alive," and he always looked back on them with fondness. It was this experience that confirmed what would become your guiding principle: the best way to master the wilderness of emotion was through systematic study and analysis.

Robert Spitzer isn't widely known outside the field of mental health, but he is, without question, one of the most influential psychiatrists of the twentieth century. It was Spitzer who took the Diagnostic and Statistical Manual of Mental Disorders — the official listing of all mental diseases recognized by the American Psychiatric Association (APA) — and established it as a scientific instrument of enormous power. Because insurance companies now require a DSM diagnosis for reimbursement, the manual is mandatory for any mental-health professional seeking

compensation. It's also used by the court system to help determine insanity, by social-services agencies, schools, prisons, and government, and, occasionally, as a plot device on "The Sopranos". This magnitude of cultural authority, however, is a relatively recent phenomenon. Although the DSM was first published in 1952 and a second edition (DSM-II) came out in 1968, early versions of the document were largely ignored.... Spitzer first came to the university as a resident and student at the Columbia Center for Psychoanalytic Training and Research, after graduating from N.Y.U School of Medicine in 1957. He had a brilliant medical-school career, publishing in professional journals a series of well-received papers about childhood schizophrenia and reading disabilities. He also established himself by helping to discredit his erstwhile hero Reich. In addition to his weekly sessions on the Lower East Side, the teen-age Spitzer had persuaded another Reichian doctor to give him free access to an orgone accumulator, and he spent many hours sitting hopefully on the booth's tiny stool, absorbing healing orgone energy, to no obvious avail. In time, he became disillusioned, and in college he wrote a paper critical of the therapy, which was consulted by the Food and Drug Administration when they later prosecuted Reich for fraud.

At Columbia psychoanalytic, however, Spitzer's career faltered. Psychoanalysis was too abstract, too theoretical, and somehow his patients rarely seemed to improve. "I was always unsure that I was being helpful, and I was uncomfortable listening and empathizing—I just didn't know what the hell to do." Spitzer managed to graduate, and secured a position as an instructor in the psychiatry department (he has held some version of the job ever since), but he is a man of tremendous drive and ambition—also a devoted contrarian—and he found teaching intellectually limiting. For satisfaction, he turned to research. He worked on depression and on diagnostic interview techniques, but neither line of inquiry produced the radical innovation or epic discovery that he would need to make his name.

As you struggled to find your professional footing in the nineteen-sixties, the still young field of psychiatry was also in crisis. The central issue involved the problem of diagnosis: psychiatrists couldn't seem to agree on who was sick and what ailed them. A patient identified as a textbook hysteric by one psychiatrist might easily be classified as a hypochondriac depressive by another. Blame for this discrepancy was assigned to the DSM. Critics claimed that the manual lacked what in the world of science is known as "reliability"—the ability to produce a consistent, replicable result—and therefore also lacked scientific validity. In order for any diagnostic instrument to be considered useful, it must have both.

Spitzer had no particular interest in psychiatric diagnosis, but in 1966 you happened to share a lunch table in the Columbia cafeteria with the chairman of the DSM-II task force."

According to Speigel, you struck up a conversation, got along well, and by the end of the meal you had been offered the job of note-taker on the nomenclature committee. You were soon promoted to the

chairmanship, which you hold when the game begins.

11.2 *Game Objectives*

Your main concern is the perceived lack of legitimacy of psychiatry and psychology in the scientific community at the end of the 1960's. Thomas Szasz's critiques of mental illness struck a chord in you. You worry that the current classification system—especially the concept of 'neurosis'—is unreliable in the technical sense discussed in the 'Research methods' section of the gamebook. You worry that the public perceives psychiatry as convenient politically, particularly insofar as its history is so closely tied to military needs. And most importantly, you believe that the classification of disease in terms of hypothetical causes that have no basis in biology makes psychiatry the laughing stock of contemporary medicine.

Declassification: 1971–1973

At the beginning of the game, you believe (at least you report that you believe) that homosexuality is a disorder.

Your role in this process is extraordinarily complicated, and the historical materials available contradictory and potentially disingenuous. That means that you, as the student, will have to make some decisions about Spitzer's real motivations. Here's the story as it is usually told:

In 1972, you 'just happen' to attend a session on behavioral therapy for homosexuality. There, you are confronted by Ron Gold, a journalist and gay activist, on why you believe homosexuality is a disorder. He challenges you to cite reliable evidence, but you can't (you think Socarides and Bieber are Freudian ideologues). You agree to set up a meeting with the nomenclature committee and a symposium in 1973 (in the game, Kameny & Gittings will arrange it if they are characters). Gold then invites you and other members of the nomenclature committee to a secret meeting of the Gay-PA to happen at the Honolulu conference in 1973. You agree to go. While many of the psychiatrists at the meeting were distinctly uncomfortable with your presence, you witness an event that you report changed your life. The NPR program "This American Life" produced a wonderful episode titled '81 words' that covers the story. I'll quote the crucial scene here. Alix Spiegel, the reporter, is the grandson of J. Spiegel.

Ronald Gold: I got invited to it but I was told you know keep it all very quiet and don't say anything and just come to this bar and we'll all be there. So I decided to invite Spitzer to come to this because he had told me essentially that he didn't know any gay psychiatrists and wasn't quite sure there were any. And I said, you just come along.

Alix Spiegel: Ron warned Spitzer not to say anything, he was instructed not to speak, or stare, or indicate in any way that he was anything other than a closeted gay man.

Ronald Gold: But once he got there and saw that the head of the Transaction Analysis Association and the guy who handed out all the training money in the United States, and the heads of various prestigious psychiatry departments at various universities were all there, he couldn't believe it. And he started asking all these dimwitted questions...

Alix Spiegel: Such as?

Ronald Gold: Oh I can't remember, but questions that no gay person would ask.

Alix Spiegel: At the time members of the GayPA were still completely hidden. They hadn't been active in the struggle to change the DSM; they were too fearful of losing their jobs to identify themselves publicly. So when Robert Spitzer, an obviously straight man in a position of power at the APA, appeared at the bar the men of the GayPA were completely unnerved.

Ronald Gold: So the grand dragon of the GayPA, whoever he was I can't remember now, came up to me and said, 'Get rid of him, get him out of here! You've got to get rid of him.' And I said I'm doing nothing of a kind, he's here to help us and you are not doing anything.

Alix Spiegel: And that's when it happened. There in front of Robert Spitzer and the grand dragon of the GayPA. There in the midst of neon coloured drinks and grass skirted waitresses a young man in full army uniform walked into the bar. He looked at Robert Spitzer, he looked at Ronald Gold, he looked at the grand dragon of the GayPA. And then the young man in uniform burst into tears. He threw himself into Ron's arms and remained there, sobbing.

Ronald Gold: Well I had no idea who he was. It turned out he was a psychiatrist, an army psychiatrist based in Hawaii who was so moved by my speech, he told me, that he decided he had to go to a gay bar for the first time in his life. And somehow or other he got directed to this particular bar and saw me and all the gay psychiatrists and it was too much for him, he just cracked up. And it was a very moving event, I mean this man was awash in tears. And I believe that that was what decided Spitzer, right then and there, let's go. Because it was right after that he said, 'Let's go write the resolution.' And so we went back to Spitzer's hotel room and wrote the resolution.

This is an incredible story. And it may be true. But there are some problems with the standard tale.

When questioned why you would meet the activists in 1972, you quipped "I could think of no reason not to." But here is what is wrong with this standard narrative: you (as Spitzer) were already chair of the nomenclature committee when you attended Socarides' session on behavioral therapy. Everyone knew who you were, and what you had been tasked with. Everyone knew that the APA was going to make a

major decision in 1973 on homosexuality, and that that decision was the responsibility of the nomenclature committee. At the same time, you knew, given the protests in 1970 and 1971, that this panel was probably going to be shut down by protesters. With the distance of history, we now know that the protesters had maps of the conference hotel with their plans to disrupt this session laid out in detail. Some of these maps may well have made their way into the hands of the APA administration – i.e. you. So why were you there?

Spitzer reports not changing his mind about homosexuality until the events at the Tiki bar – but the proposal was put forward by Spitzer and passed at the same conference that the Tiki bar event took place. Despite what Gold and you say, it seems that there is not enough time to orchestrate such an important move with the careful, deliberate method you managed in the handful of days at a conference.

Third, this standard story leaves out the contributions of Judd Marmor and John Spiegel, both of whom worked hard to draft the proposal, and push it through the executive board in 1973.

We leave it up to you (the student) to determine if Spitzer really did change his mind in 1973, or if he knew what he was doing all along. What you have to accomplish between 1971 and 1973 is:

Work with Judd Marmor and John Spiegel to draft a proposal to remove homosexuality from the list of mental disorders as they appear in the DSM-II. Balance the psychoanalysts, who may worry about their position of power in the psychiatric community, with the demands of the gay activists and the evidence produced by Hooker and Marmor that homosexuality is not per se damaging to the mental health of the individuals. The original wording of Spitzer's proposal (which you should not copy, but use as a model) is available – see the game master for the PDF. It is APA Position Statement 197310.

You wish to retain, however, a diagnosis for those who believe that their homosexuality is damaging to their mental health, and who seek out help for homosexuality. This new category, which you wish to call 'Sexual Orientation Disturbance,' is meant to provide a middle ground position between Marmor and Socarides, as it would allow treatment for individuals who found their homosexual orientation disturbing, thus producing subjective distress. At the same time, it said nothing about those homosexuals who were comfortable with their orientation.

After the vote in 1973, petition the board for the dissolution of the nomenclature committee, which will be replaced by a task force to rewrite the DSM. This task force should be entirely under your control, from the appointing of members to the criteria of completion.

Task Force: 1973–1975

The first thing you must do is propose how the new DSM will be written. You want the new DSM to be reliable across psychiatrists. Currently, the same behaviors could be classified as different diseases depending on the psychiatrists' theoretical commitments to the origin of those behaviors. You want to change the taxonomy so that psychological disorders are classified according to "the criteria that have been shown by research study to have some validity in terms of variables such as course, response to specific therapy, familial pattern, etc." (1979) thereby unifying diagnosis across theoretical traditions.

Proposed Study

Propose to the research committee a meta-study of existing research on the reliability of psychiatric diagnosis according to Cohen's Kappa. There are five existing studies available to survey:

- Schmidt, H. O. & Fonda, C.P. (1956) "The reliability of psychiatric diagnosis: a new look" *J abnor. Soc., Psychol.*, 52, 262–7 - 426 patients admitted to a state hospital in CT.
- Kreitman, N. (1961) "The Reliability of Psychiatric Diagnosis" *J ment. Sci.*, 107, 876–86 – 90 consecutive new referrals to an outpatient clinic in England
- Beck, A.T., Ward, C.H. Mendleson, H., Mock, J.E. & Ebaugh , J.K. (1962) "Reliability of psychiatric diagnosis: 2. A study of consistency of clinical judgments and ratings." *Amer. J. Psychiat.* 119, 351–7 - 153 patients randomly selected from new referrals to outpatient services in Philadelphia
- Sandifer, M.G. Hordern, A. Timbury, G.C. & Green, L. M. (1964) "Psychiatric diagnosis: A comparative study in North Carolina, London and Glasgow" *Brit. J. Psychiat.* 114, 1–9 – 91 patients at three hospitals in NC
- The US-UK Diagnostic Project [Cooper, J. E., Kendell, R. E., Gurland, B. J., Sharpe, L., Copeland, J.R.M., & Simon, R. (1972) *Psychiatric Diagnosis in New York and London*, London: Oxford University Press – multiple studies

The details of this meta-study are in Spitzer & Fleiss (1974). Your instructor will specify whether you ought to perform these calculations yourself, and report your findings, or whether you can report the findings of the actual Spitzer and Fleiss, depending on the level of the class and your familiarity with statistics.

Defining 'Mental Illness'

During the process of drafting the definition of 'Sexual Orientation Disturbance', it became clear to you that the lack of a clear definition of 'mental illness' or its corollary 'mental health' was hindering the discussion.

You have two objectives during this period. Your task force has to propose a new definition of mental illness that will be included in the DSM-III. Your group will not actually write the DSM-III for this game (in reality, it took until 1980), but you are to pass two major parts of that process: first, that the classification be based on symptoms and not putative causes; and second, that 'mental disorder' is a subset of 'medical disorder' and should be investigated and treated according to the medical model. These two features make up what the core of what we now call 'descriptive psychiatry.' Prior to this period, a single patient could be diagnosed with different conditions, depending on the theoretical bent of the psychiatrist treating that patient. The unreliability of that classification scheme made many in the medical community—as well as psychiatrists like Thomas Szasz—question the legitimacy of the entire discipline. By unifying and regularizing the diagnostic criteria for psychiatric diagnosis, you can provide a firm basis for justifying psychiatry's role in medicine.

The first of these two tasks entails that you replace the current classification in terms of 'neurosis' and 'psychosis' with evidence-based classifications. Your approach is based on what was called the 'St Louis' approach after psychiatrists at Washington University in St Louis' Barnes Hospital developed it in the 1960s. The approach is summarized in Feighner et al. (1972), which you should present to the APA in 1972.

In Spitzer's own words:

Whereas in the standard system the clinician determines to which of the various diagnostic stereotypes his patient is closest, in the St. Louis system the clinician determines whether his patient satisfies explicit criteria. For example, for a diagnosis of the depressive form of primary affective disorder the three requirements are dysphoric mood, a psychiatric illness lasting at least one month with no other pre-existing psychiatric condition, and at least five of the following eight symptoms: poor appetite or weight loss; sleep difficulty; loss of energy; agitation or retardation; loss of interest in usual activities or decrease in sexual drive; feelings of self-reproach or guilt; complaints or actual diminished ability to think or concentrate; and thoughts of death or suicide." (1974, p. 345–6)

The second of these entails that the classifications focus on the treatments of conditions, rather than the causes of the conditions—thus, if two conditions are treated the same, they likely are the same. Ac-

cording to the St. Louis approach, it doesn't matter if the depressive form of primary affective disorder originates in childhood or recent trauma, the diagnosis—and hence the treatment—would be the same.

Allow me to take a moment to point out your conflict with other psychiatrists: Freud repeatedly asserted that the psychoanalysts was not interested in the outward manifestation of psychosis or neurosis, (e.g. p. 318 of Introductory Lectures), but rather in their origin. For Freudian psychiatry, a symptom was only a clue to how the individual mind in question had hidden away the true cause. It was the goal of psychiatry not to describe and classify symptoms, but to understand from where they originated.

In course of this reclassification, it becomes clear to you that constructing a taxonomy of mental disorders without a clear criteria for which conditions should appear in the nomenclature is not a viable strategy (see Sptizer, 1978, p. 15–16). As a part of the redrafting of the DSM-III, you need to convince the APA to create a criteria for identifying mental disorders.

Your strategy is to define 'mental disorder' as a subset of 'medical disorder'. The concept of a 'medical disorder' entails (a) negative consequences of the condition, (b) an inferred or identified orgasmic dysfunction and (c) an implicit call to action (*ibid*, p. 17). You intentionally use the term 'disorder' instead of 'disease' or 'illness,' as the former does not imply a progressive pathophysiological condition. Classifying medical disorders is an exercise in identifying conditions of orgasmic dysfunction that, because of the negative consequences of that condition contain an implicit call to action. Implicit in the call to action is "the assumption that something has gone wrong with the human organism." (*italics his*, *ibid* p. 18).

You propose the following definition of mental disorder:

A Medical disorder is a relatively distinct condition resulting from an organismic dysfunction which in its fully developed or extreme form is directly and intrinsically associated with distress, disability, or certain other types of disadvantage. The disadvantage may be of a physical, perceptual, sexual, or interpersonal nature. Implicitly there is a call for action on the part of the person who has the condition, the medical or its allied professions, and society. A mental disorder is a medical disorder whose manifestations are primarily signs or symptoms of a psychological (behavioral) nature, or if physical, can be understood only using psychological concepts. (1978, p. 18)

You should arrange an open session in 1974 to present your proposed definition of mental disorder prior to presenting it to the executive committee for vote in 1975.

Both of your tasks in this time period will put you at odds with psychoanalysts – including those who have been your allies on the

removal of homosexuality. While you are welcome to create your own arguments for both of these claims, the strongest argument you probably have is that the DSM-III should be theoretically neutral.

While you championed the removal of 'homosexuality' from the list of mental disorders, you are more concerned with the major changes you are attempting in the DSM-III. Since homosexuality is such a flash-point in these debates, you believe it advisable to include a condition for homosexuals who are dissatisfied with their orientation. You would like to propose 'homodysphilia.' Members of the taskforce, which you selected, may object to this classification. They will be hard to disagree with— they are, after all, experts in human sexuality who you chose precisely because they had expertise you lacked. But you truly believe that you will not get your changes to pass without a compromise here.

You are amenable to other names: 'ego-dystonic homosexuality' may be more to their liking – and it's a political compromise anyway, so the name doesn't really matter that much.

Summary

Your main task is to purge the DSM of taxonomies based in theory in favor of 'evidence-based' taxonomies. In your words, you want to remove all diagnoses based on theoretical inter-psychic conflicts, and replace them with diagnoses based on behavior. For example, 'neurotic depression' is distinguished from 'depression' simply in terms of the notion of the Freudian concept of 'neurosis'. At the same time, the psychopharmacological treatment for 'anxiety' and 'depression' are identical. What use is there in taxonomically distinguishing between two conditions for which the treatment is identical—especially if the causes of these conditions are entirely theoretical.

Specific Assignments:

Initial Committee Membership Nomenclature committee chair.

Demedicalization

In 1973, work with Ron Gold to draft a proposal to remove homosexuality immediately. The argument here is the one alluded to above: the listing of 'homosexuality' in the official nomenclature does more harm than good, and that is unconscionable for a medical doctor.

Committee 11.1 (Spitzer) Initial chair of the Nomenclature committee, with term expiring 1976.

Research

Propose a meta-study on the reliability of psychiatric diagnosis in '73, as discussed in the narrative above.

Association Business /DSM-III

Also in 1973, through the Nomenclature committee, propose a new DSM that will be based on descriptions of symptoms, not etiology of the condition.

Also in '73, propose that the nomenclature committee be disbanded, and the task of producing a new DSM be given to a taskforce under your direction.

Social responsibilities of social scientists

Indeterminate

Assignment 11.1 (Spitzer) Present a paper on the Feighner Criteria to the APA in 1972, distinguishing it from the approach of the DSM-II.

Definition of 'mental illness' and fission of the APA

Hold an open hearing in '74 on the definition of mental illness. The narrative above suggests a course of compromises you may propose.

Fission: Stick with the APA.

11.3 Must Read

Spitzer, R. L. and Endicott, J. "Medical and Mental Disorder: Proposed Definition and Criteria" in Critical Issues in Psychiatric Diagnosis, Spitzer and Klein, e.d. See also Klein, D. "A Proposed Definition of Mental Illness", in the same volume.

Spitzer. Research diagnostic criteria (RDC). Biometrics research (1975) pp. 34 (available at <http://www.garfield.library.upenn.edu/classics1989/A1989U309700001.pdf>)

Spitzer, R. and Fleiss, J. (1974). "A Re-analysis of the Reliability of Psychiatric Diagnosis" Brit. J. Psychiat. 125, 341-7

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1953-Spitzer-OrgoneEnergy

Matarazzo, J. D. (1989). "The Reliability of Psychiatric and Psychological Diagnosis", in Hooley, J. M., Neale, J. M. and Davison, D. C. Readings in Abnormal Psychology, Wiley

12 Thomas S. Szasz, MD

12.1 Your Biography

You are Thomas S. Szasz, MD, Professor of Psychiatry at State University of New York at Syracuse.

In 1960, you published *The Myth of Mental Illness* (T. Szasz, 1960), which defends your view that “there is no such thing as ‘mental illness’” (p 1). To you, psychiatry and psychology are the study of human behavior. Scientists who practice these fields engage in the most common of all human behaviors: they talk to people. Their regular use of terminology like ‘patient,’ ‘diagnosis’, and ‘treatment’ obscures this fact and makes us think psychiatrists are doing something other than simply communicating. Worse yet, the use of nouns like ‘libido’ and ‘psychic energy,’ implies objects that can be studied, and hence, when we use them, we think we’re talking about some actual thing rather than just a mere theoretical construct. All of this medicalizes normal human behavior, and makes normal human communication a ‘treatment.’¹

Your views have not, shall we say, been received with open arms. In 1961, The Commissioner of the New York State Department of Mental Hygiene publicly demanded that you be fired from your tenured position, on the grounds that your views—as articulated in *The Myth of Mental Illness*—were inconsistent with your position as Professor of Psychiatry. These events added to your notoriety, making you widely known, but often misrepresented.

You are often accused of ‘not believing in mental illness.’ That isn’t quite right. The phrase ‘mental illness’ is, after all, a noun phrase. That means it denotes an entity or a state of being. You do not deny that there are people who behave in ways that are destructive to themselves and others; nor do you deny that talking to another person—especially one trained in communication—can be very helpful indeed. But you do deny that there is any thing called ‘mental illness.’ That is, you deny that the phrase ‘mental illness’ refers to an entity or a state of being. If it has any meaning at all, it refers to a set of actions or behaviors.

¹ The careful reader will notice that your critiques here parallel the ‘idols’ outlined by Francis Bacon in his classic *Novum Organon*. See the discussion of Bacon in the ‘History of the Definition of Mental Illness’ in the gamebook.

The Philosopher of Science Karl Popper heavily influences your reasoning for this position. Popper famously held that for an area of inquiry to be scientific, it had to make bold, surprising conjectures that were, in principle, falsifiable. This was the criterion of demarcation between scientific inquiry and ‘pseudoscientific’ inquiry: if a theory was able to explain away any possible phenomenon that might threaten that theory, that theory was thereby pseudoscientific, rather than scientific. To be scientific, a theory must make claims that might be wrong. The more explicit a theory is in specifying the ways in which it might be wrong, the more that theory is scientific. One of Popper’s famous and controversial examples was Freudian psychoanalysis.² According to Popper, Freudianism had developed to such a point that any evidence presented against the theory would be incorporated into the theory by Freudians as evidence for ‘repression’ or ‘sublimation.’ Famously, he pointed out, Freud was never, himself, psychoanalyzed. When asked why, he would retort that he ‘did it himself,’ but that response was frequently rejected as illegitimate when produced by his patients.

But Popper went a step further. He also questioned the doctrine of ‘historicism’ that he saw underlying much of social and psychological “science” of the early 20th century (Popper, 1957). Popper believed that the founders of the ‘human sciences’ had become enamored with the progress made by the ‘natural sciences’ in the 18th and 19th centuries. This progress rested largely on the belief that for any given event in the physical world, one could fully explain that event by specifying the physical conditions of the world prior to that event. In short, that all physical events were physically determined by pre-existing states of affairs. Early psychologists and sociologists adopted this belief wholesale, and inappropriately assumed that in order to explain the actions of a person or a society, one only need to look at the pre-existing conditions, and wait for the laws of nature to take their course. The most obvious example of this reasoning is the work of Karl Marx, who held that socialist revolution was the inevitable arc of human development.

The same kind of reasoning exists in Freudian and Jungian psychology. Each of them believes, largely as a hypothesis not a defended conjecture, that a true explanation for a person’s behavior is one that specifies the relevant events in that person’s childhood. This belief can be found in the earliest history of psychiatry and psychology (see the “Psychoanalysis” section of the gamebook).

You reject all of this. To you, the human being cannot be explained in these historicist or deterministic ways. Communication between people is not determined by psychosocial antecedents. It is free and voluntary.³

² Actually, this is historically inaccurate. Popper did, in fact, use Freud and Adler, along with Marx, as his primary examples of pseudoscientific research in *Conjectures and Refutations* (1962), which was published after Szasz’ *The Myth of Mental Illness*. Popper’s work before 1960 includes his *The Logic of Scientific Discovery* (1959), which lays out the theory of falsifiability as demarcation criterion, but does not illustrate it with Freudianism. In the same way, his 1945 *The Open Society and Its Enemies*—which Szasz cites as influential—contains a few off-hand comparisons between Freud and Marx, but does not articulate the connection in a systematic way.

³ The historian of ideas may notice that this view is Kantian in nature: human language, which is the essential, identifying ability of humanity, is itself uncaused and spontaneous.

Thus, to you, psychiatry should be based on the analysis of what you call 'sign-behavior': the manipulation and interpretation of symbols for the sake of communication by humans. Psychiatry constructed in this way, you argue, would less resemble medicine than it would other traditional disciplines focused on the understanding of symbols and their manipulation: philosophy, linguistics, semiotics, etc. On the other hand, the brain is best understood using the terminology of biology and chemistry, and the new and improving field of neurology and neuroscience. Psychiatry as practiced today is trapped by its own nomenclature, which descends from the unfortunate identification with medicine and the idealization of historicist explanations.

Consider, for example, the following passage in the Myth of Mental Illness:

There is, as I noted before, a serious discrepancy between what psychotherapists and psychoanalysts do and what they say they do. What they do, quite simply, is to communicate with other persons (often called "patients") by means of language, m nonverbal signs and rules; they analyze—that is, discuss, explain and speculate about—the communicative interactions which they observe and in which they themselves engage; and they often recommend engaging in the same types of conduct and avoiding others. I believe that these phrases correctly describe the actual operations of psychoanalysts and psychosocially orientated psychiatrists. But what do these experts tell themselves and others concerning their work? They talk as if they were physicians, physiologists, biologists or even physicists. We hear about "sick patients" and "treatments," "diagnoses" and "hospitals," "instincts" and "endocrine functions," and, of course, "libido" and "psychic energies," both "free" and "bound." All this is fakery and pretense whose purpose is to "medicalize" certain aspects of the study and control of human behavior. (p 4-5)

Another common theme in your work is the comparison between advocates of psychiatry and religious zealots. In the Myth of Mental Illness, you claimed:

While Freud criticized revealed religion for the patent infantilism that it is, he ignored the social characteristics of closed societies and the psychological characteristics of their loyal supporters. He thus failed to see the religious character of the movement he himself was creating. It is in this way that the paradox that is psychoanalysis—a system composed of a historicist theory and an antihistoricist therapy—come into being. (p 7)

In this case, Freud himself is at fault for failing to anticipate the fervor with which his followers would pursue his theory. It is the psychoanalysts of today who have turned psychiatry into an ideology.

Your most recent book, *The Manufacture of Madness: A Comparative Study of the Inquisition and the Mental Health Movement*, argues

that society constantly worries about the unknown and threatening, whether those come from outside or inside the particular society. Throughout the ages, charlatans have offered society comfort and security in the form of witchcraft and religion. By classifying and controlling a perceived threat from the ‘mentally ill’, psychiatry has taken over this role as ‘protector’. And hence, is not significantly different than those who prosecuted the Spanish inquisition (T. S. Szasz, 1970).

12.2 *Victory Objectives*

Take your role as gadfly seriously. Question everyone and everything. Object strongly to speakers to assert, without evidence, explanations that appeal to non-existent entities, or that classify actions (behaviors) as states of being. The re-writing of the DSM is an important moment in the history of psychology. While you agree with many of the critiques of the DSM-II, you worry that those leading the charge for a new DSM have ulterior motives. The economics of medicine is increasingly dependent upon both medical insurance (a new entity in the American economy) and pharmaceuticals. Both of these entities are highly regulated; and both insist on careful categorization and ‘scientific reliability’ before paying for treatments. You suspect that some of the individuals (including Robert Spitzer) involved in the rewriting of the DSM are motivated not by a dissatisfaction with the scientific validity of existing categories like you, but rather to create a diagnostic manual that will meet the requirements of the insurance and pharmaceutical companies. A DSM that results from these pressures, and not intellectual virtues, will reflect more the demands of economic policy than concern for patients well-being.

At the same time, you want to promote your theory of psychiatry as analysis of sign-behavior as a relevant alternative to psychoanalysis. To that end, you strongly support anything that characterizes psychology as talk-therapy, but reject any attempt to replace talk therapy with psychoactive drugs.

When, and if, the game reaches a point of attempting to define mental illness, you need to propose, and work to pass, an official statement from the APA that states:

There is no ‘thing’ called ‘mental illness,’ only sets of behaviors that may be destructive to an individual and his or her society.

Game Strategy

Your notoriety is a double-edged sword. Yes, people listen when you talk. But most people at the APA publicly disagree with everything you say. That does not mean that they don’t privately agree.

You are, in many respects, like the Socratic gadfly. You question the hidden assumptions upon which the entire industry of psychiatry and psychology is built. So while some may privately agree with your arguments, they suspect that your position would undermine their livelihoods, and hence will do nothing to support you in public.

It is important then not to make grand public pronouncements that will alienate your colleagues. The fact is that you believe that psychiatry, correctly constructed, does have an important role to play in contemporary society. You are thrilled that the APA has decided to drop the DSM II. But you are deeply concerned about what will replace it. You need to find ways to work with your colleagues to ensure that the new version of the DSM avoids hollow, meaningless terminology 'libido', avoids pseudoscientific (i.e. not falsifiable) claims, and remains cognizant of the dangers of medicalizing normality.

12.3 Specific Assignments

Initial Committee Membership No committee membership at the beginning

Committee 12.1 (Szasz) No initial memberships, but is eligible to run for any.

Demedicalization

Officially neutral, but since you're against the medicalization of *all* psychological conditions, you are like in support.

Research

Propose either a paper in which you critique the medical model used by psychiatry, or collaborate with G. Albee on a symposium on the medical model. This would be best presented in 1972, before the DSM-III is in the works.

Association Business /DSM-III

No specific views on the individual issues related to the DSM-III, but your views that Mental Illness is a myth means your essentially opposed to the whole project.

Assignment 12.1 (Szasz) Present a version of your argument in *Myth of Mental Illness* in 1971. This is already on the schedule, so you should get working now. Also, hold a symposium with Albee in 1972.

Social responsibilities of social scientists

Oppose the proposal to create a special committee on the psychology of women and the committee on women in psychology, NOT because you are sexist, but for three reasons (1) it isn't clearly distinguished from other areas of psychology, such as 'social psychology', (2) the name itself is separatist and exclusionary and (3) the organization

seems to be a pressure group affiliated with feminist political causes.⁴ (the last of these can be tied to the Leona Tyler principle).

Definition of 'mental illness' and fission of the APA

Warning: Your arguments against psychiatry are almost entirely against psychoanalysts. You argue that 'mental illness' cannot be a disease because it has no basis in physiology. But the growing success of psychopharmacology threatens to derail your argument. In short: you hold that if it is a disease, it must have a physiological explanation. But here's where you might have a problem: if neuroscience and/or psychopharmacology were capable of providing a coherent explanation of schizophrenia, for example, would you allow schizophrenia as a genuine mental illness? Or would still hold that 'mental illness' is only a metaphor for human behavior?

⁴ There is no evidence that the real Szasz actually put forward any arguments like these, or that he is against the women's movement. Quite the contrary: he has long been a supporter of the empowerment of women. But it is consistent with his outspoken libertarianism and his views on science to avoid the rigidification of terms (such as 'woman') when they are put into policy. Thus, you must NOT articulate an argument against women's empowerment, but rather about the ways in which codifying a classification in the official language tends to exclude and reify the identity of a group of people, which then excludes others and leads to self-limitations.

12.4 Must Read

- Popper, K. R. (1957). *The Poverty of Historicism*. Boston: Beacon Press
- Popper, K. R. (1959). *The Logic of Scientific Discovery*. New York: Basic Books
- Szasz, T. (1960). "The Myth of Mental Illness" *American Psychologist*, 15, p. 113–118 available at <http://psychclassics.yorku.ca/Szasz/myth.htm>
- Szasz, R. (1974). *The Myth of Mental Illness: Foundations of a Theory of Personal Conduct* New York: Harper & Row.
- Szasz, T. (1970). *The Manufacture of Madness: a comparative study of the Inquisition and the mental health movement* New York: Harper & Row (See esp. the chapter titled "The Modern Psychiatric Scapegoat - The Homosexual")

Secondary Sources

Oliver, J. "The Myth of thomas Szasz" *The New Atlantis*, available at <http://www.thenewatlantis.com/publications/the-myth-of-thomas-szasz>

See 315 of 'Discovering the History of Psychiatry' (in Google Books).

13 Paul Gebhard, PhD

13.1 Your Biography

You were born July 3, 1917 in Rocky Ford, Colorado and obtained your B.S. from Harvard University in 1940, your Ph.D from Harvard University in 1947. You have worked in the Department of Anthropology at Indiana University from 1947 until the present, serving as the Director at the Institute for Sex Research starting 1956, after the death of your mentor, Alfred C. Kinsey.

You are an Anthropologist, not a psychologist. Anthropology has a varied and checkered history, especially in relation to psychology and sociology. All three of these fields purport to study the human mind and human organizations, but they have gone about it in very different ways. Pay close attention to the discussion of Margaret Mead in 4.3 on page 152. It is probably worth reading the Introduction to *Coming of Age in American Samoa* to understand the call for Anthropological research. One ahistorical note: Mead's study was essentially debunked in the mid-1980s. It is now taught as an example of confirmation bias. You will have to be *very* cautious when studying to ensure that you can present Mead's work as it would have been in the 1970's—a foundational text in the discipline and a paradigm of good science, *not* as it is taught today.

The president of the APA in 1957, Lee J. Cronbach, titled his presidential address 'The Two Disciplines of Scientific Psychology.' Compare what Cronbach says about 'correlational' psychology to the method used by Kinsey.

13.2 Game Objectives

Get on the Spitzer task force. You're an independent on all other issues that may come before the task force or the membership. It is important that you use your judgment on what an Anthropologist and sexologist would have thought of the various other proposals that come forward.

Specific Assignment

Initial Committee Membership

You are an initial member of the Program committee, with your term expiring in 1974.

Committee 13.1 (Gebhard) You are an initial member of the Program committee, with your term expiring in 1974.

Demedicalization

Technically indeterminate, but your respect for Hooker's data entails that you are decidedly pro-demedicalization.

Research

Give a formal presentation of the findings of the Kinsey report in 1972, highlighting homosexuality in both male and female. I. Bieber's 1962 book Homosexuality: A Psychoanalytic Study is often seen as a response to the Kinsey report, so be prepared for significant questions from Socarides and Bieber.

Association Business /DSM-III

Submit a proposal to have the APA formally recognize Evelyn Hooker for her Distinguished Contribution to Psychology in the Public Interest.

If Spitzer gets a Taskforce for the DSMIII, get appointed to it as a voice of Anthropology.

Assignment 13.1 (Gebhard) presentation of the findings of the Kinsey report in 1972, highlighting homosexuality in both male and female.

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

You are neutral on the definition of mental illness, although you are sympathetic to those views that see mental illness as dysfunction of culture, not of the individual.

You are encouraged to add to the liminality of the game by decorating the room in themes corresponding to the different locations: 71: Washington DC, 72: Dallas, 73: Honolulu, 74: Philadelphia, 75: Chicago.

13.3 Must Read

Mead 1928

Kinsey Reports: Kinsey, Alfred C. et al. (1948/1998). Sexual Behavior in the Human Male. Philadelphia: W.B. Saunders; Bloomington,

IN: Indiana U. Press. Currently out of print, but on google books.
Kinsey, Alfred C. et al. (1953/1998). Sexual Behavior in the Human Female. Philadelphia: W.B. Saunders; Bloomington, IN: Indiana U. Press. Preview available on google books. Gebhard, Paul H. and Johnson, Alan B. (1979/1998). The Kinsey Data: Marginal Tabulations of 1938–1963 Interviews Conducted by the Institute for Sex Research. Philadelphia: W.B. Saunders; Bloomington, IN: Indiana U. Press. Preview available on google books. Cronbach, L. J. (1956) “The Two Disciplines of Scientific Psychology” American Psychologist, 12: 671–684. Available at <http://psychclassics.yorku.ca/Cronbach/Disciplines/>

Secondary Sources

‘Paul Gebhard Interview’ by NPR ‘New River Media’ available at <http://www.pbs.org/fmc/interviews/gebhard.htm>

13.4 Psychoanalyst Overview

The central issue in this game—whether it be voiced in the selection of experiments to be run via the grants committee or in the classification of mental illness in the nomenclature committee—is the the nature of the scientific investigation of the human mind. For the psychoanalysts, as opposed to the behaviorists, the science of the mind is not about predicting and controlling behavior. It is about discovering the true things about our minds. Thus, a treatment or theory is judged as ‘good’ or ‘working’ not if it changes the behavior of a person, but whether or not that person gains insight into their own mind.

When practicing a technique like free association or transference, a psychoanalyst does not seek to discover what a given symbol means to everyone, as a matter of a law-like generalization. Rather, a psychoanalyst seeks to discover what a given symbol means to the person being analyzed. It follows that a given discovery may not generalize over individuals. But that does not mean that that discovery is wrong or false. It stands to reason, then, that the truths of psychoanalysis are fundamentally individualistic, and as a result, one does not have the ground to criticize psychoanalysis until one has experienced psychoanalysis first hand.

The central task for this game will be to create a coherent notion of ‘mental illness’ or ‘mental disorder’ — homosexuality is only the tip of the iceberg. When the game reaches that point, all psychoanalysts must work together to preserve a psychoanalytic understanding of mental order and mental disorder in terms of the dynamic hypothesis (see the game book for a definition). The proposed definition should be something like:

A person is mentally ill when he or she suffers from internal conflicts that may be subconscious or unconscious, manifesting behavior that is unwanted or disturbing to the individual or the society.

14 Richard Green, MD

14.1 Your Biography

You were born in 1936 in Brooklyn, New York. You earned your A.B. from Syracuse University in 1957, your MD from Johns Hopkins University School of Medicine in 1961. At Johns Hopkins you studied with John Money, and continued to work with him throughout your career.

Money and you collaborated on a series of studies of so-called 'sissy boys' when you were still ABD starting in the 1960s. This collaboration has yielded a number of studies, including your recent paper "Mythological, historical, and cross-cultural aspects of transsexualism" which is included in your co-edited book *Transsexualism and Sex Reassignment*. Transsexualism has become your life-long research topic.

You are dissatisfied today with the state of the science of sexuality, in part because it is too dominated by theoretical positions and not by empirical research. Moreover, research into sexuality is conducted by individuals in many different disciplines, and there is no single organization or journal that can unify all the researchers from all these disciplines.

Your goal is to create an organization that can promote and defend the empirical, scientific study of sexuality in the U.S. and abroad.

14.2 Game Objectives

You have a long-standing friendship with both Harold Lief and Diane Fordney-Settlage, support here when and where appropriate.

You should argued forcefully in favor of the removal of 'homosexuality' from the DSM. You argue that the grounds for deciding the issue should be the "historical and cross-cultural groundings in homosexual expression, associated psychiatric features accompanying a homosexual orientation, the emotional consequences to the homosexual of societal condemnation, and behaviors of other species."

You should oppose, however, efforts of the Board of Directors to

put it to a public vote, saying that such “a shotgun marriage between science and democracy” was “ludicrous.” A true scientific principle, that is supported by data, need not have public support to be the right thing to do.

Specific Assignment

Initial Committee Membership

No initial memberships, but eligible for any position

Committee 14.1 (Green) no initial committee work

Demedicalization

Working with J. Speigel, petition the Board of Directors in 1971 to create a task force to conduct a historical survey and literature review on the Psychiatric and Psychological treatment of homosexuality. The task force should be balanced between psychologists and psychiatrists, so you need a psychiatrist to support the effort – E. Hooker, G. Albee and John P. Spiegel are good choices. Prepared to turn in a report by 1972.

Oppose any effort to put the issue of demedicalization to a vote of the general membership.

Research

J. Speigel and you should co-author the report. You should invite responses to your paper from Socarides & Beiber and Judd Marmor.¹

¹ Richard Green’s actual paper of the same title was published in 1972 (see ‘Must Read’).

Association Business /DSM-III

Get on the Spitzer Taskforce to rewrite the DSM. You should adamantly oppose any efforts to reintroduce homosexuality—in any form—to the nomenclature. If Spitzer tries to introduce something like ‘homodysphilia’ or ‘ego-dystonic homosexuality’, resign from the task force in a grand, public way (like storming out of class).

Social responsibilities of social scientists

Indeterminate

Assignment 14.1 (Green) With Speigel, write a report (due in 1972) should be titled “Homosexuality as Mental Illness,” and it should summarize the issues at stake in forthcoming debate, as well as cover the history of the classification of homosexuality by the psychological sciences

Definition of ‘mental illness’ and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a psychoanalytic interpretation of mental disorder /illness.

Propose a new journal titled *Archives of Sexual Behavior* to the Board in 1973. If they do not agree, create it when you create the International Academy of Sex Research (IASR) in 1975.

Fission: Found (with E. Hooker) the International Academy of Sex Research, and take the *Archives of Sexual Behavior* with you.

14.3 Must Read

- Green, R. & Money, J. (1961) "Effeminacy in prepubertal boys; Summary of eleven cases and recommendations for case management." *Pediatrics* 27(2), p. 286–291
- Green R. & Money J (1969). *Transsexualism and Sex Reassignment*. The Johns Hopkins University Press (November 1, 1969) ISBN 0-8018-1038-8.
- Green, R. (1972) "Homosexuality as a Mental Illness" *International Journal of Psychiatry* 10:77–98
- Fox, K. "Vancouver – The Richard Green Interview" http://web.archive.org/web/20030609051314/http://www.rfts.a.se/rich_greene.html, accessed 2/17/2011

Secondary Sources

- Reiss, I. (2006). An insider's view of sexual science since Kinsey Rowman & Littlefield, p. 49
- Transsexual Road Map (2010) "Richard Green on gender variance," <http://www.tsroadmap.com/info/richard-green.html> accessed 2/17/2011

15 Robert Hopcke, MD

15.1 Your Biography

You are Robert Hopcke. Your character is actually a bit of a historical anachronism.

The other characters in this game are were actually around in the early 1970s, typically in their 40's and 50's at the time. You were not. In fact, your first book doesn't appear until 1989. That means that today, in 2011, you are active in psychoanalytic circles. Your autobiography is available online at <http://www.robhopcke.com/MyProfessionalExperience.en.html>. I'll quote the summary here:

I have two degrees in counseling: a Master of Arts in Theology, with a Pastoral Counseling emphasis, from Pacific Lutheran Theological Seminary, which is the degree under which I received my Marriage and Family Therapist license in 1986, and a second Master of Arts in Clinical Counseling from California State University, Hayward (now Cal State East Bay). My background encompasses a number of different models and approaches. I am most known for being a Jungian-oriented therapist but also important to my professional identity has been formal training in pastoral counseling and spiritual direction, long-term object-relations psychodynamic treatment, cognitive-behavioral approaches to depression, health and sexuality concerns, and many years of being an "out" gay male therapist and activist in the Bay Area GLBT community. I am a best-selling author, public speaker, teacher, supervisor and professional consultant.

We've included you in the game to voice a gay-positive Jungian perspective. Jung, himself, was not very gay-friendly. And those who follow his theory strictly continued that tradition throughout the 1970s. Thus, in order to find a gay-positive Jungian, we have to break the historical accuracy of the game. As a matter of actual history, you didn't publish this perspective on Jungian psychology until the late 1980s, but that is not important here.

15.2 Game Objectives

Working with your fellow psychiatrists (MD's), create a proposal to limit the treatment of the mentally ill to medical doctors. This should be presented in 1972. Expect a furious response from Albee, and maybe even Szasz. You may choose to work out a compromise with Albee via E. Hooker, who, like you, has multiple degrees.

Your role in this game is to represent the aspect of the Jungian psychoanalytic tradition that was friendly to homosexuals. Jung himself was not. Your primary work has been to reformulate a version of Jungian theory that is consistent with the new taxonomy of sexuality in the DSM. You should present that vision as a paper in 1975.

You should oppose any attempt to remove psychoanalytic language or categories from the DSM. At the same time, you should make sure that the Jungian perspective is protected in the manual.

Specific Assignment

Initial Committee Membership Not a member of a committee at the start of the game in 1971, but as a member of the APA, can run for any open seat.

Committee 15.1 (Hopcke) No initial committee memberships, but eligible for any.

Demedicalization

You are for demedicalization, but you are also for psychoanalysis.

Research

Indeterminate

Association Business /DSM-III

Propose (in 1972) to limit medical care of mentally troubled individuals to hospitals, under the supervision of licensed medical doctors (I.e. Psychiatrists). The Psychologists, specifically Albee, will have counter proposals.

Assignment 15.1 (Hopcke) Prepare a paper reconciling Jungian psychoanalysis with homosexuality. (1975)

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

Support the psychoanalytic definition of mental illness.

Fission: Split to the ApsaA

15.3 Must Read

Hopcke, R. (1988) "Jung and Homosexuality: A Clearer Vision" Journal of Analytical Psychology 33, p. 65–80

Hopcke, R. (1989). Jung, Jungians & Homosexuality, Resource Publications

Secondary Sources

Bostock, C. "Synchronicity: A conversation with Robert Hopcke" available at: http://www.soulworks.net/writings/paradigms/site_047.html

16 Harold Leif, MD

16.1 Your Biography

You were born in Brooklyn and attended the University of Michigan, while earning your medical degree from New York University in 1942. You trained in psychoanalysis at Columbia before going to Tulane University in 1951 to be Professor of psychiatry and neurology. In 1967, you were named president of the American Academy of Psychoanalysis. You are a former president of the Sexuality Information and Education Council of the United States.

You were also director of the Marriage Council of Philadelphia and counseled couples. You focused on studying conflicts between spouses and looked at the connection between testosterone levels and sexual desire in both genders.

In the early 1960s, you turned your attention to getting schools to adopt a more serious and scientific approach to teaching medical students about adult sexuality and development.

16.2 Game Objectives

You have a long-standing friendship with both Richard Green and Diane Fordney-Settlage.

Argue against the Nomenclature's proposal to write the new DSM according to statistics and observations rather than theory and causation. In this case, you are voicing the defense of classical and Jungian psychoanalysis against the growing dominance of psychopharmacology. Review the history of the definition of mental illness in the game book carefully, as well as the DSM-II. You are not necessarily defending the taxonomy presented in the DSM-II, but you are defending the idea that the taxonomy of psychiatric disorders should be made with an understanding of the mental mechanisms of psychoanalysis—specifically the genetic hypothesis.

Specific Assignment

Initial Committee Membership

No initial committee memberships, but eligible for any

Committee 16.1 (Leif) No initial committee memberships, but eligible for any

Demedicalization

Indeterminate

Research

Indeterminate

Association Business /DSM-III

Get on the task force or committee that is in charge of writing the DSM-III. Your primary interlocutor in the previous section was probably Spitzer, so you may have some work to get appointed by him. Therefore you have two options to consider: first, you can oppose the creation of the task force entirely, and then get elected to the nomenclature committee, or you can convince Spitzer to add you to his task-force once it is created.

Assignment 16.1 (Leif) Paper defending the genetic hypothesis as core to taxonomy in 1974, in opposition Spitzer and his proposed 'Feighner criteria.'

Social responsibilities of social scientists

Indeterminate

Definition of 'mental illness' and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a psychoanalytic interpretation of mental disorder /illness.

Fission: Split to the ApsaA

16.3 Must Read

Leif, H. (1964) "The Psychological Basis of Medical Practice" Postgrad Med J 40:355 doi:10.1136/pgmj.40.464.355-a

Secondary Sources

http://www.nytimes.com/2007/03/23/obituaries/23leif.html?_r=1

17 Charles Socarides, MD

17.1 Your Biography

When you were 13, you read a biography of Sigmund Freud and immediately decided to become a psychoanalyst. You were trained in Psychoanalytic Medicine Columbia University Center for Psychoanalytic Training and Research, graduating in 1952.

You have been practicing psychoanalysis in New York City since 1954, focusing on the treatment of homosexuality. You report that 'about a third' of your patients became heterosexual after psychoanalytic treatment. Following Freud, you believe that homosexuality is a neurotic adaptation to unresolved conflict, usually originating in the Oedipal stage of development. You do not argue that homosexuality is immoral in the sense of 'against god's will' or anything like that, you simply believe that it is a maladaptation to normal development. You actually see yourself as an advocate for homosexuals, for you do not believe homosexuality is criminal or immoral, you believe it an illness like any other.

According to a 1995 interview in the NY Times "Socarides offered the closest thing to hope that many gay people had in the 1960s: the prospect of a cure. Rather than brand them as immoral or regard them as criminal, Socarides told gay people that they suffered from an illness whose effects could be reversed."

17.2 Your View

You are a Freudian, through and through. But more than that, you are a leader in the psychoanalytic treatment of homosexuality. Your theory, that male homosexuality resulted from suppressed feelings of rejection caused by a cold, distant father and a misidentification of gender identity because of an overbearing mother, is orthodoxy. Not only has it become the popular notion of homosexuality in the public discourse, but it informs dominate treatment paradigm in the psychoanalytic community.

It is not, however, Freud's view. Your theory is 'Freudian,' not

Freud. And it is worth pointing out that the theoretical explanation and treatment paradigms for homosexuality are different in England and Europe.

Freud mentions homosexuality a number of places in Introductory Lectures on Psychoanalysis, and it is crucially important that you study these carefully. Freud believes that sexual life of children, which is regarded at the time as ‘normal’ includes a number of activities that would later in life be viewed as ‘perverse’, including same-sex contact. In Freud’s theory, heterosexuality develops with puberty in normal people. In ‘inverts’ or homosexuals, something goes wrong in this development. The object of ones’ ‘natural’ desire—the genitals of the opposite sex—becomes transformed into parts of the body that represent those parts in the same sex. Thus, homosexuality is no different in psychological mechanism than a foot fetish or any other neurotic ‘perversion’ (see p. 376–384 of Introductory Lectures) Homosexuality is not a psychologically isolated condition. According to Freud:

“We are compelled, however, to regard the choice of an object of one’s own sex as a divergence in erotic life which is of positively habitual occurrence, and we are learning more and more to ascribe an especially high importance to it.” (p. 381)

In short, homosexuality is a kind of neurosis, yet it is not, itself, particularly worrying. The action itself is merely ‘habitual,’ and hence can be cured through standard habit-blocking therapy (Freud suggests that paranoia stops homosexuality on p. 381 of the Introductory Lectures). It is, however, invariably an indicator of deeper psychological problems, as the transference and substitution of the ‘natural’ object of sexual desire to a different object will cause neurosis. See Ch 26 of the Introductory Lectures, especially p. 530, for Freud’s explanation of homosexuality as neurotic narcissism.

For you, Bieber and Socarides, this theory is transformed somewhat. You argue, in your 1962 study Homosexuality, that the normal course of development of puberty includes the identification of genders with innate ‘active or passive tendencies’ (p 4), and then self-identification with one of those tendencies. If a child has an innate tendency towards activity or passivity out of line with his or her gender, he or she is more likely to develop ‘homosexual habits’.

At the same time, if an adolescent develops a pathological fear of heterosexual contact—specifically a fear of the gentiles of the opposite sex—that subconscious fear will motivate the ego to transform the object of sexual desire into something that is familiar: a part of the adolescent’s own body. These fears are usually the result of some disturbed parent-child relationship. Just as the Oedipal phase is a normal part of development, fear of the opposite sex is a normal part of

development. Heterosexuals are those for whom those fears resolve through maturation.¹

Homosexuals are, then, those who never fully mature in their sexuality, getting stuck at a stage where children are fearful of the other and fascinated with their own bodies. They pathologically project that self-love onto members of their own gender, instead of resolving their fears through heterosexual exploration.

You characterize Freud's theory of the development of homosexuality in three steps:

1. The autoerotic phase partially persists and object cathexis is partially accomplished, but on a narcissistic level.
2. Mental attitudes that exist during the phallic stage remain into adulthood.
3. There are difficulties associated with the Oedipus phase.

It is worth noting that Bieber's analysis was only of male homosexuality. Freud wrote one study of Lesbianism, which is included in the appendix of the game book.

Regardless of the particulars of your or Freud's view, you are absolutely committed to the thesis that

"All psychoanalytic theories assume that adult homosexuality is psychopathologic and assign differing weights to constitutional and experiential determinants. All agree that experiential determinants are in the main rooted in childhood and are primarily related to the family. Theories which do not assume psychopathology hold homosexuality to be one type of expression of a polymorphous sexuality which appears pathologic only in cultures holding it to be so." (p 18)

17.3 *Game Objectives*

Complicating matters somewhat, you (Bieber) were once classmates with Judd Marmor! You were friends then, and that personal relationship may be at stake in this debate.

During your presentations, you must be able to both articulate the current psychoanalytic understanding of homosexuality and its connection to Freud's theory as presented in Introductory Lectures on Psychoanalysis. You should also be ready to present any evidence that you may have that this theory is accurate. You'll find that evidence in Ch 2 Bieber's 1962 book, listed under 'Must Read' below. The first chapter contains Biebers' critiques of the Kinsey study (p. 16), Hooker's study (p. 17), as well as the movement to declassify homosexuality as a mental illness in the UK (p. 15).²

Your theory is summarized in Ch 9 of your 1962 book:

¹ Freud's discussion of the fixation of perversion as distinct from neurosis on p. 446–448 of the Introductory Lectures may be helpful here.

² See also Ch 12, ph. 304–306

We consider Homosexuality to be pathologic bio-social, psychosexual adaptation to pervasive fears surrounding the expression of heterosexual impulses. In our view, every homosexual is, in reality, a "latent" heterosexual; hence we expected to find evidences of heterosexual strivings among the H-patients in our study. (p. 220)

As a student, we leave it to you to decide if the evidence presented therein is sufficient motivation for the theoretical mechanism you are proposing.

As the character, you have to make the best case you can for your position – the audience will determine if the evidence you present motivates the mechanism you defend. You have few, if any, friends in this effort. We're sorry about that, but it is historically accurate. Marmor and Spiegel have begun to be successful in separating psychoanalysis from your views on homosexuality. Your job in this game, then, is to advocate for a position that is almost certainly going to lose.

While you need to make your case, you might want to put most of your energy focusing on something you can win: continuing the dominance of psychoanalysis in psychiatry and allowing treatment for individuals who see therapy for homosexuality voluntarily. The DSM often determines which conditions a therapist can treat in a clinical setting, or get funding to study scientifically. If 'homosexuality' is removed entirely, no one in psychiatry will be allowed to help individuals seeking treatment, or conduct scientific research into homosexuality. Those consequences are things you cannot live with.

Look back at the definition of 'psychic illness' presented by Freud in Introductory Lectures (p. 445, but quoted in the gamebook 'History of Mental Illness: Freud' section. For Freud (and Freudians), a psychic illness is something detrimental to one's life as a whole, something that the patient complains about, or that brings the patient displeasure. Removing homosexuality from the list of mental illness will likely not change these facts for your patients, but you will no longer be allowed to treat them—and that seems to go against your oath as a medical doctor.

If the proposal from Marmor comes to the floor in 1971, present a proposal to stall the vote until after a taskforce conducts a literature review on the efficacy of treatment for homosexuality. You will request total control of that task force, including appointing its members. If you are successful, you will appoint yourself and yourself (Socarides and Bieber).

You report should present aversion therapy as an effective method for stopping homosexual behavior. This is something of a anachronism for the sake of the game, as Socarides and Bieber were psychoanalysts. But its use was widespread in the treatment of homosexuality at the time, and you are the most famous defender of the medicaliza-

tion of homosexuality.

If you are unsuccessful in getting the taskforce, you can join with Albee in his call for an ad hoc committee to be formed to study the history of the homosexuality in psychology and psychiatry. Your goal here is to make it acceptable to continue to treat homosexuals if they request it, even if it homosexuality itself was not considered a mental illness.

If it looks like the vote to remove homosexuality will pass in 1973 (and it almost certainly will), start collecting 'signatures' on a petition calling for the abdication of that vote, on the grounds that the decision was political (i.e. the board caved to the demands of the activists) and not scientific. If you can get 10% of the class to sign, you *may* be able to force a postponement or revote.

If the 'Leona Tyler' principle passes in or around 1973, banning the APA from making taking public positions on things not motivated by evidence, reintroduce your proposals, arguing that the removal of homosexuality was on the basis of politics, not science. If none of this works and 'homosexuality' is removed, and research and treatment of homosexuality is banned by the APA, quit (in 1975) and found your own private organization called 'NARTH': North American association for Research and Therapy on Homosexuality (as a student, look it up).

Specific Assignment

Initial Committee Membership None to start, but as a member of the APA is eligible to run for any seat.

Committee 17.1 (Socarides) No initial committee assignment, but eligible for all.

Demedicalization

Propose a taskforce to study sexual deviation in 1971, which will report back to the membership in 1973. Your report should summarize and present your Freudian view carefully.

R. Green and J. Spiegel will likely propose a taskforce on the history of homosexuality in psychiatry and psychology that will report in 1972. You should be ready to give an 'official' response to this report. Marmor probably will as well, so be prepared for a head-to-head debate in public.

Research

Indeterminate

Association Business /DSM-III

Vehemently oppose any attempt to remove psychoanalytic language from the DSM.

Social responsibilities of social scientists

Your view is complex here, as you really believe that you are helping homosexual individuals become productive members of the heterosexual society. You, as the student, will need to decide where your character stands on this issue.

Assignment 17.1 (Socarides) Your report should summarize and present your Freudian view carefully.

Definition of ‘mental illness’ and fission of the APA

when and if the game gets to a point where the APA attempts to create a definition of ‘mental illness’, work to get a psychoanalytic version passed. You must also advocate for a theory of mental illness that takes into account the ‘natural function’ of a body. Recall Freud’s criteria for neurosis: if an individual’s psychology is out of step with their biology, it will cause that individual to always be unfulfilled, and hence, will be detrimental to their overall outlook. A healthy person is one who recognizes his or her own physical function and seeks a life in accordance with those functions.

split to the American Psychoanalytic Association (APsaA).

SECRET: you are bound by patient-client confidentiality. Your patients are not. This is particularly difficult because many of the street activists who are disrupting meetings are your former patients. No one (other than them) can know that. By your best estimates, your therapy is effective only about 1/3 of the time. Many of your patients are brought to you by their parents. In a classic transference reaction, their anger against their parents is transferred to you, and drives them to classic father-rebellion activities after therapy ends.

One in particular: Ron Gold, has you concerned. Ron is now a journalist for Variety, and you saw him at the incident in New York arguing with Robert Spitzer. Ron Gold may not be a character, depending on the size of the class.

17.4 Must Read

Bieber, I. (1962). Homosexuality: A Psychoanalytic Study: By Irving Bieber, et. al. New York: Basic Books, New York

Socarides, C.W. (1963). “Homosexuality: A Psychoanalytic Study: By Irving Bieber, et. al. New York: Basic Books Inc., 1962 385 pp.”
Psychoanalytic Quarterly, 32: 111–114

Socarides, C. W. (1968). *The Overt Homosexual*. Jason Aronson, Inc.
Socarides, C.W. (1970). "Homosexuality and Medicine" *Journal of
the American Medical Association* 212 (7): 1199

18 Irving Bieber, MD

18.1 Your Biography

You were born in New York City in 1909. You graduated from New York University Medical College in 1930, but went on to work at Yale Medical College, New York University, and starting in 1953 at the New York Medical College, where you taught a course in psychoanalysis. Your 1962 book *Homosexuality: A Psychoanalytic Study of Male Homosexuals* is, in many ways, a response to the Kinsey Report. It reports on your study of 106 male homosexuals and 100 male heterosexuals seeking psychoanalysis for various problems.

In 1970, you attended a meeting of the American Psychiatric Association in San Francisco that was disrupted by gay activists, one of whom called you a “motherfucker.” According to Charles Socarides, you took this very hard after having “been working all these years to help these people.” In 1973, you told an interviewer that “a homosexual is a person whose heterosexual function is crippled, like the legs of a polio victim.” You believed that, “although this change may be more easily accomplished by some than by others, in our judgment a heterosexual shift is a possibility for all homosexuals who are strongly motivated to change.”

18.2 Your View

You are a Freudian, through and through. But more than that, you are a leader in the psychoanalytic treatment of homosexuality. Your theory, that male homosexuality resulted from suppressed feelings of rejection caused by a cold, distant father and a misidentification of gender identity because of an overbearing mother, is orthodoxy. Not only has it become the popular notion of homosexuality in the public discourse, but it informs dominate treatment paradigm in the psychoanalytic community.

It is not, however, Freud’s view. Your theory is ‘Freudian,’ not Freud. And it is worth pointing out that the theoretical explanation and treatment paradigms for homosexuality are different in England

and Europe.

Freud mentions homosexuality a number of places in *Introductory Lectures on Psychoanalysis*, and it is crucially important that you study these carefully. Freud believes that sexual life of children, which is regarded at the time as ‘normal’ includes a number of activities that would later in life be viewed as ‘perverse’, including same-sex contact. In Freud’s theory, heterosexuality develops with puberty in normal people. In ‘inverts’ or homosexuals, something goes wrong in this development. The object of ones’ ‘natural’ desire—the genitals of the opposite sex—becomes transformed into parts of the body that represent those parts in the same sex. Thus, homosexuality is no different in psychological mechanism than a foot fetish or any other neurotic ‘perversion’ (see p. 376–384 of *Introductory Lectures*) Homosexuality is not a psychologically isolated condition. According to Freud:

“We are compelled, however, to regard the choice of an object of one’s own sex as a divergence in erotic life which is of positively habitual occurrence, and we are learning more and more to ascribe an especially high importance to it.” (p. 381)

In short, homosexuality is a kind of neurosis, yet it is not, itself, particularly worrying. The action itself is merely ‘habitual,’ and hence can be cured through standard habit-blocking therapy (Freud suggests that paranoia stops homosexuality on p. 381 of the Introductory Lectures). It is, however, invariably an indicator of deeper psychological problems, as the transference and substitution of the ‘natural’ object of sexual desire to a different object will cause neurosis. See Ch 26 of the Introductory Lectures, especially p. 530, for Freud’s explanation of homosexuality as neurotic narcissism.

For you, Bieber and Socarides, this theory is transformed somewhat. You argue, in your 1962 study *Homosexuality*, that the normal course of development of puberty includes the identification of genders with innate ‘active or passive tendencies’ (p 4), and then self-identification with one of those tendencies. If a child has an innate tendency towards activity or passivity out of line with his or her gender, he or she is more likely to develop ‘homosexual habits’.

At the same time, if an adolescent develops a pathological fear of heterosexual contact—specifically a fear of the gentiles of the opposite sex—that subconscious fear will motivate the ego to transform the object of sexual desire into something that is familiar: a part of the adolescent’s own body. These fears are usually the result of some disturbed parent-child relationship. Just as the Oedipal phase is a normal part of development, fear of the opposite sex is a normal part of development. Heterosexuals are those for whom those fears resolve through maturation.¹

Homosexuals are, then, those who never fully mature in their sex-

¹ Freud’s discussion of the fixation of perversion as distinct from neurosis on p. 446–448 of the Introductory Lectures may be helpful here.

uality, getting stuck at a stage where children are fearful of the other and fascinated with their own bodies. They pathologically project that self-love onto members of their own gender, instead of resolving their fears through heterosexual exploration.

You characterize Freud's theory of the development of homosexuality in three steps:

1. The autoerotic phase partially persists and object cathexis is partially accomplished, but on a narcissistic level.
2. Mental attitudes that exist during the phallic stage remain into adulthood.
3. There are difficulties associated with the Oedipus phase.

It is worth noting that your analysis is only of *male* homosexuality. Freud wrote one study of Lesbianism, which is included in the appendix of the game book.

Regardless of the particulars of your or Freud's view, you are absolutely committed to the thesis that

"All psychoanalytic theories assume that adult homosexuality is psychopathologic and assign differing weights to constitutional and experiential determinants. All agree that experiential determinants are in the main rooted in childhood and are primarily related to the family. Theories which do not assume psychopathology hold homosexuality to be one type of expression of a polymorphous sexuality which appears pathologic only in cultures holding it to be so." (p 18)

18.3 Game Objectives

Complicating matters somewhat, you (Bieber) were once *classmates* with Judd Marmor! You were friends then, and that personal relationship may be at stake in this debate.

During your presentations, you must be able to both articulate the current psychoanalytic understanding of homosexuality and its connection to Freud's theory as presented in *Introductory Lectures on Psychoanalysis*. You should also be ready to present any evidence that you may have that this theory is accurate. You'll find that evidence in Ch 2 Bieber's 1962 book, listed under 'Must Read' below. The first chapter contains Biebers' critiques of the Kinsey study (p. 16), Hooker's study (p. 17), as well as the movement to declassify homosexuality as a mental illness in the UK (p. 15).²

Your theory is summarized in Ch 9 of your 1962 book:

We consider Homosexuality to be pathologic bio-social, psychosexual adaptation to pervasive fears surrounding the expression of heterosexual impulses. In our view, every homosexual is, in reality, a

² See also Ch 12, ph. 304–306

"latent" heterosexual; hence we expected to find evidences of heterosexual strivings among the H-patients in our study. (p. 220)

As a student, we leave it to you to decide if the evidence presented therein is sufficient motivation for the theoretical mechanism you are proposing.

As the character, you have to make the best case you can for your position – the audience will determine if the evidence you present motivates the mechanism you defend. You have few, if any, friends in this effort. We're sorry about that, but it is historically accurate. Marmor and Spiegel have begun to be successful in separating psychoanalysis from your views on homosexuality. Your job in this game, then, is to advocate for a position that is almost certainly going to lose.

While you need to make your case, you might want to put most of your energy focusing on something you can win: continuing the dominance of psychoanalysis in psychiatry and allowing treatment for individuals who see therapy for homosexuality voluntarily. The DSM often determines which conditions a therapist can treat in a clinical setting, or get funding to study scientifically. If 'homosexuality' is removed entirely, no one in psychiatry will be allowed to help individuals seeking treatment, or conduct scientific research into homosexuality. Those consequences are things you cannot live with.

Look back at the definition of 'psychic illness' presented by Freud in *Introductory Lectures* (p. 445, but quoted in the gamebook 'History of Mental Illness: Freud' section. For Freud (and Freudians), a psychic illness is something detrimental to one's life as a whole, something that the patient complains about, or that brings the patient displeasure. Removing homosexuality from the list of mental illness will likely not change these facts for your patients, but you will no longer be allowed to treat them—and that seems to go against your oath as a medical doctor.

If the proposal from Marmor comes to the floor in 1971, present a proposal to stall the vote until after a taskforce conducts a literature review on the efficacy of treatment for homosexuality. You will request total control of that task force, including appointing its members. If you are successful, you will appoint yourself and yourself (Socarides and Bieber).

You report should present aversion therapy as an effective method for stopping homosexual behavior. This is something of a anachronism for the sake of the game, as Socarides and Bieber were psychoanalysts. But its use was widespread in the treatment of homosexuality at the time, and you are the most famous defender of the medicalization of homosexuality.

If you are unsuccessful in getting the taskforce, you can join with Albee in his call for an ad hoc committee to be formed to study the

history of the homosexuality in psychology and psychiatry. Your goal here is to make it acceptable to continue to treat homosexuals if they request it, even if it homosexuality itself was not considered a mental illness.

If it looks like the vote to remove homosexuality will pass in 1973 (and it almost certainly will), start collecting 'signatures' on a petition calling for the abdication of that vote, on the grounds that the decision was political (i.e. the board caved to the demands of the activists) and not scientific. If you can get 10% of the class to sign, you may be able to force a postponement or revote.

If the 'Leona Tyler' principle passes in 1973, banning the APA from making taking public positions on things not motivated by evidence, reintroduce your proposals, arguing that the removal of homosexuality was on the basis of politics, not science. If none of this works and 'homosexuality' is removed, and research and treatment of homosexuality is banned by the APA, quit (in 1975) and found your own private organization called 'NARTH': North American association for Research and Therapy on Homosexuality (as a student, look it up).

Specific Assignment

Initial Committee Membership No committee membership to start, but eligible for any

Committee 18.1 (bieber) No committee membership to start, but eligible for any

Demedicalization

Propose a taskforce to study sexual deviation in 1971, which will report back to the membership in 1973. Your report should summarize and present your Freudian view carefully.

R. Green and J. Spiegel will likely propose a taskforce on the history of homosexuality in psychiatry and psychology that will report in 1972. You should be ready to give an 'official' response to this report. Marmor probably will as well, so be prepared for a head-to-head debate in public.

Research

Indeterminate

Association Business /DSM-III

Vehemently oppose any attempt to remove psychoanalytic language from the DSM.

Assignment 18.1 (Bieber) Your report should summarize and present your results of working with Homosexual men in New York.

Social responsibilities of social scientists

Definition of 'mental illness' and fission of the APA

when and if the game gets to a point where the APA attempts to create a definition of 'mental illness', work to get a psychoanalytic version passed. You must also advocate for a theory of mental illness that takes into account the 'natural function' of a body. Recall Freud's criteria for neurosis: if an individual's psychology is out of step with their biology, it will cause that individual to always be unfulfilled, and hence, will be detrimental to their overall outlook. A healthy person is one who recognizes his or her own physical function and seeks a life in accordance with those functions.

Fission: split to the American Psychoanalytic Association (APsaA).

SECRET: you are bound by patient-client confidentiality. Your patients are not. This is particularly difficult because many of the street activists who are disrupting meetings are your former patients. No one (other than them) can know that. By your best estimates, your therapy is effective only about 1/3 of the time. Many of your patients are brought to you by their parents. In a classic transference reaction, their anger against their parents is transferred to you, and drives them to classic father-rebellion activities after therapy ends.

One in particular: Ron Gold, has you concerned. Ron is now a journalist for Variety, and you saw him at the incident in New York arguing with Robert Spitzer. Ron Gold may not be a character, depending on the size of the class.

18.4 Must Read

Bieber, I. (1962). Homosexuality: A Psychoanalytic Study: By Irving Bieber, et. al. New York: Basic Books, New York

Socarides, C.W. (1963). "Homosexuality: A Psychoanalytic Study: By Irving Bieber, et. al. New York: Basic Books Inc., 1962 385 pp."

Psychoanalytic Quarterly, 32: 111-114

Socarides, C. W. (1968). *The Overt Homosexual*. Jason Aronson, Inc.

Socarides, C.W. (1970). "Homosexuality and Medicine" *Journal of the American Medical Association 212 (7): 1199*

19 Judd Marmor, MD

19.1 Your Biography

You were born in London, England in 1911. In 1933, you graduated from Columbia University's school of medicine with a degree in Psychiatry. After serving in the Navy during WWII, you moved to Los Angeles where you developed a successful psychiatric practice. Over time, your practice became something of a 'favorite' of the hollywood elite. As a result, you became particularly famous both in the psychiatric community as well as popular culture. In many ways, you are the most famous psychoanalyst practicing today.

While you are a Freudian, you have always worried about the scientific rigor of the tradition. You generally advocate for psychiatric practice based on scientific principles rather than theoretical grounding – and this is no more important than in the context of homosexuality.

Your practice as 'psychiatrist to the stars' meant that you were constantly approached by young men, some of whom were extremely famous, who sought to change their orientation from gay to straight. You treated them according to the orthodox practice of uncovering the patient's repressed feelings of rejection caused by his cold and distant father and/or his misidentification with gender roles because of an overbearing mother. But these treatments just didn't work. In your own writings on this subject, you described your experiences thusly: "The gay men I saw were caught up, for the most part, in the common myth that it was bad to be gay and that if they possibly could, they ought to try to be heterosexual. I was sympathetic to their wishes to try to become straight if they could... We used to think in those days that psychoanalysis could cure everything, from chilblains to homosexuality. But I wasn't too successful. Some were able to function bisexually but most of them remained gay." (quoted in Kutchins & Kirk, 1997, p. 63).

In 1956, Evelyn Hooker published her study of the mental health of gay men in San Francisco. This changed everything. In retrospect, you have said "The first time I heard Dr. Evelyn Hooker state that homosexuality was not an illness, I wasn't prepared to go all the way.

This was in 1956 when she presented her study of gay men. I was sympathetic to what she was saying but I wasn't totally convinced. I still had a feeling that it was a developmental deviation."

Those 'feelings' dissipated during the 1960's, when you became increasingly frustrated with your attempts to change the behavior of the many homosexuals who have sought your skills as a psychoanalyst. You ultimately concluded that homosexuality is not directly harmful to the mental health of the patients, but the psychic conflict caused by the patients' beliefs that homosexuality is a mental illness and their homosexual orientation is. Homosexuality is, in your view, just a normal variant of human sexuality, not a pathology.

This conviction has lead you into direct conflict with many of your Freudian peers, who continue to believe that homosexuality is a pathology. You suspect that this belief persists in the psychiatric community because of a simple scientific error: the psychiatric community only sees an unrepresentative sample of homosexuals. By and large, psychiatrists are only exposed to homosexuals who seek treatment for their orientation. And that population is exactly the individuals who experience internal conflict between their homosexuality and their belief that it is a mental illness. If psychiatrists were to interact with 'normal' happy, healthy homosexuals outside the clinical setting, they would come to understand that the homosexuality itself is not a mental illness.

Freud mentions homosexuality a number of places in Introductory Lectures on Psychoanalysis, and it is crucially important that you study these carefully. Freud believes that sexual life of children, which is regarded at the time as 'normal' includes a number of activities that would later in life be viewed as 'perverse', including same-sex contact. In Freud's theory, heterosexuality develops with puberty in normal people. In 'inverts' or homosexuals, something goes wrong in this development. The object of ones' 'natural' desire—the genitels of the opposite sex—becomes transformed into parts of the body that represent those parts in the same sex. Thus, homosexuality is no different in psychological mechanism than a foot fetish or any other neurotic 'perversion' (see p. 376–384 of Introductory Lectures) Homosexuality is not a psychologically isolated condition. According to Freud:

"We are compelled, however, to regard the choice of an object of one's own sex as a divergence in erotic life which is of positively habitual occurrence, and we are learning more and more to ascribe an especially high importance to it." (p. 381)

In short, homosexuality is a kind of neurosis, yet it is not, itself, particularly worrying. The action itself is merely 'habitual,' and hence can be cured through standard habit-blocking therapy (Freud suggests

that paranoia stops homosexuality on p. 381 of the Introductory Lectures). It is, however, invariably an indicator of deeper psychological problems, as the transference and substitution of the 'natural' object of sexual desire to a different object will cause neurosis. See Ch 26 of the Introductory Lectures, especially p. 530, for Freud's explanation of homosexuality as neurotic narcissism.

The current advocates of this view are Charles Socarides and Irving Bieber. They will be your main opponents in this game. Complicating matters somewhat, you were actually classmates with Irving Bieber at Columbia. You were friends then, and that personal relationship may be at stake in this debate.

You are also an outspoken advocate for civil and human rights of all sort, having written papers in support of the Civil Rights movement, against McCarthyism and in opposition to the Vietnam war.

You are currently Director of Psychiatry at Cedars-Sinai Medical Center and Professor of Psychiatry at the University of Southern California.

19.2 *Game Objectives*

You are a member of the secret faction 'The Young Turks' with John Spiegel. This is a group of politically progressive psychiatrists founded in 1970, after the events in San Francisco, dedicated to changing the direction psychiatry for the future. You have a connection to the 'Group for the Advancement of Psychiatry,' which has been advocating for progressive causes—specifically, limiting the use of electroshock therapy, ending the persecution of homosexuals by the US Military, desegregating the American south, etc—in psychiatry since the end of WWII.

As a first step, the young turks (specifically you) will propose to the Board of Directors that homosexuality be removed from the next edition of the DSM during the 1971 conference. Your colleagues in psychoanalysis are not necessarily your friends here. In fact, your Freudian colleagues Bieber and Socarides are your opponents. On this issue, your friends are largely hidden. You will need to figure out who supports such a motion, and who does not.

During this process, you will need to work closely with the chair of the nomenclature committee Robert Spitzer. He is convinced that homosexuality is a mental illness, but thinks that the main advocates of that position, Socarides and Bieber, are pushing a social /political agenda, not doing scientific work. You will have to convince him that psychic distress in homosexuals seeking treatment results from the mistaken belief that there is something wrong with being homosexual. Curing that distress is not about curing homosexuality, it is about

curing the individual's social/cultural prejudices.

In 1970, Socarides published a paper in the Journal of the American Medical Association titled "Homosexuality and Medicine" (212 (7): 1199). Introduce a resolution in 1971 during 'new business' condemning the article as unscientific and calling for its retraction. Your proposal should call Socarides' theory a "monstrous attack on homosexuality."

Once homosexuality is removed from the taxonomy of mental illnesses, get elected president. If you cannot do that, get appointed to the Spitzer Task Force. In either of these roles, you should advocate for the president to appoint a special director or task force to lead the effort of removing the stigma of 'mental illness' from homosexuality.

It is likely that Socarides and Bieber will move to abdicate the vote of the nomenclature committee. If you are president in 1974, propose a referendum of the membership on the issue of the declassification of homosexuality. If you are not, work with Spitzer and the President to move the issue to a referendum.

Specific Assignment

Initial Committee Membership Initial member of the Research Committee. Try to run for President.

You should make yourself familiar with the sections of the game book titled 'A Primer on Research Methods' and 'Ethics of Human Research'. Your gamemaster will give you an additional sheet outlining the responsibilities of members of the research committee in evaluating proposals.

Committee 19.1 (Marmor) Initial member of the Research Committee with term expiring 1974.

Demedicalization

In 1971, propose that 'homosexuality' be removed from 302.00 of DSM-II. In making this proposal, you should make sure you read out the actual language of 302.

In 1972, after Bieber's report comes in, you should propose a condemnation of Socarides' 1970 JAMA paper as a 'monstrous attack on homosexuality'. It is very, very rare for the APA to issue a public condemnation, so you will have to do your homework and be seriously prepared.

Research

Work with Green and Spiegel to propose a taskforce to report on the history of the homosexuality in psychology and psychiatry in 1972. He will invite responses to the report. You should be one of those responses. Bieber and/or Socarides will probably be the other one, so

be prepared for a face-to-face debate in public on their view.

Association Business /DSM-III

During the restructuring of the DSM-III, you should be chiefly concerned with protecting the psychoanalytic tradition. While you think that homosexuality is not a mental illness, you are not willing to give up the 'dynamic hypothesis': the Psychoanalytic commitment to the etiology of mental illness in terms of inter-psychical conflict.

Social responsibilities of social scientists

Indeterminate

Assignment 19.1 (Marmor) present your paper "Limitations of Free Association" to the population. The paper is available in Arch. Gen. Psychiat. 22:160-165, 1970. You should read it, and present and defend the data in character.

Definition of 'mental illness' and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a psychoanalytic interpretation of mental disorder /illness. If a definition contains reference to a 'natural function' or another similar assumption, you should fight that proposal.

Fission: While you support the founding of the ApsaA, you are not willing to abandon the APA.

19.3 Must Read

Marmor, J. (1970) "The Limits of Free Association" Arch. Gen. Psychiat. 22, p. 160–165

Marmor, J. (Ed.) (1965). Sexual inversion: The multiple roots of homosexuality (pp. 83107). New York: Basic Books.

Socarides, C.W. (1970). "Homosexuality and Medicine" Journal of the American Medical Association 212 (7): 1199

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Kutchins, H. & Kirk, S. (1997) Making Us Crazy. Free press
JuddMarmorPapers Marmor-LimitsOfFreeAssociation Marmor-LimitsOfFreeAssociation2

20 John Spiegel, MD

20.1 Your Biography

You are John P. Spiegel, MD. You were born in 1911 in Chicago. You graduated from Dartmouth College and went to Medical school at Northwestern. You are a former president of the American Academy of Psychoanalysis.

During WWII, you were a medical officer in the army, where you became friends with Dr. Roy Grinker. The two of you co-authored a hugely influential book at the end of the war titled *Men Under Stress*, in which you argued that combat fatigue (now called 'post traumatic stress disorder') was not a character flaw, but could happen to anyone.

Since the end of the war, you've taught at the University of Chicago and Harvard. You were offered the directorship of the Lemberg Center for the Study of Violence at Brandeis in 1966, and you took it. You've been there ever since.

20.2 Objectives

You are a member of the secret faction 'The Young Turks' with Judd Marmor. This is a group of politically progressive psychiatrists founded in 1970, after the events in San Francisco, dedicated to changing the direction psychiatry for the future. You have a connection to the 'Group for the Advancement of Psychiatry,' which has been advocating for progressive causes—specifically, limiting the use of electroshock therapy, ending the persecution of homosexuals by the US Military, desegregating the American south, etc—in psychiatry since the end of WWII.

As a first step, the Young Turks will propose to the Board of Directors that homosexuality be removed from the next edition of the DSM during the 1971 conference. You'll notice that you start the game on the nomenclature committee with Spitzer. Thus, the task of making the proposal will fall to Marmor, but you'll be there on nomenclature when it comes to your committee for discussion. It is your responsibility to convince Spitzer and Albee to support the proposal.

You should participate on the task force to report on the treatment of homosexuality with Green between 1971–1972. That task force should provide the historical background necessary for the nomenclature board to make its decision.

Once that is passed, you will work closely with Robert Spitzer on the formation of his task force. You should run for vice president in 1974 / 1975, so that you will be president when Spitzer's report is due. If elected for 1975, your presidential address should endorse and defend the new form of the DSM taxonomy. Your ideology here is pragmatic. You want homosexuality removed, but are willing to make compromises on other issues. It is far more important to you that homosexuality is removed from the nomenclature and a theoretically-neutral DSM is created than any specific item of classification.

Specific Assignment

Initial Committee Membership Start out as member of the nomenclature committee with term expiring 1974. Is eligible for all positions after that term. Run for President.

Committee 20.1 (Spiegel) Initial member of the Nomenclature committee with term expiring 1974

Demedicalization

As a member of the Young Turks, you are dedicated to the demedicalization of homosexuality. If Armor's initial proposal to remove homosexuality fails, you will work with Green to create a task force to conduct a historical survey of the literature on homosexuality. See 'Research' for more info.

Research

Working with R. Green (if he is a character in your gam), petition the Board of Directors in 1971 to create a task force to conduct a historical survey and literature review on the Psychiatric and Psychological treatment of homosexuality. The task force should be balanced between psychologists and psychiatrists, so you need a psychiatrist to support the effort – E. Hooker and G. Albee are a good choices..

Assignment 20.1 (Spiegel) With Green, write a report (due in 1972) should be titled "Homosexuality as Mental Illness," and it should summarize the issues at stake in forthcoming debate, as well as cover the history of the classification of homosexuality by the psychological sciences

Association Business /DSM-III

Work with Spitzer on the proposals to create his task force—and be certain to ensure adequate voice from the psychoanalytic community.

Social responsibilities of social scientists

Officially neutral, but given your advocacy in the case of homosexuality, you are probably opposed to the Leona Tyler principle.

¹ Richard Green's actual paper of the same title was published in 1972 (see 'Must Read').

Definition of 'mental illness' and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a psychoanalytic interpretation of mental disorder /illness.

Your report (due in 1972) should be titled "Homosexuality as Mental Illness,"¹ and it should summarize the issues at stake in forthcoming debate, as well as cover the history of the classification of homosexuality by the psychological sciences. R. Green and you should co-author the report. You should invite responses to your paper from Socarides & Beiber and Judd Marmor.

20.3 *Must Read*

Grinker, R. & Spiegel, J. P. (1945) Men Under Stress American Psychological Association. Was once available print-on-demand, but is not currently: www.apa.org/pubs/books/4320127.aspx

21 Behaviorist Overview

The central issue in this game—whether it be voiced in the selection of experiments to be run via the grants committee or in the classification of mental illness in the nomenclature committee—is the nature of the scientific investigation of the human mind. Behaviorists, following Skinner, hold that scientific method must restrict itself to describing correlations between initial conditions (stimuli) and resultant behaviors (responses). It believes that to be scientific, a research must seek law-like generalizations that express relationships between observable, measurable variables.

It follows, then, that behaviorists reject the hypothetical-deductive method of science advanced by thinkers like John Stuart Mill and John Dewey (see the history of Behaviorism in the game book) as misleading and inaccurate characterizations of the way that scientific reasoning proceeds. While it does not deny the validity of careful case studies in the collection of data, it denies the generalizability of those findings without experimental results.

As a result, behaviorists view psychoanalysis as “voodooism” (Watson, 1928, p. 94)¹ and a “delusion” [p. 142]. Jastrow 1932² Skinner went so far as to systematically define the central mechanisms of psychoanalytic theory in behavioristic terms in Chapter 24 of his 1953 *Science and Human Behavior*.

In addition to the thesis that introspection is not a reliable scientific methodology, Behaviorists have a couple of other lines of argument that are frequently used: First, they argue that mental states are causally irrelevant, as ‘mental’ things are meant to be non-physical, and only physical things can causally interact with physical things. Second, they argue that explanations of behavior in terms of ‘inner states’ are ad hoc: the supposed ‘ideas’ or ‘mind’ is invented after the fact as an explanation of the behavior, rather than an actual cause. Behaviorists point to the fact that these mental states are almost always posited to have exactly those properties necessary to cause the explained behavior. Rarely, if ever, is a mental property invoked in making a bold and surprising prediction. Rather, they are reminiscent of the ‘faculties’ of phrenology: every behavior is explained perfectly

¹ Watson, J.B. (1928). *The Ways of Behaviorism*, Harper & Brothers, New York

² Jastrow, J. (1932). *The house that Freud built*, Greenberg.

by positing a hypothetical faculty for that behavior.³

³ See. e/g/Skinner (1953) pg. 27–30

When the game reaches the point of trying to define mental illness, you must pass a behaviorist interpretation, roughly:

A person can be called 'mentally ill' when he or she exhibits emotional or behavioral functioning which is so impaired as to interfere substantially with his or her capacity to function in society.

22 Albert Bandura, PhD

22.1 Your Biography

You were born in 1925 in a sparsely populated part of northern Alberta, Canada, to Eastern-european immigrant parents. Your parents were devoted to education, despite having no formal education of their own. In fact, your father served on the local school board and taught himself to read three languages.

Your primary and secondary schooling was entirely in the local one-room schoolhouse, where overworked teachers were required to stretch resources beyond the breaking point. You would later write that this complete lack of resources forced you and your peers to develop self-directed learning skills, which carried you throughout your academic career.

You enrolled at the University of British Columbia to study Biology after high school. When looking for a class to fill an empty slot in your schedule, you stumbled upon an introduction to psychology class. It captured your imagination. After changing majors, you graduated three years later with the top award in the department. You immediately enrolled at the University of Iowa, where Kenneth Spence, student of Clark Hull (see the history of the APA in the gamebook), dominated the department. You did not, however, study with Spence, choosing to work with Arthur Benton.

When seeking a break from your studies, you and a friend went golfing. You were running late and missed your scheduled tee-time. As a result, you got stuck behind a group of young female nursing students. On one fateful hole, you met one of them, Virginia Varns in a sand trap. You fell in love and were married in 1952. You have two daughters, Mary, who was born in 1954 and Carol in 1958. You finished your PhD in 1952 and joined the Stanford department of psychology in 1953, where you still teach.

22.2 *Game Objectives*

You start the game as VP, inheriting the presidency in 1972. Miller is your intellectual opponent, but your personal friend. Both of you were trained in behaviorism, and many think that your evidence from the Bobo doll study supports Miller's new 'Cognitive Psychology'. It is important that you articulate the behavioristic interpretation of the evidence and work hard to make sure that Behaviorists have access to research.

The question you wanted to resolve is how it is that the children who exhibited novel aggressive behavior were doing so – none of the aggressive behavior was reinforced externally, but that can be handled by adjusting the notion of 'reinforcement' to include:

- Past reinforcement (i.e. classical conditioning)
- promised reinforcement (i.e. imagined reward)
- vicarious reinforcement (i.e. seeing someone else reinforced for their similar behavior reinforces one's own). [This notion is attributed to Bandura]

Even though you were trained at one of the centers of Behaviorism, you were never wholly satisfied with the traditional view's explanatory power. You have always held that behavior is constrained and reinforced in a social setting. Specifically, you worry that the trial-and-error approach of traditional behaviorism just isn't empirically verified by observing how children learn. Traditional behaviorism appears unable to explain, for example, self-directed behavior like the kind you exemplified in elementary and high school. It seems to you that children model adult behavior without a trial-and-error with reinforcement process.

Your position in the game is a complex one. Contemporary commentators want to see you as either the godfather of cognitivism or the last of the behaviorists. You, however, characterize this position with a bit more subtlety:

"At the time of my graduate training, the entire field of psychology was behaviorally oriented with an almost exclusive focus on the phenomenon of learning. But I never really fit the behavioral orthodoxy. At the time virtually all of the theorizing and research centered on learning through the effects of reinforcing outcomes. In my first major program of research, I argued against the primacy of conditioning in favor of observational learning, in which people neither emit responses nor receive reinforcements during the process of learning. Indeed, my first major publication was a lengthy chapter on 'Social Learning Through Imitation' in the 1962 Nebraska Symposium on Motivation, in which I conceptualize observational learning as mediated through perceptual and cognitive processes. On pages 260–261 of this chapter, I present a parody on how trying to shape auto driving skills through operant conditioning would unshape the driver and the surrounding environment!"

I rejected Miller and Dollard's view of imitation as merely a special case of instrumental conditioning. While behaviorists were plotting learning curves as a function of number of reinforced trials, I published a chapter on 'No trial learning' in a volume edited by Berkowitz."

"During this period, behaviorists were championing the shaping and control of human behavior by rewarding and punishing consequences. I began a second major program of research on the capacity for self-directedness to regulate one's own behavior through personal standards and self-reactive influences. The initial studies on the acquisition of self-evaluative standards for self-directedness were reported in the 1963 book with Richard Walters on *Social Learning and Personality Development*."

"In the early writings I acknowledged the phenomena encompassed under the labels of conditioning and reinforcement. But what text writers and those relying on secondary sources were missing is that I conceptualized these phenomena as operating through cognitive processes. 'Reinforcement' affected behavior by instilling outcome expectations rather than by stamping in responses. See pages 16–22 in *Social Learning Theory* (1977). I also conceptualized instrumental and classical conditioning in terms of acquisition of expectancies rather than coupling responses to stimuli. See chapter 10 in *Principles of Behavior Modification* entitled, 'Symbolic Control of Behavioral Changes.'"

"The theorizing that is currently in vogue attributes behavior to multilevel subpersonal neural networks devoid of any consciousness, subjectivity, or self-identity. While this line of theorizing views humans as high-level automata, I have been emphasizing the exercise of human agency."

"The explanatory issue of interest is not my transformation from behaviorism to sociocognitivism, but rather why authors of psychological texts continue to mischaracterize my approach as rooted in behaviorism. You ask how I would describe my early position? Social cognitivism. It emphasized that learning is embedded in social networks and that environmental influences are largely mediated through cognitive processes. To correct another error in many textbooks, I was not a student of Kenneth Spence. He was the dominant force in the Iowa Department, but Arthur Benton was my academic advisor." (from <http://www.des.emory.edu/mfp/banconversion.html>)

Specific Assignment

Initial Committee Membership Initial vice-president, will become President in 1972, and Former President in 1973.

Committee 22.1 (Bandura) Member of the Board of Directors as Vice President in 1971, will serve as President in 1972.

Demedicalization

When Bieber and Socarides submit their report on sexual deviation in 1972, you should reject it as assuming too strict a Freudian perspective. Remember, however, that the Board is reluctant to make any decisions without a general vote of the membership. It is also very, very

reluctant to condemn any members of the APA or silence research.

Research

Indeterminate

Association Business /DSM-III

Your presidential address in 1972 should cover your views on the nature of psychology put forward in your 1974 paper cited below. Be careful to draw contrasts between your approach and Miller's.

Social responsibilities of social scientists

Indeterminate

Assignment 22.1 (Bandura) presidential address in 1972 should cover your views on the nature of psychology

Definition of 'mental illness' and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a behaviorist interpretation of mental disorder /illness.

Fission: stay with the APA. Don't follow your fellow behaviorists.

22.3 Must Read

Bandura, A. (1965). Vicarious processes: A case of no-trial learning. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 1–55). New York: Academic Press.

Bandura, A. (1969). Social-learning theory of identificatory processes. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 213–262). Chicago: Rand McNally.

Bandura, A. (1971). Vicarious and self-reinforcement processes. In R. Glaser (Ed.), *The nature of reinforcement* (pp. 228–278). New York: Academic Press. [Classic]

Bandura, A. (1974). Behavior theory and the models of man. *American Psychologist*, 29, 859–869.

23 Harry Harlow, PhD

23.1 Your Biography

You are Harry Frederick Harlow. You were born in Iowa, but began your academic career at Reed College in Portland, OR. You were one of four boys in tightly-nit extended family. You transferred to Stanford in 1923, where you stayed until you finished your Ph.D under the supervision of C.P. Stone in 1930. Your dissertation work was on rat behavior, which soured you forever on rat research. During this time, you became keenly interested in the history of psychology- a side passion you share with George Miller.

Your first job after graduate school was at the University of Wisconsin, where you still teach. Your introductory class is something of legend on campus, where you are renowned for your wit and gentle teasing of students.

In 1949, you were appointed the chief psychologist of the US Army, a post that you held until 1951. During that time, you were tasked with creating guidelines for the army's use of psychological research methods. Your work lead to the establishment of the Human Resources Research Office (HumRRO), which still exists today.

Shortly after your arrival at Wisconsin, you met an brilliant young psychology student named Clara Mears, who suggested that the Madison Zoo might be able to provide monkeys for research—which were far more interesting than rats. This little suggestion ended not only in your establishing the primate research lab, which later combined with the Wisconsin Regional Primate Lab in 1964, but also in your marriage to Clara. She sacrificed her degree in psychology for your marriage, as the University would not allow a husband to oversee a wife's dissertation. You were married to Clara for 13 years, at which point you were divorced and quickly remarried to a colleague in the department at Wisconsin. Clara remarried as well.

You originally intended to study the central nervous system of the rhesus monkeys, but found that there were no standardized measures that could be used to gage their perceptual and learning systems. In developing those measures, you discovered a great deal about primate

learning systems—far, far more than you probably ever would have about the central nervous system. In your terms, you discovered the ‘learning set’—a predisposition to learn according to a set process.

Faced with a simple perceptual discrimination problem monkeys initially started with the traditional trial-and-error method. But at some point, they seemed to catch onto a general principle that would allow them to skip over much of that tedious work. Ultimately, you theorize, they begin to display “insight,” which allows one-trial learning. This arc of development contrasts with the traditional behaviorist approach associated with Clark Hull and the ‘Yale’ school of behaviorism. During much of the 1940s and into the 1950s, you were engaged in a long confrontation with that school of thought. By the end, however, you emerged ‘victorious,’ having forced psychology to admit rule-governed abstraction and “insight.”

Today, you are most famous for your theories on ‘love’ – specifically those that relate to your experiments with baby rhesus monkey’s attachment to their mothers.

Your research in this area started as a lucky accident. You wanted to start a self-sustaining breeding colony of monkeys, but the first generation, who had been caught in the wild, were diseased. When babies were born, you immediately separated them from their mothers and reared them in a sterile environment. You found, however, that while the babies developed physically, they were emotionally disturbed. As adults, for example, they would not mate. One day, you observed that the babies clung to the soft blankets that were in their environment, and even seemed to stroke their diapers. This observation inspired your most famous experiment:

After separating baby rhesus monkeys from their mothers, you provided them with either soft, ‘cuddly’ surrogate ‘mothers’ or wire ‘mothers’. The babies preferred the soft, cuddly mothers even when food was supplied entirely by the wire mothers. When babies were allowed access only to the wire mothers, they developed abnormally.

Importance of contact as basic human drive, expanding Hull’s theory.

During the 1960s, you continued to research love – distinguishing five kinds of love: maternal love for the child, infant love for the mother, age-mate or peer love, adult heterosexual love, and paternal love for the child. You believe that infant love for the mother was a necessary precursor for age-mate or peer love, and both were required for adult heterosexual love. Rhesus monkey infant raised for six months in isolation showed an inability to engage in normal adult love-relationships, and they exhibited behaviors associated with schizophrenics and autistics: such as self-rocking and huddling. You further found that ‘therapy’ could help cure these isolated monkeys,

but only if the ‘therapist’ monkey who was used to reestablish physical contact with the ‘patient’ monkey was at the age of starting his own peer relationships and was much younger and less aggressive than the ‘patient.’

23.2 Game Objectives

You were president of the APA in 1970, so you no longer can run for president. But you certainly can serve on various committees. Your research on monkeys makes you keenly aware of issues in the ethics of experimentation, so the ethics committee is a good choice. You are also a student of history of psychology and passionate about research design, so the grants committee might be a good choice. Your main goal in the game should be to encourage experiments that will continue the development of behaviorism and block any movements made by the cognitivists to redefine the nature of psychology as anything other than the study of observable behavior.

Specific Assignment

Initial Committee Membership Former President when the game begins

Committee 23.1 (Harlow) Member of Board of Directors as ‘Former President’ in 1971.

Demedicalization

Indeterminate

Research

Submit a proposal to give a talk in 1972 on your research on the development of heterosexual relationships in the rhesus monkey, experimental inventions that you’ve shown corrupt the normal development, and the therapeutic interventions that may correct that corruption, and how that relates to Freud’s theory of psycho-sexual development (you’ll need **Harlow:1975bm**).

Association Business /DSM-III

You support the theoretically-neutral and evidence-based approach to taxonomy advocated by Spitzer, but are keen to make sure that behaviorist therapies such as ‘aversion therapies’ are not ruled out by the classification.

Defend the use of behavioral techniques – especially aversion therapy – in treating patients. In 1974, there will probably be a proposal to deem it immoral. You don’t necessarily want to defend the treat-

ment of homosexuality per se, but just to make sure that behavioristic treatment isn't restricted because of some blanket statements.

Social responsibilities of social scientists

Indeterminate

Assignment 23.1 (Harlow) Present your research on heterosexual relationships in the rhesus monkey, preferably in 1972.

Definition of 'mental illness' and fission of the APA

Pass a behaviorist interpretation of mental disorder /illness. split to the Society for the Experimental Analysis of Behavior.

23.3 Must Read

Harlow, H. (1958) "The nature of love" American Psychologist 13(12) 673–685 On Psych Classics: <http://psychclassics.yorku.ca/Harlow/love.htm>.

Harlow, Harry F. (1975). "Lust, latency and love: Simian secrets of successful sex." Journal of Sex Research 11(2): 79–90. available on jstor.org

Secondary Sources

Sears, R. (1982) "Harry Frederick Harlow (1905–1981)" American Psychologist 37(11) 1280–1281

Further reading

Harlow, H. F. (1956). Learning set and error factor theory. In S. Koch, ed., Psychology: A study of a science, Vol. 2, pp. 492–537. New York: McGraw-Hill.

Harlow, H.F. & Suomi, S. J. (1971) Social Recovery by Isolation-Reared Monkeys Proceedings of the National Academy of Sciences of the United States of America, Vol. 68, No. 7 (Jul., 1971), pp. 1534–1538

Harlow, H. F., Gluck, J. P., and Suomi, S. J. (1972). Generalization of behavioral data between nonhuman and human animals. American Psychologist 27, 709–716.

24 Evelyn Hooker, PhD

24.1 Your Biography

You are Evelyn Hooker, legend in the field of the psychology of human sexuality. In 1991, The APA publicly recognizing you with an award for Distinguished Contribution in the Public Interest from the American Psychological Association. Your acceptance speech detailed your most famous study, and how it came to be. This is a rare case for a 'Reacting' character, so please excuse us as we quote it in length. It is far more detailed than we would ever be able to piece together from other sources.

When you received the APA's award for Distinguished Contribution in the Public Interest in August 1992, you made a speech, which covered this part of the history of the APA. A long excerpt from that speech is included here for your character development. Do not quote or even paraphrase this speech in the course of the game - this is here are a primary source for you to understand your character's biography and experiences during this period.

In 1953, when I applied for a six-month grant from the National Institute of Mental Health (NIMH) to study nonpatient, nonprisoner homosexuals, I had no intention of starting a new career. What I did not fully anticipate was the wealth of research demands and opportunities, the lively interest and cooperation of the gay community, and the continued interest and offers of assistance from the Grants Division of NIMH.

After I applied for the NIMH grant, the late John Eberhart came to UCLA to spend a day with me. It was clear that he wanted to see what and who I was. It was the height of the McCarthy era: Communists and homosexuals were the objects of destructive witch hunts. At the end of the day, Dr. Eberhard said "We are prepared to make you the grant, but you may not receive it. Everyone is being investigated. If you don't receive it, you won't know why and we won't know why."

I can only assume that either I was not investigated or that it was a slipshod investigation. In either case, why? My husband was a very distinguished professor of English at UCLA. In every way, he presented the characteristics of traditional values, but he fought very hard against the University of California loyalty oath, as had I. If the FBI had dug more deeply into my history, they would have found a first husband

who drove an ambulance in the Spanish Civil War. If the question came to the FBI's attention at all, how did they interpret my interest in gay men? I will never know. If it was investigated, I did not know it.

Under the direction of Philip Sapir (who became chief of extramural grants when Dr. Eberhard left NIMH), I received a series of specific research grants until 1961, when I received a Research Career Award. During this time, Philip Sapir took a personal interest in my research, making the resources of his position available in incredible ways. For example, he invited me to give a lecture at NIMH especially for the research scientists, and afterward to spend three days in a seminar with a handpicked group of them. Because I worked alone, his moral, financial, and intellectual assistance became of the utmost importance. When I expressed my gratitude, he said that, in his position, he had general knowledge of many research projects and that it was very gratifying to know one in detail. It is highly probable that, without his interest and help, I would have stopped after the first major paper, and would not be here today.

The Role of Serendipity

As I reflect on the adverse conditions potentially threatening the successful pursuit of the goals of my research, I am impressed by the many serendipitous conditions that made the research possible. For example, a site visitor stressed the "fact" that members of the study committee would consider that I was working with psychopathology and that I must have a psychiatric consultant. With many reservations, I went to see the chair of the Psychiatry Department. When he asked about the research, I told him I was studying "normal male homosexuals." He rose from his chair and said, "What do you think you are doing? There is no such person." He then referred me to Frederic Worden, who had just come to the department. I let Dr. Worden read my application. He, then, turned to me and said, "I have never seen such persons, but I sure would like to." He became a valuable consultant.

A second perennially recurring situation was the demand of university officials that the research be conducted at the university. I resisted this demand because to have yielded would have meant the end. Not a single person would have come. The first absolute condition was secrecy and confidentiality. By great good fortune, our home was a very spacious estate of an acre of ground with a garden study separate from the house. It was there that the research was conducted. Once a person opened the garden gate, he was invisible to the neighbors. Without this superb place in which to conduct the research, I would never have attempted it.

The Imperative of Confidentiality

It will be obvious to you that the absolute sine qua non of research into behavior thought to be "a sin, a crime, and a disease" is confidentiality. Before I began the research, my friend Christopher Isherwood lived in the study for a while. If I asked him for a favor, he would often reply, "Yes, if you will keep me out of Norwalk." Norwalk is a California mental institution. The triple stigma was never far from the minds of the men whom I came to know nor was it far from mine.

The ramifications of confidentiality in this project were very extensive. A young gay man recently asked, "How did they know they could trust you?" The answer is, I don't know. Every testing and life history session was tape recorded. I assured each person that only my secretary would listen to them and after transcribing them would erase the tapes. Did they believe me? Yes, apparently so. One man who was nationally known by his books called me long distance at frequent intervals to ask whether his tapes had been erased.

One of my objectives was to understand each life as fully as possible, and thus to keep all of the personally identifying data for each man. This meant, in my view, that it would be impossible to share this highly confidential material with a co-worker. Building confidentiality with the gay community at that time was not an easy task. I could not lightly, if at all, share these confidences with another. Informal applications to be a coinvestigator were numerous, but I continued to work alone until the data gathering phase was complete.

Working alone in such a stress- and trauma-laden field inevitably entails high psychological costs. Without a colleague with whom to share the sympathetic knowledge of human suffering, sometimes one's own vicarious suffering becomes almost unbearable. This was especially true for me after my husband's death. I hasten to make clear that, when I characterize conducting research with gay men as stressful, I am only referring to the McCarthy era when the penalties were barbaric.

Even then, had I chosen just to remain in my study and let the gay men come to me, perhaps the stress would have been less. I could not settle for less. Instead, I accepted invitations to gay parties, gay organizations, gay after-hours clubs, and gay bars. I was convinced that, because of the secrecy imposed on gay men whose occupations and very lives were at risk if their identity became known, it was essential to know and understand everything I could about the gay social milieu that they created.

How it came to be known as the "gay world" remains a mystery to me. As I know it, however, the term in its generic meaning is, in part, justified. Camping, for example, is a dramatic form of behavior in both its high and low comic and tragic aspects. Perhaps an illustration will convey something of both. One evening at a dinner party attended by a number of distinguished writers and myself as the only woman, attention turned to how the guests could enhance my knowledge of gay institutions, for example, gay baths. My friend, Christopher Isherwood, then began a very dramatic story about how he would take me to the Crystal Baths on the Santa Monica beach, and what we would see, beginning on Level 1 – nude men in various sexual activities – complete with hilarious descriptions of the activities on each of the various levels until we reached the top. And then, he said, I would be killed, because no woman is allowed to know the secrets of the gay world and live.

The issue of confidentiality became acute in what I shall refer to later as "the Year of the Trial." Meanwhile, my adversarial position vis-a-vis the Los Angeles police force needs some clarification. I was pressured by a psychiatrist friend to seek an appointment with the chief of police. My friend said, "Of course he knows about your research activities and

it would be helpful if he met you in person." How would the chief of police know about my research activities? In an invited paper entitled "The Gay Community," given in Copenhagen in 1961, I have described my research activities in gay bars. The police would have been aware of these activities, in part because I was usually the only woman in a bar. I hasten to add that I always went to a gay bar with a gay friend.

I was advised by my psychiatrist friend not to go alone for the appointment with the chief. Why? Because I was a woman. Dr. Worden accompanied me, biting his nails and saying that he had watched too many police films. Chief Parker did not understand why I was doing the research, "because a man from Pasadena proved it was all glandular." When I objected, he said "Well, it's like the smog. It doesn't matter how it got here. We just have to deal with it." He then wanted to introduce me to the Central Vice detail. I avoided that because I knew that if I did, the news would be all over the gay community within hours. I asked whether the police would ever try to subpoena my confidential files. "No," he replied, "If you should ever have information about a homosexual murder, I hope you would voluntarily give us the information."

I turn now to the Year of the Trial, 1961. Briefly, the facts are that five people were arrested and charged with conspiracy to obtain a criminal abortion. The five were two psychiatrists, an obstetrician, a young man, and myself. I had referred the young man (a friend) and his girlfriend to one psychiatrist, who had recommended a therapeutic abortion and who had sent the pair to a second psychiatrist, who made the same recommendation and sent them to an obstetrician. He performed the surgery in his office without a nurse present and sent the woman home. Complications developed. Her boyfriend insisted on hospitalization. Her father moved her to another hospital and declared charges to the police.

When two men, identifying themselves as with the state board of quality assurance visited me in my university office, I became alarmed when they asked "On what do you do research?" and "Do you accept fees for referrals?" It did not occur to me that I was personally in danger. However, waves of anxiety swept over me as I thought about the perils to my research data riddled with identifying names, places, and dates. I knew, as did many, of the unscrupulous surveillance practices of the Los Angeles Police Department at that time. My secretary and I spent the better part of the year in removing identifying data from the records. A judge, six months after the grand jury indictment, ruled that the jury had insufficient grounds to indict me. The anxiety did not diminish until both psychiatrists and the young man were declared innocent. Many of my friends believe that the police acted in my case only because of my research on homosexuality. It cannot be proved, but I believe it is so.

Incidentally, I carried a letter signed by the Chancellor at UCLA which identified me in case my activities were ever brought to the attention of law enforcement authorities. I never needed it, and felt I never would unless the university was involved.

The NIMH Task Force

In 1969, I was called by Stanley Yolles, then director of NIMH, asking me to come to Washington and "tell him what we ought to be doing

about homosexuality." He added that "we want to sweep it out from beneath the rug." I suggested that we needed a group of thoughtful people who were social scientists or were in law, religion, or psychiatry and who could bring their knowledge to bear on this question. The director replied that if I would give him a list, he would make the appointments for a "blue ribbon task force." I looked forward to it with high expectations.

The agenda that I proposed was both a comprehensive outline of research and of social policy issues, including the possible endorsement of a model penal code and the establishment at NIMH of a center for the study of sexuality. Many members of the task force said at the outset that they knew nothing about homosexuality. I thought that should not exclude them because they were needed to bring social science to bear on the issues. The discussions were lively and gave promise of a good final report, with two exceptions.

The stumbling blocks were viewing homosexuality as not necessarily synonymous with psychopathology, and endorsing a model penal code in which homosexuality was no longer viewed as a crime. Thus, three task force members wrote dissenting opinions on the basis that (a) NIMH was not a policymaking, but solely a research institution, and (b) that there were not enough data to support the "normal" position. Within three years, however, the American Psychiatric Association voted to delete homosexuality from its diagnostic handbook, and the American Psychological Association (APA) followed.

Our task force report was not published for two years, an indication of what some officials thought of it. Judd Marmor, a distinguished and indispensable member of the task force, when asked why we did not accomplish more, said that one possible reason might be that I was too optimistic. That may be true. After all, in 1963, Dr. Marmor asked me to write a chapter for his first book on homosexuality, titled *Inversion*. He said that I must write it, "because you are the only person to hold your point of view."

Highlights and Satisfactions

I have spoken of some of the problems related to my research in the repressive milieu of the 1950s and 1960s. I would like now to mention some highlights of my satisfaction and delight.

First, can you imagine what it was like when I examined the results of the three judges of the adjustment ratings from the projective techniques? I knew the men for whom the ratings were made, and I was certain as a clinician that they were relatively free of psychopathology. But what would these superb clinicians find? You know now that the two groups, homosexuals and heterosexuals, did not differ in adjustment of psychopathology. When I saw that, I wept with joy. I knew that the psychiatrists would not accept it then. But sometime!

[cut, for the purposes of the game]

Another, earlier event was back in 1961, when I was invited to give a paper at the International Congress of Psychology. I learned that a young Norwegian, Finn Carling, was beginning a study of homosexuals and that it would be worth my while to see him. When I called him,

he said that he was just beginning and that it would not be worth my while. I persisted, and he agreed to meet me at the airport. "You will know me because I have a big dog," he said. And so he did. Friends told me he was a spastic. Don't ask me how he drove his car, because he had the use of two forefingers only. He said, "If you don't mind not talking about science for awhile, I will show you where I grew up." He pointed to a stream running through a meadow where his parents had put him, having been told he would never walk. But he did – at 15.

After we had tea, he turned to me and said, "I want you to know that I am on their side." I think I said, "Me too." And then he said an astonishing thing: "I am not only studying homosexuals, but I am studying refugees, because they teach me the meaning of movement. I am studying the blind, because they will teach me the meaning of sight, of vision. I am studying homosexuals, because they will teach me the meaning of love.

That was 30 years ago, but Finn Carling's radiant face, his enormous physical and psychological courage, and what he wanted to learn from gay and lesbian folk have never faded in intensity. In an age when the scourge of AIDS continues relentlessly, there are many images of love in the gay world. I have the conviction that without love, the gay world would perish.

In the summer of 1937, at the height of the Spanish Civil War, I was in London. I attended a Spanish Republican rally. It was at fever pitch, so to speak, and the crowd was demanding that Paul Robeson, that great man and great voice, sing the Spanish National Anthem. From time to time, he would say "I'm saving the best to the last." Finally, with sounds that seemed to come from the bowels of the earth, he sang the Spanish National Anthem.

I have one more event to note, and I have saved the most extraordinary to the Last. About four years ago, I received a letter from a trustee officer at a bank in Lincoln, Nebraska. In it he stated that Wayne Placek had designated me to select a committee to decide how the trust fund he was establishing should distribute funds for the purpose of research to increase "the general public's understanding of gay men and lesbians, and reduce the stress experienced by those people in this and future civilizations." I remember that I had interviewed Wayne Placek in the late 1950s, but nothing unusual came to mind. I did remember that, along with many others, he hated being gay because of society's treatment.

After a period of three years, the final settlement of the fund was announced – approximately a half million dollars! Through the valiant and imaginative work of Steve Morin and Douglas Kimmel, the money now is in the American Psychological Foundation, earmarked for research under the control of Dr. Morin and selected officers of Division 44, and the guidance of the Foundation.

(Full text available at http://psychology.ucdavis.edu/faculty_sites/rainbow/html/hooker_address.html)

Also, watch (if you can) "Changing our minds, the story of Evelyn Hooker": <http://www.imdb.com/title/tt0103938/>

24.2 Game Objectives

You were trained as a behaviorist, by Karl Muenzinger¹ and Robert Yerkes, who was a good friend of John Watson. Many of Watson's arguments draw from comparative psychology as a discipline. Muensinger's view, however, was more like Tolman's than Yerkes (see the 2.2 on page 25 in the gamebook). You are committed—as is your field—to the thesis that one can learn about the psychology of humans by studying the minds of animals. If the cognitivists are successful at getting the line between "man and brutes" reestablished, it may relegate your field to a psychological footnote. Defend behaviorism, in particular the thesis that there is no hard and fast line between humans and animals, from the attacks of the cognitivists.

You published a pivotal study on homosexuality in 1956 and 1957 that along with Kinsey's report, is usually credited with starting the movement to remove homosexuality from the DSM. Look up the study and read it carefully. You'll be expected to speak about its findings during the 1971 conference. You should also understand your opponent's position on this matter.

Freud mentions homosexuality a number of places in Introductory Lectures on Psychoanalysis, and it is crucially important that you study these carefully. Freud believes that sexual life of children, which is regarded at the time as 'normal' includes a number of activities that would later in life be viewed as 'perverse', including same-sex contact. In Freud's theory, heterosexuality develops with puberty in normal people. In 'inverts' or homosexuals, something goes wrong in this development. The object of ones' 'natural' desire—the genitals of the opposite sex—becomes transformed into parts of the body that represent those parts in the same sex. Thus, homosexuality is no different in psychological mechanism than a foot fetish or any other neurotic 'perversion' (see p. 376–384 of Introductory Lectures) Homosexuality is not a psychologically isolated condition. According to Freud:

"We are compelled, however, to regard the choice of an object of one's own sex as a divergence in erotic life which is of positively habitual occurrence, and we are learning more and more to ascribe an especially high importance to it." (p. 381)

In short, homosexuality is a kind of neurosis, yet it is not, itself, particularly worrying. The action itself is merely 'habitual,' and hence can be cured through standard habit-blocking therapy (Freud suggests that paranoia stops homosexuality on p. 381 of the Introductory Lectures). It is, however, invariably an indicator of deeper psychological problems, as the transference and substitution of the 'natural' object of sexual desire to a different object will cause neurosis. See Ch 26 of

¹ See Muenzinger, K. (1942). *Psychology: the science of behavior* Harper, New York. Muenzinger is the only President of the APA to hold BOTH an MD and a PhD. He often argued that *both* degrees were the best for a psychologist.

the Introductory Lectures, especially p. 530, for Freud's explanation of homosexuality as neurotic narcissism.

Your study, which sought to establish if homosexuals exhibited neurotic symptoms aside from their homosexuality, is a direct challenge to Freud's theory. The current advocates of the Freudian tradition in Homosexuality are C. Socarides and I. Bieber. Bieber's 1962 book Homosexuality presented the result of his 9-year study of 100 homosexual males. According to him, homosexuals males are those whose 'heterosexual instinct' is crippled in some way. Be ready to defend your study against criticisms from Socarides and Bieber.

Specific Assignment

Initial Committee Membership

That means it is your responsibility to coordinate with the other two members (Gebhard and Anastasi) to arrange the conference schedule for the second week of class. After that, consider running for the Board of Directors or President of the APA. 71: Washington DC, 72: Dallas.

Committee 24.1 (Hooker) initial member of the program committee, with your term expiring in 1972

Demedicalization

Your research is the strongest out there that homosexuals are not suffering from mental illness *other* than that caused by the medicalization of homosexuality.

Research

In 1972, there will probably be competing papers from Socrides & Bieber and Richard Green. Both of these papers will likely contain critiques or analyzes of your data. Be prepared to defend your study, or use it to critique others.

Association Business /DSM-III

In 1971, This talk should introduce the history of your research, and the data you have that shows that non-patient homosexuals are not mentally disordered. You might also make reference to the 1964 'Midtown Manhattan Study' (1964), which seems to show that mental health disturbances are more related to social-economic status than any other factor—in this case, it may be consistent with your findings that any perceived mental illness in gay men is the result of their ostracism from society, rather than the cause thereof.

In 1973, oppose the dissolution of the nomenclature committee on grounds that the proposed taskforce would give too much power to

Assignment 24.1 (Hooker) you are scheduled to give a talk entitled "The mental health of non-patient male homosexuals" during the panel session titled "Psychiatry: Friend or Foe to Homosexuals: A Dialogue" with John Fryer.

a single individual: Spitzer. The process of classifying mental illness needs to be open and transparent, and an elected committee would be more open and transparent than a taskforce.

Social responsibilities of social scientists

Your work has had a significant impact on society already, but you are, first and foremost, a scientist. You spoke out when you had collected data, not before.

Definition of ‘mental illness’ and fission of the APA

When, and if, the game reaches a point of trying to define mental illness, you must pass a behaviorist interpretation of mental disorder /illness.

24.3 Must Read

- Hooker, E. (1956). A preliminary analysis of group behavior of homosexuals. *Journal of Psychology*, 42, 217–225.
- Hooker, E. (1957). The adjustment of the male overt homosexual. *Journal of Projective Techniques*, 21, 18–31.
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- Hooker, E. (1961). Homosexuality: Summary of studies. In E. M. Duvall & S. M. Duvall (Eds.), *Sex ways in fact and faith*. New York: Association Press.
- Hooker, E. (1965). Male homosexuals and their worlds. In J. Marmor (Ed.), *Sexual inversion: The multiple roots of homosexuality* (pp. 83107). New York: Basic Books.
- Hooker, E. (1969). Parental relations and male homosexuality in patient and non-patient samples. *Journal of Consulting and Clinical Psychology*, 33, 140–142.

Secondary Sources

“E. Hooker, Ph. D.”, available at <http://psychology.ucdavis.edu/rainbow/html/hooker2.html>. The site contains links to a number of obituaries and remembrances.

Milar, K. S. (2011) “The Myth Buster: Evelyn Hooker’s Ground-breaking Research Exploded the notion that homosexuality was a mental illness, ultimately removing it from the DSM” *Time Capsule*, 42(2): p. 24

25 Cognitivist Overview

Cognitivist Psychology, and the affiliated disciplines that make up 'Cognitive Science': linguistics, computer science, philosophy and neuroscience, owe an intellectual and cultural debt to behaviorism. While many in the cognitivist community see themselves in the tradition of William James, John Dewey and the 'Chicago school,' most cognitivists were trained as behaviorists. They do not differ with behaviorists with respect to the metaphysical thesis that the mind is physical. They differ on the basic object of study of psychology: the cognitivists hold that psychology is the study of the mind, not just behavior.

Theoretically, cognitivism marries information theory of computer science to psychology and neurobiology. It sees mental states and processes as informational states and processes which are realized in the computational 'hardware' of the brain. Thus, a proper explanation of psychology should not only describe the behavior of the organism, it should also explain the informational algorithm that drives that behavior, and the neurobiological states that implement the algorithm.

You are neutral on the issue of the definition of mental illness, but be ready to oppose any definition that is clearly behaviorist or psychoanalytic in nature.

26 Noam Chomsky, PhD

26.1 Your Biography

You are Noam Chomsky, PhD Revolutionary in Linguistics, Professor of Linguistics and Philosophy, MIT.

After primary education at an experimental school of progressive education in Philadelphia, you enrolled at the University of Pennsylvania where you studied mathematics, philosophy and linguistics. In 1951, you moved to Harvard, where you stayed until 1955. Your masters thesis *The Logical Structure of Linguistic Theory* was published in 1955, the same year you were granted your PhD In Linguistics from University of Pennsylvania.

In the debate between cognitivists and behaviorists, you are the 800 pound gorilla. In your short career, you have revolutionized the entire discipline of linguistics, founded (with George Miller and Herbert Simon and Newell) the new interdisciplinary field of Cognitive Science, and become the intellectual spokesperson of the American left.

1) Revolution in Linguistics

Before Chomsky, linguistics was primarily descriptive and taxonomical. You see linguistics as a branch of cognitive psychology,¹ whose goal is to discover the mechanism that produces all and only grammatical sentences in a language. Your theory is complex, and you have changed it slightly over time, so this description should be read as highly introductory and superficial. As a student, you are strongly encouraged to read the primary sources below to get a sense of the complex issues herein.

Roughly then, you understand linguistics—the scientific study of language—as the study of the rules of grammar. In short:

“The person who has acquired knowledge of a language has internalized a system or rules that relate sound and meaning in a particular way. The linguist constructing a grammar of a language is proposing a hypothesis concerning this internalized system. The linguist’s hypothesis, if presented with sufficient explicitness and precision, will have certain empirical consequences with regard to the form of utterances and their interpretations by the native speaker.” (1968, p. 23)

¹ See, e.g. Chomsky (1968), p. 1

Harkening back to the Port-Royalists of the 17th and 18th century, you hold that a system of propositions that expresses the meaning of a sentence is produced “by the mind as the sentence is realized as a physical signal, the two being related by certain formal operations that, in current terminology, we may call grammatical transformations.” In short, the meaning of a sentence is symbolically related to the physical structure of symbols in the brain. The task of cognitive scientist is to understand these internal relations through the positing of informational systems.

You go on to distinguish between *surface structures* and *deep structures*. *Surface structures* are structures of the language spoken, such as ‘subject and predicate’. *Deep structures* are structures of the underlying meaning. The sentences ‘Bob is to the right of John’ and ‘John is to the left of Bob’ have different surface structures but the same deep structure. On the other hand, some syntactic (grammatical) structures are insufficient to determine meaning. For example include ‘I like her cooking’, could mean ‘I like what she cooks, in general’ and ‘I like her when she cooks,’ or even ‘I like it when someone is actively cooking her.’ Three deep structures, one surface structure.

To provide an adequate theory of a language, one must specify the complete ‘grammar’ of that language. Doing so would require three parts: (1) a syntactical component that would generates sentences in that language, revealing the internal structure of the infinite set of possible sentences in the langauge (2) a phonological component that describes how the language sounds, and how it relates to the syntactical component, and (3) a semantical component that describes how a language means. These are represented in Illustration 1. It is the task of the linguist to specify the rules by which the transitions take place.

2) Contributions to Cognitive Science

In 1959, you published the famous “Review of Skinner’s Verbal Behavior.” You were born in 1928 and received Ph.D in 1955, when you became an assistant professor of linguistics at MIT. This review was written, then, when you were an untenured 31 year old. It is included as an appendix to the gamebook. This review is not only hugely influential, it is hugely controversial. Many people have accused you of not understanding behaviorism, misquoting Skinner, and various other academic abuses.²

Your basic argument is two-fold, first that Skinner’s terminology is hopelessly confused, and second, that behaviorism is unable to explain observable facts about language acquisition. It is the second of these—which is an empirical claim, after all—that has been the most persuasive. It is important, however, that you master both.

There is another important point in your work, but it doesn’t ap-

² See, e.g. K MacCorquodale (1970) “On Chomsky’s Review of Skinner’s Verbal Behavior” Journal of the Experimental Analysis of Behavior 13: 83–99 and Adelman, B. A. (2007) “An Under-discussed Aspect of Chomsky (1959)” Analysis Verbal Behavior 23(1): 29–34.

pear in the review. Consider Skinner's contention that science cannot take into account 'inner states.' You argue:

It is hardly possible to argue that science has advanced only by repudiating hypotheses concerning "internal states." By rejecting the study of postulated inner states Skinner reveals his hostility not only to "the nature of scientific inquiry" but even to common engineering practice. For example, Skinner believes that "information theory" ran into a "problem when an inner 'processor' had to be invented to convert input into output" (p. 18). This is a strange way of describing the matter. Suppose that an engineer is presented with a device whose functioning he does not understand, and suppose that through experiment he can obtain information about input-output relations of this device. He would not hesitate, if rational, to construct a theory of the internal states of the device and to test it against further evidence. He might also go on to try to determine the mechanisms that function in the ways described by his theory of internal states, and the physical principles at work – leaving open the possibility that new and unknown physical principles might be involved, a particularly important matter in the study of behavior of organisms. His theory of internal states might well be the only useful guide to further research. By objecting, *a priori*, to this research strategy, Skinner merely condemns his strange variety of "behavioral science" to continued ineptitude. (Chomsky, 1971).

3) Politics

You have always been a dissident. You strongly object to the Vietnam war, and have always been a vocal opponent of American Foreign Policy that you see as 'imperialistic.' You have been called a 'socialist anarchist' in a number of circles, and the name is not entirely wrong. You believe that any state that imposes its will on people needs to justify that imposition, and the justifications you have seen are lacking.

You have an affiliation with the Students for a Democratic Society – the SDS. The SDS is a national network of radical students opposed to the Vietnam war, capitalism and the like. While some have described you as the 'faculty advisor' for MIT's branch of the SDS, the truth is that the SDS would not admit of such hierarchical arrangements. But perhaps it is better to just use the term, rather than have to explain to everyone that there were no such 'faculty advisors'.

The SDS are radical, but generally peaceful. They did, however, come to the aid of the Stonewall patrons during the riots in Greenwich Village in 1969 (see 'History of Gay Rights Movement' in the game book). You fully support those actions.

In the summer of 1969, the SDS split amidst a conflict between the language of the 'old-left' Marxist-Leninist Weathermen underground and the 'new left' SDS-Workers Alliance. The Weathermen underground radicalized after the split, and following the murder of Black Panther leader Fred Hampton, engaged in bombings and other acts of terrorism. You were in no way affiliated with the Weathermen. In fact,

their adoption of language from the brutal regimes of Lenin, Stalin and Mao is antithetical to your entire political agenda. We mention it here simply because your political opponents often seek to tar you with ‘guilt by association’ attacks, holding you responsible for the actions of the Weathermen.

You are, however, willing to work with many other advocates for human and civil rights, including Judd Marmor, Kenneth Clark and others.

Game Objectives

Remember that in addition to being one of the intellectual heavy-weights of your era, you are a political radical, affiliated with the SDS: Students for a Democratic Society. The SDS came to the aid of the Stonewall rioters in 1969. You are an ardent supporter of the movement to declassify homosexuality, as well as being generally concerned about the use of psychiatric and psychological concepts to control people.

Oppose and criticize Behaviorism when and wherever you can. While you must carefully read your review of ‘Verbal Behavior’ that is contained in the appendix of the gamebook, you should also look at your 1971 paper ‘The Case Against B.F. Skinner’ available online (see below). You are nothing if not polemic.

Your final task in this game is to engage the Piaget in a public discussion or debate of the concept of ‘innateness’ in psychology, and the acceptability of positing innate ideas in a scientific enterprise. You should propose the event to the conference committee in time for it to happen in 1975.

As you will remember, the problem of innate ideas strikes the very core of the idea of the scientific study of the mind: the empirical hypothesis unifies the tradition as a whole, with the exception of Jungians. Moreover, the debate on homosexuality often turns, in the public mind at the least, on whether sexuality is innate (an ‘orientation’) or not (a ‘preference’). The kind of innateness you and Piaget are discussing is probably not the same, as you both agree that the structure of thought that is innate, not the content. This should be made clear in your public discussion.

You posits that there is an innate system of grammars that are common to all humans, as a function of our biology. Piaget agrees there is a ‘fixed nucleus’ of cognition that is innate, but only commits to the thesis that “the functioning of intelligence alone is hereditary.” The actual debate is recorded in Piatelli-Palmarini’s 1980 book, which you should review during the course of the game.

Specific Assignment

Initial Committee Membership No committee memberships at the beginning, but eligible for any.

Committee 26.1 (Chomsky) *No committee memberships at the beginning, but eligible for any.*

Demedicalization

Indeterminate

Research

Indeterminate

Association Business /DSM-III

Indeterminate

Social responsibilities of social scientists

Organize and participate on a symposium and J. Marmor and K. Clark on the duties of academics with respect to social activism in 1974. You should articulate the views contained in your 1967 paper, as well as your criticisms of behaviorism contained in your 1971.

Oppose the passing of the 'Leona Tyler principle', which states:

As citizens, members of the APA have the right to advocate for any cause through the myriad of political advocacy organizations, but when psychologists and psychiatrists speak for the profession through APA public stances and proclamations, it should be from science and professional experience.

On occasion psychiatrists are asked for an opinion about an individual who is in the light of public attention or who has disclosed information about himself/herself through public media. In such circumstances, a psychiatrist may share with the public his or her expertise about psychiatric issues in general. However, it is unethical for a psychiatrist to offer a professional opinion unless he or she has conducted an examination and has been granted proper authorization for such a statement.

Assignment 26.1 (Chomsky) *Prepare a paper on the concept of innateness in cognitive science, paying close attention to how your view differs from the behaviorists (who believe nothing is innate), the psychoanalysis and the older views of Jean Piaget. Organize a symposium with Piaget for 1975.*

Definition of 'mental illness' and fission of the APA

Found the Cognitive Science Society

You are neutral on the issue of the definition of mental illness, but be ready to oppose any definition that is clearly behaviorist or psychoanalytic in nature.

26.2 Must Read

[Chomsky makes many of his papers available online at: <http://www.chomsky.info/articles.htm>]

Chomsky, N. (1959). "Review of Skinner's Verbal Behaviour" Language 35: 26–58. Electronic copy of 'review' with preface: <http://cogprints.org/1148/0/chomsky.htm>

Chomsky, N. (1967). "Recent Contributions to the Theory of Innate Ideas" Synthese 17: 2–11.

Chomsky, N. (1967). "The Responsibility of Intellectuals" The New York Review of Books, Feb 23, 1967. Available at <http://www.chomsky.info/articles/19670223.htm>

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Piatelli-Palmarini, M. (Ed.) (1980). Language and Learning: The Debate between Jean Piaget and Noam Chomsky, London: Routledge & Kegan Paul . Reviewed at: <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=5843312>

Further Work

Chomsky, N. (1975). The Logical Structure of Linguistic Theory (Chicago, 1975 - originally appeared in manuscript form in 1955)

Chomsky, N. (1957). Syntactic Structures Mouton & Co, The Hague.

Chomsky, N. (1959). "On certain Formal Properties of Grammars" Information and Control 2: 137 - 167. Current Issues in Linguistic Theory The Hague, 1964

Chomsky, N. (1965) Aspects of the Theory of Syntax Cambridge, Mass., 1965

Chomsky, N. (1966). Cartesian Linguistics New York, 1966

Secondary Sources

Searle, J. (1972) "Chomsky's Revolution in Linguistics" New York Review of Books, June 29, 1972. available at <http://www.chomsky.info/onchomsky/19720629.htm>

Chomsky, N., interviewed by Gliedman, J. (1983). "Thinks No Amount of Learning Can Teach" Omni 6:11. Available at <http://www.chomsky.info/interviews/198311-.htm>

R. H. Robins, A Short History of Linguistics (Indiana University Press, 1967), p. 239.

27 David Marr, Graduate Student

27.1 Your Biography

Young neuroscientist from Cambridge. In 1971, you haven't even finished your dissertation, which proposes a model of the function of the brain with respect to vision. You come to the APA primarily because of your interest in the work of Miller and Chomsky. You think of the brain as essentially an information-processing device, and you know that Miller and Chomsky both got their start working in information theory during WWII.

You were born in Essex, England, and educated at the private, prestigious Rugby School. You went to Trinity College, Cambridge on 1 October 1963, where you studied Mathematics for both a BS and an MS. You became interested neuroscience and started a PhD under the direction of Giles Brindley. You are currently working on your Dissertation in the physiology of vision. You've only published three papers at this point, but they have been influential.

You treat the brain as an information processing system. You put forth (in concert with Tomaso Poggio) the idea that one must understand information processing systems at three distinct, complementary levels of analysis. This idea is known in cognitive science as Marr's Tri-Level Hypothesis:

- computational level: what does the system do (e.g.: what problems does it solve or overcome) and, equally importantly, why does it do these things
- algorithmic/representational level: how does the system do what it does, specifically, what representations does it use and what processes does it employ to build and manipulate the representations
- implementational level: how is the system physically realized (in the case of biological vision, what neural structures and neuronal activities implement the visual system)

27.2 Game Objectives

Articulate your theory of levels of explanation, and its sympathetic relationship to Chomsky and Miller's metatheoretical positions with respect to explanation in linguistics and psychology respectively. This should be in the form of a paper in 1975.

Specific Assignment

Initial Committee Membership No initial committee memberships, but eligible for any.

Committee 27.1 (Marr) No initial committee memberships, but eligible for any.

Demedicalization

Indeterminate

Research

Support, if necessary, Miller's advocacy for the 'Mental Rotation' task in 1971.

Association Business /DSM-III

Indeterminate

Social responsibilities of social scientists

Indeterminate

Assignment 27.1 (Marr) Present a paper on the levels of explanation in cognitive psychology (1975)

Definition of 'mental illness' and fission of the APA

You are neutral on **the issue of the definition of mental illness**, but be ready to oppose any definition that is clearly behaviorist or psychoanalytic in nature.

Fission: Join Miller and Chomsky's Cognitive Science Society

27.3 Must Read

Marr, D. (1969). "A theory of cerebellar cortex." *J. Physiol.*, 202:437–470.

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Marr, D. (1971). "Simple memory: a theory for archicortex." *Phil. Trans. Royal Soc. London*, 262:23–81.

Marr, D. (1982). *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information* MIT Press (esp. Ch 1)

Secondary Sources

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28 George Miller, PhD

28.1 Your Biography

You are George Miller, PhD, Professor of Psychology at MIT, founder of cognitive psychology and (with Noam Chomsky (MIT-Linguistics), Herbert Simon and Newell (Carnegie Mellon –Computer Science)) cognitive science.

You were born in 1920 in Charleston, West Virginia, where you lived until you enrolled in George Washington University in 1937. You transferred to the University of Alabama in 1938, where you completed your BA and were appointed Instructor of Psychology in 1941. You started Graduate school at Harvard in 1943.

While at Harvard, you joined the Psycho-Acoustical Laboratory where you worked on speech communication over static on radios. At that time you met and befriended a brilliant young linguist named Noam Chomsky.

You were elected to the position of Vice President of the APA in 1970, and take the role of President for the meeting of the APA in 1971, the first year of game play. You were 50 at the time of your election, which is young by professional standards.

You made your research ‘name’ with your famous paper “The magic number seven plus or minus two” (Miller, 1956). It is a must-read for all psychologists today. In 1960, you published *Plans and the structure of behavior*, which sets out your vision of psychology as a cognitive science (Miller, 1960). In fact, you founded the Center for Cognitive Studies at Harvard in 1960.

You are also a student of the history of Psychology. In 1958, you were approached by the historian of Psychology E.G. Boring, whose tomes *A History of Experimental Psychology* and *Sensation and Perception in the History of Experimental Psychology* adorn the desks of many psychologists and philosophers. You were brought to the project by Boring himself, who had been scheduled to produce an update to his histories, but was unable to do so. At the time, you had been planning a new set of introductory psych courses at Harvard at the time, so you thought that this might be an opportunity for sympathetic research.

You took a leave of absence for the academic year 1958–1959 and spent the time at the Center for Advanced Study in Behavioral Sciences at Stanford. When you returned to Harvard, you worked with your colleague Jerome S. Bruner to create an introductory course titled “Psychological Conceptions of Man.” By 1961, you had finished the book which was published as *Psychology: The Science of Mentality* (Miller, 1962).

28.2 *Game Objectives*

Promote your vision of cognitive psychology as an alternative to behaviorism. You should actively work to funnel funding to projects that attempt to make inferences about underlying mental mechanisms, and away from those that deny the existence of such mechanisms (i.e. radical behaviorists).

As a student of the history of psychology, you are also very keen to place yourself in the narrative arc of psychology –which means that you will keep a close eye on those who are characterizing historical figures in inaccurate ways, or ignoring historical achievements that are often forgotten. Both the behaviorists and the psychoanalysts have a tendency to dismiss aspects of the history of psychology as ‘non-scientific.’ You are not so sure.

There is much in the work done by early experimentalists like William James that anticipates your work. And while you’re wary of being labeled an ‘introspectivist’ and dismissed as a neo-Wundtian,¹ it is important to point out that cognitivism has historical antecedents, and it may be behaviorism that is the historical anomaly. Watson and Pavlov are clearly important psychologists, but the history of psychology has not always been behavioristic, and you are keen to ensure that it is not portrayed as such.

You are neutral on the issue of the definition of mental illness, but be ready to oppose any definition that is clearly behaviorist or psychoanalytic in nature.

¹ See the history of the definitions of ‘psychology’ in the gamebook.

28.3 *Game Strategy*

Your position as first president gives you great power, but also great responsibility. Your first speech sets the tone of the entire game, not just the first session. So while there will be a great temptation to spend your time beating up behaviorism and promoting cognitivism, you should work hard to reconcile the warring factions. You are the first president from the cognitivist side – the behaviorists are worried that your election signifies a massive shift in the kind of research that will be valued and funded. You need to allay those worries, and work for

understanding of the mind, not petty disciplinary politics.

Much can be done towards this end by maintaining a good, highly visible working relationship with your elected successor Anthony Bandura. Remember that like him, you were 'raised' a behaviorist. The people in that faction are your friends and colleagues. What's more, some commentators have pointed out that Bandura's theory of 'social learning' in the bobo doll experiment can be interpreted to support a cognitivist position, rather than a behaviorist one. If you changed your mind, perhaps Bandura can as well? The same holds for Evelyn Hooker, who was schooled in the 'Tolman' tradition of behaviorism.

Specific Assignment

Initial Committee Membership

Initial President of the APA.

Committee 28.1 (Miller) Member of the Board of Directors as President of the APA in 1971

Demedicalization

When Bieber and Socarides submit their report on sexual deviation in 1972, you should reject it as assuming too strict a Freudian perspective.

Research

In 1971, the gamemaster will introduce a 'mental rotation' experiment based in Shepard and Metzler 1971. You should be prepared to present the data – if your class is using the online psychology laboratory, report your classes' data. If not, report the data from the original.

Association Business /DSM-III

Look up Miller's actual presidential speech (Miller, 1969). You'll notice that it is actually not about the conflict between behaviorism and cognitivism. It is about what the psychological community can agree upon, not about what you disagree. Take a cue from the actual history here, and follow in his lead.

Assignment 28.1 (Miller) .You will open the game with a presidential address based on George Miller's actual speech "Psychology as a means of promoting human welfare."

Social responsibilities of social scientists

Advocate for the role of psychology in social issues, supporting both Chomsky and others in their efforts.

Definition of 'mental illness' and fission of the APA

Fission: Found the Cognitive Science Society with Noam Chomsky and David Marr (if he is a character).

Must Read

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81–97.

Miller, G. A. (1960). *Plans and the structure of behavior*. New York,: Holt.

Miller, G. A. (1962). *Psychology, the science of mental life* ([1st ed.]). New York,: Harper & Row.

Miller, G. A. (1969). Psychology as a means of promoting human welfare. *American Psychologist*, 24(12), 1063–1075.

Shepard, R. N. & Metzler, J. (1971) "Mental Rotation of Three-Dimensional Objects" *Science* 171(3972) p. 701–703