On Reading Freud

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Introduction[1]

Erich Fromm once remarked, in a seminar I attended at the Washington School of Psychiatry approximately 30 years ago, that Freud and Marx had this in common: both were the indispensable starting points for students of their respective subject matters, although practically everything they said was wrong. Fresh from my own psychoanalysis and fired with enthusiasm as I was for Freud's work, I greeted this judgment with incredulity, even scorn; but as the decades have taken me deeper into the repeated study of Freud's writings, I have begun to feel that Fromm's statement was indeed worth remembering. In its dramatic hyperbole, it was itself a very Freudian proposition, as I shall try to demonstrate below, making a point the validity of which could be appreciated if one saw its vehicle as rhetoric rather than as scientific weighing of evidence.

Yes, much of what Freud had to say is more or less false unless read sympathetically—that is, not, with the desire to find him right at all costs, but to learn from him. He is vulnerable to almost any diligent critic who wants to find him in error, and he has never lacked for that kind of antagonist though many of them have been so heavy-handed and obviously biased as to defeat their own destructive purpose. Major figures in other sciences who were Freud's contemporaries are comparably vulnerable, of course. It would be no

[1] Parts of the text have been adapted, with permission of the publishers, from previously published papers (Holt. 1963, 1965b. 1968, 1972). I am grateful to Aldine Publishing Co.. the American Image, and the Macmillan Co. for their kind cooperation.

trick for a pathologist to find many statements in the writings of Rudolf Virchow that are false by contemporary standards, or for a physiologist to do a hatchet job on Claude Bernard; but in other sciences that kind of hostile evaluation of the great historical figures is not common, because it is taken for granted that scientific truth is always partial, relative to and limited by its historical context, and inevitably subject to correction even when not wholly superseded. It would be difficult indeed to find another scientist born in the middle decade of the nineteenth century whose work has not been left behind just as much as Freud's.

And yet Freud is much more than a historical figure. Again Fromm was right: he is surely the indispensable starting point for any serious student of psychoanalysis or psychotherapy and for (at the least) *many* serious students of psychology, psychiatry, and the other behavioral sciences; not as a source of infallible wisdom, for there is none such to be found anywhere; not as an intellectual father to be swallowed whole in a fantasied act of magical identification; and not as a generator of propositions that can be carried directly to the laboratory for rigorous verification or falsification. But read sympathetically and with appropriate caution, Freud still has an enormous amount to teach us about myriad aspects of human beings, their ways of growing up and of failing to thrive, their peculiarities, kinks, and quirks, and above all about their secret lives.

This collection of indexed abstracts, now easily available to a wide audience, will prove particularly valuable as a sample of and guide to the formidable bulk of the *Standard Edition of the Complete Psychological Works of Sigmund Freud*. Any reader who picks it up in the hope of finding a quick and easy summary, a Freud boiled down to one delicious and

super-nutritious drop, is bound to be disappointed. It is no *Reader's Digest* job, not a ‘‘classic condensed for everyman” in the American commercial tradition that reduces any work of substance to a few easily digested clichés. I see it, rather, as much more like the psychologist's indispensable bibliographic aid, the *Psychological Abstracts*: an entry into a large literature through an index by which articles relevant to a topic of interest can be located and then sampled with the aid of expertly condensed summaries. It will not substitute for, but will facilitate, a reading of Freud in his own words.

The remainder of these introductory remarks has the same objective. In a different way, they are intended to orient, forearm, alert, prime, or precondition the reader, so that he or she may enjoy Freud more, be less confused by him, misinterpret him less often, and grasp better what he has to offer, than would be the case by approaching his writings unprepared. For the modem reader of Freud must expect a mixture of delights and difficulties. On the positive side, Freud remains enjoyably and absorbingly readable, even in translation plainly a master of prose. On the negative, however, anyone who is not thoroughly versed in his works and acquainted with certain other literatures, repeatedly encounters baffling difficulties in grasping his meaning in any but a general sense.

Historical Background for a Reading of Freud

To some degree, the problems are those to be expected in reading European works of almost any kind that are from 35 to more than 80 years old. Some terminology is bound to be outdated, some references to scientific or literary works or to then-current events that Freud could assume his contemporary readers were familiar with convey nothing any longer or even give misleading impressions; and an American reader who does not know the continental literary classics is especially handicapped. To a large extent but not completely, the devoted editorship of Strachey anticipates such problems and his footnotes provide helpful explanations.

Other problems arise from Freud's habit of occasionally assuming that the reader knew his previous works, even his unpublished ones. Thus, a great deal that was baffling about Chapter 7 of *The Interpretation of Dreams* (Freud, 1900)—e.g., his reference to the undefined and unexplained-systems—became intelligible only after the belated publication of the "Project" (Freud, 1895). But in any event, many students of Freud have pointed out the necessity of reading him sequentially. His thought cannot be understood if his developing ideas are taken out of their own context. Fortunately, the chronological ordering of the *Standard Edition* and of these abstracts encourages such a reading.

THE DEVELOPMENT OF FREUD'S IDEAS

There were four major and overlapping phases of Freud's scientific work:

1. His prepsychoanalytic work, which lasted about 20 years, may be subdivided into an initial 10 years of primarily histological-anatomical research and a partly overlapping 14 years of clinical neurology, with increasing attention to psychopathology, beginning in 1886 when he returned from Paris.

2. The first theory of neurosis dates from the decade of the 1890's, when Freud used hypnosis and Breuer's cathartic method of psychotherapy, gradually developing the psychoanalytic methods of free association, dream interpretation, and the analysis of transference. The first dozen truly psychoanalytic papers appeared during this time, expounding the view that neurosis is a defense against intolerable memories of a traumatic experience—infantile seduction at the hands of a close relative. With the discovery of his own Oedipus complex, however, Freud came to see that such reports by his patients were fantasies, which led him to turn his interest away from traumatic events in external reality and toward subjective psychic reality. A notable but only recently discovered event in the development of Freud's thought occurred in 1895 after the publication of the book he wrote with Breuer. He wrote but did not publish a "Psychology for Neurologists" (or "Project for a Scientific Psychology," hereafter called merely "the Project"), presenting a comprehensive anatomical-physiological model of the nervous system and its functioning in normal behavior, thought, and dreams, as well as in hysteria. He sent it to his friend Fliess in high excitement, then quickly became discouraged by the difficulties of creating a thoroughgoing mechanistic and reductionistic psychology. He tinkered with the model for a couple of years in letters to Fliess, and finally gave it up.

The turn of the century marked many basic changes in Freud's life and work: he

severed his close and dependent friendships with colleagues (first Breuer, then Fliess) and his contacts with the Viennese medical society; his father died; his last child was born; he psychoanalyzed himself; he gave up neurological practice, research, and conceptual models; and he created his own new profession, research method, and theory, in terms of which he worked thereafter.

3. Freud's topographic model of the "psychic apparatus'' was the foundation of two decades of work during which he published his major clinical discoveries: notably, *The Interpretation of Dreams* (1900) and *Three Essays on the Theory of Sexuality* (1905b); his papers on the technique used in psychoanalytic treatment; his five major case histories; the central works of metapsychology; and a series of important surveys and popularizations of his ideas, in addition to his principal applications of his theories to jokes, literature and art, biography, and anthropology. A complete or metapsychological explanation, Freud wrote in 1915, requires "describing a psychical process in its dynamic, topographical and economic aspects''—that is, in terms of a theoretical model in which the central concepts are psychological forces, structures, and quantities of energy (Rapaport & Gill, 1959). Hence, we speak of three metapsychological points of view. The topographic model, which was first set forth in Chapter 7 of *The Interpretation of Dreams* and was further elaborated in the metapsychological papers of 1915, conceptualizes thought and behavior in terms of processes in three psychological systems: the Conscious, Preconscious, and Unconscious (none of which has an explicit locus in the brain).

4. In the final period, between the two world wars, Freud made four main types of contribution: the final form of his theory of instinctual drives (*Beyond the Pleasure*

Principle, 1920); a group of major modifications of both general and clinical theory—most notably, the structural model of the psychic apparatus (*The Ego and the Id*, 1923) and the theory of anxiety and defense (*Inhibitions, Symptoms and Anxiety*, 1926a); applications of psychoanalysis to larger social problems; and a group of books reviewing and reformulating his theories.

To grasp the structure of Freud's work, it is useful not only to adopt such a developmental approach but also to view his theories from the perspective of the following threefold classification.

First and best known is the clinical theory of psychoanalysis, with its psychopathology, its accounts of psychosexual development and character formation, and the like. The subject matter of this type of theorizing consists of major events (both real and fantasied) in the life histories of persons, events occurring over spans of time ranging from days to decades. This theory is the stock in trade of the clinician—not just the psychoanalyst, but the vast majority of psychiatrists, clinical psychologists, and psychiatric social workers. Loosely referred to as "psychodynamics," it has even penetrated into general academic psychology via textbooks on personality.

Second, there is what Rapaport (1959) has called the general theory of psychoanalysis, also called metapsychology. Its subject matter—processes in a hypothetical psychic apparatus or, at times, in the brain—is more abstract and impersonal; and the periods of time involved are much shorter—from fractions of a second up to a few hours. The processes dealt with are mostly those occurring in dreams, thinking, affect, and defense. Freud's reasoning in working out this theory is much closer, and he made more use of

theoretical models of the psychic apparatus. The main works are the “Project for a Scientific Psychology,” Chapter 7 of *The Interpretation of Dreams*, and the metapsychological papers.

Third is what might be called Freud's phylogenetic theory. The subject matter is man as a species or in groups, and the periods of time involved range from generations to eons. Here are Freud’s grand speculations, largely evolutionary and teleological in character. They contain no explicit models of a psychic apparatus, employing instead many literary, metaphorical concepts. The principal works of this type are *Totem and Taboo* (1913), *Beyond the Pleasure Principle* (1920), *Group Psychology and the Analysis of the Ego* (1921), *The Future of an Illusion* (1927), *Civilization and Its Discontents* (1930), and *Moses and Monotheism* (1934-1938).

His clinical contributions are among the earliest of Freud’s papers that are still being read, and he continued to write in this vein all his life. As for the other two types of theory, the major metapsychological works came early, the main phylogenetic ones late. As Freud’s concepts became more metaphorical and dealt with such remote issues as man's ultimate origins and the meaning of life and death, he became less concerned with describing or systematically accounting for the course and fate of an impulse or thought.

Even when Freud’s works are read in the order in which he wrote them, much remains obscure if one has no conception of the contemporary status of the scientific and professional issues he was discussing. Fortunately for us, modern scholars are supplying a good deal of this needed background (e.g., Amacher, 1965; Andersson, 1962; Bernfeld, 1944; Ellenberger, 1970; Jackson, 1969; Spehlmann, 1953; see also Holt, 1965a, 1968). The

relevant chapters of Ellenberger's masterly history are especially recommended for the scholarly but absorbingly readable way in which they give the social and political as well as scientific, medical, and general intellectual contexts in which Freud was writing. Here, I can do no more than touch lightly on a number of the most important and relevant intellectual currents of the nineteenth century.

NATURPHILOSOPHIE AND ITS REJECTION

The way for the romantic revolt that broadly characterized all aspects of intellectual life in the early 1800's had been prepared by *Naturphilosophie*, a mystical and often rhapsodic view of Nature as perfused with spirit and with conflicting unconscious forces and as evolving according to an inner, purposive design. Not a tightly knit school, its constituent thinkers included (in chronological order) Kant, Lamarck, Goethe, Hegel, Schelling (perhaps the central figure), Oken, and Fechner. With the exception of Fechner, who lived from 1801 to 1887, they all lived athwart the eighteenth and nineteenth centuries. *Naturphilosophie* encouraged the recrudescence of vitalism in biology, championed by the great physiologist Johannes Muller, and stimulated a humanistic school of romantic medicine (Galdston, 1956). In psychiatry, the early part of the century was dominated by the reforms of Pinel, Esquirol, and their followers, who introduced an era of "moral treatment": firm kindness in place of restraints, therapeutic optimism based on etiological theories of a more psychological than organic cast, and an attempt to involve inmates of asylums in constructive activities.

The tough-minded reaction to this tender-minded era was greatly aided by the strides being made in physics and chemistry. Three of Muller's students, Brücke, du Bois-

Reymond, and Helmholtz, met Carl Ludwig in 1847 and formed a club (which became the Berlin Physical Society) to "constitute physiology on a chemico-physical foundation, and give it equal scientific rank with Physics" (Ludwig, quoted by Cranefield, 1957, p. 407). They did not succeed in their frankly reductionist aim but did attain their other objectives: to promote the use of scientific observation and experiment in physiology, and to combat vitalism. Among themselves, they held to the following program:

> 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 to assume new forces equal in dignity to the chemical-physical forces inherent in matter, reducible to the force of attraction and repulsion, (du Bois-Reymond, quoted by Bernfeld, 1944, p. 348)

In Germany especially, this materialistic ferment of physicalistic physiology, mechanism, and reductionism became the mode, gradually putting romantic medicine, vitalism, and other aspects of *Naturphilosophie* to rout. Where earlier there had been Psychic, Psycho-somatic, and Somatic schools in German psychiatry (see Earle, 1854, in Hunter & Macalpine, 1963, pp. 1015-1018), the Somatic gradually won out; Meynert (Freud's teacher of psychiatry), for example, conceived mental disorders to be diseases of the forebrain. Despite its therapeutic successes, moral treatment was banished along with its psychogenic (often sexual) theories as "old wives' psychiatry,'' in favor of strictly organic-hereditarian views and very little by way of therapy (Bry & Rifkin, 1962).

The University of Vienna medical school was an outpost of the new hyperscientific biology, with one of its promulgators, Brücke, holding a major chair and directing the Physiological Institute (Bernfeld, 1944). Ironically, Freud tells us that his decision to enter

medical school was determined by hearing the "Fragment on Nature'' attributed to Goethe read aloud at a public lecture. This short prose poem is an epitome of *Naturphilosophie*, and it must have swayed Freud because of his longstanding admiration for Goethe and perhaps because of a "longing for philosophical knowledge,'' which had dominated his early years, as he said later in a letter to Fliess. Evolution had been a major tenet of *Naturphilosophie*; so it is not surprising that this 1780 dithyramb could be part of a lecture on comparative anatomy, the discipline that furnished much of the crucial evidence for Darwin's *Origin of Species* (1859).

ENERGY AND EVOLUTION

Perhaps the two most exciting concepts of the nineteenth century were energy and evolution. Both of these strongly influenced Freud's teachers at the medical school. Helmholtz had read to the 1847 group his fundamental paper on the conservation of energy—presented as a contribution to physiology. Thirty years later, Brücke's lectures were full of the closely related (and still poorly differentiated) concepts of energy and force. To use these dynamic concepts was the very hallmark of the scientific approach; Brücke taught that the "real causes are symbolized in science by the word 'force' ''(Bernfeld, 1944, p. 349). It seems obvious that the first of Freud's three metapsychological points of view, the dynamic (explanation in terms of psychological forces), had its origins in this exciting attempt to raise the scientific level of physiology by the diligent application of mechanics and especially of dynamics, that branch of mechanics dealing with forces and the laws of motion. The heavily quantitative emphasis of the school of Helmholtz and its stress on energy are clearly the main determinants of metapsychology seen from the economic point of view (explanation in terms of quantities of energy). The fact that, among

authors Freud respected most, such disparate figures as Fechner and Hughlings Jackson held to dynamic and economic viewpoints no doubt strengthened Freud's unquestioning conviction that these viewpoints are absolutely necessary elements of an explanatory theory.

Despite its physicalistic program, the actual work of Brücke's institute was largely classical physiology and histology. Freud had had his Darwinian scientific baptism under Claus in a microscopic search for the missing testes of the eel, and his several attempts at physiological and chemical experiments under other auspices were fruitless. He was happy, therefore, to stay at the microscope where Brücke assigned him neurohistological studies, inspired by and contributing to evolutionary theory. When he worked with Meynert, it was again in a structural discipline with a genetic method—the study of brain anatomy using a series of fetal brains to trace the medullar pathways by following their development. His subsequent clinical practice was in neurology, a discipline which, as Bernfeld (1951) has noted, was "merely a diagnostic application of anatomy." Moreover, Freud's first full-scale theoretical model, the "Project" of 1895, is foremost a theory about the structural organization of the brain, both gross and fine. His early training thus demonstrably convinced him that a scientific theory has to have a structural (or topographic) base.

It was Bernfeld (1944) who first pointed out the strikingly antithetical content of these two coexisting intellectual traditions—*Naturphilosophie* and physicalistic physiology—both of which profoundly influenced Freud, and in that order. In his published works, to be sure, hardly anything of *Naturphilosophie* can be seen in the papers and books of his first two periods, and it emerged almost entirely in what I have cited above as his phylogenetic,

speculative works. Many properties of his concept of psychic energy can nevertheless be traced to the vitalism that was a prominent feature of *Naturphilosophie* (Holt, 1967). Moreover, these two schools of thought may also be seen as particular manifestations of even broader, more inclusive bodies of ideas, which I call (following Chein, 1972) *images of man*.

Freud's Two Images of Man

I believe that there is a pervasive, unresolved conflict within all of Freud's writings between two antithetical images; a conflict that is responsible for a good many of the contradictions in his entire output but that his cognitive make-up allowed him to tolerate (as we shall shortly see). On the one hand, the main thrust of Freud's theoretical effort was to construct what he himself called a metapsychology, modeled on a mid-nineteenth-century grasp of physics and chemistry. Partly embodied in this and partly lying behind it is what I call his *mechanistic image* of man. The opposing view, so much less prominent that many students are not aware that Freud held it, I like to call a *humanistic image* of man. It may be seen in his clinical works and in the broad, speculative, quasi-philosophical writings of his later years, but it is clearest in Freud's own life and interactions with others, best verbalized for us perhaps in his letters. Unlike the mechanistic image, the humanistic conception of man was never differentiated and stated explicitly enough to be called a model; yet it comprises a fairly rich and cohesive body of assumptions about the nature of human beings, which functioned in Freud's mind as a corrective antagonist of his mechanistic leanings.

There is little evidence after 1900 that Freud was conscious of harboring incompatible images of man, neither of which he could give up. Nevertheless, many otherwise puzzling aspects of psychoanalysis become intelligible if we assume that both images were there, functioning in many ways like conflicting motive systems.

Let me emphasize that what I am going to present is not an epitome of various theories specifically proposed by Freud. Rather, the two images are inferred complexes of ideas, extracted from Freud's life and writings and reconstructed in much the same way he taught us to use in understanding neurotic people: by studying a patient's dreams, symptoms, and "associations," we infer unconscious fantasies, complexes, or early memories that never become fully conscious, but which enable us to make sense out of his productions, which seem on the surface so bewilderingly diverse. This endeavor is fraught with a certain amount of risk. Even the mechanistic image was made explicit as a theoretical model only in the "Project," the unpublished attempt at a neuropsychology that Freud wrote in 1895. Thereafter, this model seems to have been largely forgotten or suppressed along with its antithesis, the humanistic image.

FREUD'S HUMANISTIC IMAGE OF MAN

Neither of Freud's images was especially original with him; each was his personal synthesis of a body of ideas with a long cultural history, expressed and transmitted to him in considerable part through books we know he read. Long before and long after Freud decided to become a scientist, he was an avid reader of the belletristic classics that are often considered the core of western man's humanistic heritage. He had an excellent liberal and classical education, which gave him a thorough grounding in the great works of Greek, Latin, German, and English authors, as well as the Bible, Cervantes, Moliere, and other major writers in other languages, which he read in translation. He was a man of deep culture, with a lifelong passion for reading poetry, novels, essays, and the like and for learning about classical antiquity in particular but the arts generally, through travel, collecting, and personal communication with artists, writers, and close friends who had

similar tastes and education.[2] And despite his later, negative comments about philosophy, he attended no less than five courses and seminars with the distinguished philosopher-psychologist Brentano during his years at the University of Vienna.

Very few of the many nonphysicians who were drawn to psychoanalysis and who became part of Freud's circle were trained in the "harder" or natural sciences. Mainly, they came from the arts and humanities. For every Waelder (a physicist) there were a few like Sachs and Kris (students primarily of literature and art). Surely this tells us something not only about influences on Freud but the kind of man he was, the conception of man by which he lived and which was conveyed by subtle means to his co-workers.

In various ways, then, Freud came under the influence of the prevailing image of man conveyed by the important sector of western culture we call the humanities. Let me now outline some of the major components of this image of man, which can be discerned in Freud's writings.

1. Man is both an animal and something more, a creature with aspirations to divinity. Thus, he has a *dual nature*. He possesses carnal passions, vegetative functions, greed and lust for power, destructiveness, selfish concern with maximizing pleasure and minimizing pain; but he also has a capacity to develop art, literature, religion, science, and philosophy—the abstract realms of theoretical and esthetic values—and to be unselfish, altruistic, and nurturant. This is a complex view of man from the outset, as a creature who cares deeply about higher as well as lower matters.

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[2] Ellenberger (1970, p. 460) tells us that Freud showed the playwright Lenormand "the works of Shakespeare and of the Greek tragedians on his [office] shelves and said: 'Here are my masters.' He maintained that the essential themes of his theories were based on the intuition of the poets."

2. Each human being is unique, yet all men are alike, one species, each one as human as any other. This assumption carries a strong value commitment as well, to the proposition that each person is worthy to be respected and to be helped, if in trouble, to live up to the extent of his capacities, however limited they may be. Freud was one of the main contributors of an important extension of this assumption through his discovery that there was indeed method in madness (as Shakespeare knew intuitively), that the insane or mentally ill could be understood and in fact were actuated by the same basic desires as other men. Thus, in the tradition of such psychiatrists as Pinel, Freud did a great deal to reassert the humanity of the mentally and emotionally abnormal and their continuity with the normal.

3. Man is a creature of longings, a striver after goals and values, after fantasies and images of gratification and of danger. That is, he is capable of imagining possible future states of pleasure, sensual joy or spiritual fulfillment, and of pain, humiliation, guilt, destruction, etc.; and his behavior is guided and impelled by wishes to obtain the positive goals and to avoid or nullify the negative ones, principally anxiety.

4. Man is a producer and processor of subjective meanings, by which he defines himself, and one of his strongest needs is to find his life meaningful. It is implicit in the humanistic image that meanings are primary, irreducible, causally efficacious, and of complete dignity as a subject of systematic interest. Psychopathology, accordingly, is conceived of in terms of maladaptive complexes or configurations of ideas, wishes, concepts, percepts, etc.

5. There is much more to man than he knows or would usually want us to think, more

than is present in his consciousness, more than is presented to the social world in public. This secret side is extraordinarily important. The meanings that concern a person most, including fantasies and wishes, are constantly active without awareness, and it is difficult for people to become aware of many of them. To understand a person truly, it is therefore necessary to know his subjective, inner life—his dreams, fantasies, longings, preoccupations, anxieties, and the special coloring with which he sees the outer world. By comparison, his easily observed, overt behavior is much less interesting and less important.

6. Inner conflict is inevitable because of man's dualities—his higher and lower natures, conscious and unconscious sides; moreover, many of his wishes are mutually incompatible or bring him into conflict with demands and pressures from other people.

7. Perhaps the most important of these wishes comprises the complex instinct of love, of which sexual lust is a major (and itself complicated) part. Man's urge for sexual pleasure is almost always strong, persistent, and polymorphous, even when it seems thoroughly inhibited or blocked, and may be detached from love. At the same time, Freud was always sensitive to the many forms of anger, hate, and destructiveness, long before he formally acknowledged them with his theory of the death instinct.

8. Man is an intensely social creature, whose life is distorted and abnormal if not enmeshed in a web of relationships to other people—some of these relationships formal and institutionalized, some informal but conscious and deliberate, and many of them having important unconscious components. Most human motive systems are interpersonal in character, too: we love and hate other people. Thus, the important reality for man is social and cultural. These Sullivanian-sounding propositions are clearly implicit in Freud's

case histories.

9. A central feature of this image of man is that he is not static but is always changing—developing and declining, evolving and devolving. His most important unconscious motives derive from experiences in childhood—the child is father to the man. Man is part of an evolutionary universe, thus in principle almost infinitely perfectible though in practice always subject to setbacks, fixations, and regressions.

10. Man is both the active master of his own fate and the plaything of his passions. He is capable of choosing among alternatives, of resisting temptations and of governing his own urges, even though at times he is a passive pawn of external pressures and inner impulses. It therefore makes sense to try to deal with him in a rational way, to hope to influence his behavior by discussing things and even urging him to exert his will. Thus, man has both an id and an autonomous ego.

Extracted from a body of work in which it has no systematic place, this humanistic image, as presented, is somewhat vague and poorly organized. Nevertheless, I see no intrinsic reason why it could not be explicated and developed in a more systematic way.

FREUD'S MECHANISTIC IMAGE OF MAN

This humanistically educated and philosophically inclined young man, fired by a romantic and vitalistic conception of the biology he wanted to study, went to the University of Vienna medical school, where he found himself surrounded by men of great prestige and intellectual substance teaching exciting scientific doctrines of a very different kind. He underwent a hasty conversion first to a radical materialism, and then to physicalistic physiology, a principal heir of the mechanistic tradition that started with Galileo and

sought to explain everything in the universe in terms of Newtonian physics.

Freud was for years under the spell of Brücke, whom he once called the greatest authority he ever met. Several of his other teachers and colleagues were also enthusiastic members of the mechanistic school of Helmholtz, notably Meynert, Breuer, Exner, and Fliess. The outlook of this narrow but rigorous doctrine was forever after to shape Freud's scientific ideals, lingering behind the scenes of his theorizing, almost in the role of a scientific superego. In this sense, I believe that the mechanistic image of man underlies and may be discerned in Freud's metapsychological writings, even when certain aspects of that image seem to be contradicted.

In many details, the mechanistic image is sharply antithetical to the humanistic one. I have attempted to bring out this contrast in the following catalogue of assumptions.

1. Man is a proper subject of natural science, and as such is no different from any other object in the universe. All of his behavior is completely determined, including reports of dreams and fantasies. That is, all human phenomena are lawful and in principle possible to explain by natural- scientific, quantitative laws. From this vantage, there is no meaning to subdividing his behavior or to considering his nature to be dual—he is simply an animal, best understood as a machine or *apparatus*, composed of ingenious *mechanisms*, operating according to Newton's laws of motion, and understandable without residue in terms of physics and chemistry. One need not postulate a soul or vital principle to make the apparatus run, though *energy* is an essential concept. All the cultural achievements of which man is so proud, all his spiritual values and the like, are merely sublimations of basic instinctual drives, to which they may be reduced.

2. The differences among men are scientifically negligible; from the mechanistic standpoint, all human beings are basically the same, being subject to the same universal laws. The emphasis is put upon discovering these laws, not on understanding particular individuals. Accordingly, metapsychology takes no note of individual differences and does not seem to be a theory of personality.

3. Man is fundamentally motivated by the automatic tendency of his nervous system to keep itself in an unstimulated state, or at least to keep its tensions at a constant level. The basic model is the *reflex arc*: external or internal stimulus leads to activity of the CNS which leads to response. All needs and longings must, for scientific purposes, be conceptualized as forces, tensions that must be reduced, or energies seeking discharge.

4. There is no place for meanings or value in science. It deals with quantities, not qualities, and must be thoroughly objective. Phenomena such as thoughts, wishes, or fears are epiphenomenal; they exist and must be explained, but have no explanatory power themselves. Energies largely take their place in the mechanical model.

5. There is no clear antithesis to the fifth humanistic assumption, the one dealing with the importance of the unconscious and the secret, inner side of man. A corresponding reformulation of the same point in mechanistic terms might be: consciousness too is an epiphenomenon,[3] and what happens in a person's awareness is of trivial interest compared

[3] True (as M. M. Gill has kindly pointed out to me), in the "Project" Freud did explicitly deny that consciousness is an epiphenomenon. Yet the whole trend of the "Project" demands the view he was unwilling to espouse: it is an attempt to account for behavior and neurosis in purely mechanistic terms, without the intervention of any mental entities in the causal process. Indeed, I believe that it was largely because he could not succeed in his aim without postulating a conscious ego as an agent in the process of defense, and because he could not attain a satisfactory mechanistic explanation of consciousness, that Freud abandoned the "Project."

to the busy activities of the nervous system, most of which go on without any corresponding consciousness.

6. The many forces operating in the apparatus that is man often collide, giving rise to the subjective report of *conflict*.

7. The processes sentimentally known as love are nothing more than disguises and transformations of the sexual instinct, or, more precisely, its energy (*libido*). Even platonic affection is merely aim-inhibited libido. Sex, not love, is therefore the prime motive. And since the fundamental tendency of the nervous system is to restore a state of unstimulated equilibrium, the total passivity of death is its ultimate objective. Rage and destructiveness are merely disguises and transformations of the death instinct.

8. *Objects* (that is to say, other people) are important only insofar as they provide stimuli that set the psychic apparatus in motion and provide necessary conditions for the reduction of internal tensions that brings it to rest again. Relationships as such are not real; a psychology can be complete without considering more than the individual apparatus and events within it, plus the general class of external stimuli. Reality contains "only masses in motion and nothing else" (Freud, 1895, p. 308).

9. The genetic emphasis is not very different for Freud as mechanist and as humanist, so let us go to the last point:

10. Since man's behavior is strictly determined by his past history and by the contemporary arrangement of forces, free will is a fallacious illusion. To allow the idea of *autonomy* or freedom of choice would imply spontaneity instead of passivity in the nervous system, and would undermine the assumption—considered scientifically necessary—that

behavior is determined strictly by the biological drives and by external stimuli.

IMPLICATIONS OF THE TWO IMAGES

Psychoanalytic theory as we know it is a tissue of compromises between these two opposing images. The influence of the mechanistic image is clearest in the metapsychology, where the general structure of the major propositions as well as a good deal of the terminology can be seen to derive directly from the explicitly mechanistic and reductionistic model of the "Project." The most striking change was Freud's abandoning an anatomical-neurological framework for the abstract ambiguity of the "psychic apparatus," in which the structures and energies are psychic, not physical. Unwittingly, Freud took a plunge into Cartesian metaphysical dualism, but staved off what he felt was the antiscientific threat of the humanistic image by continuing to claim ultimate explanatory power for metapsychology as opposed to the theoretically less ambitious formulation of clinical observations in language that was closer to that of everyday life. And in the metapsychology, by using the trick of translating subjective longings into the terminology of forces and energies, Freud did not have to take the behavioristic tack of rejecting the inner world; by replacing the subjective, willing self with the ego defined as a psychic structure, he was able to allow enough autonomy to achieve a fair fit with clinical observation.

Without realizing it, therefore, Freud did not give up the passive reflex model of the organism and the closely related physicalistic concept of reality even when he put aside deliberate neuropsychologizing. Although he explicitly postponed any attempt to relate the terms of metapsychology to processes and places in the body, he substituted psychological

theories that carry the same burden of outmoded assumptions.

The relation between the humanistic image and *Naturphilosophie* remains to be clarified. In one sense, the latter can be considered a part of the former; yet in a number of respects it has a special status. I think of it as a peculiarly European intellectual anomaly, naturally related to its matrix of early nineteenth-century ideas and already anachronistic by Freud's time. Where the modern temper (even in history and the other social sciences) looks for detailed, prosaic chains and networks of demonstrable causes, the intellectuals of that era saw nothing wrong with postulating a conceptual shortcut, an *ad hoc* "force" or "essence" or another theoretical *deus ex machina* to which an observed outcome was directly attributed. Loose analogies were readily accepted as adequate means of forming hypotheses (usually genetic), and hardly anyone grasped the distinction between generating a plausible bright idea and reaching a defensible conclusion. To this temper, audacity was more to be admired than caution. A brilliantly unexpected linkage of events or phenomena was a better achievement than a laboriously nailed-down conclusion. Thus, the grand sweep of Darwin's ideas caught the public fancy, preconditioned as it was by a legacy of *Naturphilosophie*, much more than his extraordinary assemblage of detailed empirical evidence. Darwin did not introduce the idea of evolution; his contribution was to work out in convincing detail a nonteleological mechanism by which the gradual origin of species could be accounted for. It was an irony indeed that his great book seemed in the popular mind a *confirmation* of the teleological, even animistic, notions of *Naturphilosophie*, though there have been many such events in the history of science. Perhaps the majority of people approach new ideas "assimilatively" (to use Piaget's term), reducing them to their nearest equivalent in the stock of already existing concepts, so that a revolutionary

proposal may end up reinforcing a reactionary idea.

One might even argue that in the world of today, the main function of grand, integrative speculations—philosophical or pseudoscientific ‘ ‘theories of the universe”—is to help adolescents gain a temporary intellectual mastery of the confusion they experience upon the sudden widening of their horizons, both emotional and ideational. In a sense, Freud the medical student was quite justified in feeling that his Nature-philosophical leanings were among the childish things that a man had to put away. Jones (1953, p. 29) writes that when he once asked Freud how much philosophy he had read, the answer came: “Very little. As a young man I felt a strong attraction towards speculation and ruthlessly checked it.”

On the basis of this and many relevant remarks and passages, I have summarized (see table) the aspects of Freud's thought that seem traceable to *Naturphilosophie* and to his philosophical studies with Brentano, along with their counterparts, drawn from the tradition of mechanistic science and in particular from Freud’s own apprenticeship in physicalistic physiology. To an unknown extent, some items on the left may have derived from other humanistic sources, but this one seems most plausible. (Evidence that the various elements were associated in the manner indicated is presented in Holt, 1963.) Freud usually spoke slightingly about all of the methods and procedures of the formal disciplines, as in the quotation above, where it is noteworthy (and characteristic) that he equated philosophy and speculation. Deduction, comprehensiveness of a theory’s coverage, and rigorous definition were associated in his mind with the sterile, formalistic aspects of

Table 1: Latent Structure of Freud's Methodological Conceptions

	Derived largely from philosophy, especially *Naturphilosophie*:	Derived largely from physicalistic physiology:
Associated disciplines:	Philosophy; academic philosophical psychology	Physiology; neuropsychology; metapsychology
Nature of theorizing:	Complete, comprehensive theories, with precise definitions of concepts	Partial, ad hoc theories with groping imprecisely defined concepts
Procedures and methods:	Deductive procedure, use of mathematics; speculation; synthesis	Inductive procedure (nonformalistic); observation; dissection; analysis

philosophy. And yet (perhaps because of the bridge-concept of evolution), *Naturphilosophie* and the rest of this complex of ideas were linked in Freud's mind with Darwinian biology and to the similarly genetic discipline of archaeology. These respectable sciences which, unlike philosophy and mathematics, were concretely empirical, reconstructed the remote past of man by a genetic method. Perhaps the thought that he was following their method enabled Freud, finally, to indulge his long-suppressed yearning for broad, speculative theorizing. In his autobiography (Freud, 1925, p. 57), he wrote: "In the works of my later years (*Beyond the Pleasure Principle, Group Psychology and the Analysis of the Ego*, and *The Ego and the Id*), I have given free rein to the inclination, which I kept down for so long, to speculation...."

In a sense, of course, it is only an extension of the method of genetic reconstruction to go back beyond the beginnings of an individual life and attempt to trace the development of socially shared customs in the larger life history of a people, as Freud did in *Totem and*

Taboo. The conceptions of Haeckel (that ontogeny recapitulates phylogeny) and of Lamarck (that acquired characteristics may be passed on genetically) were generally known during Freud's scientifically formative years and enjoyed a far more widespread acceptance by the scientific world than they did during Freud's later years. This acceptance made it difficult for him to give them up. If the functional anthropologists had appeared a generation sooner and if the evolutionary approach had not been so popularized by Sir James Frazer, Freud might have been able to understand how pervasive and unconscious the patterning of a culture can be. This intricate interconnection makes it possible for culture to be transmitted via subtle and almost imperceptible kinds of learning, a fact that obviates what Freud (1934—38) declared was the necessity that a social psychology should postulate the inheritance of acquired characteristics.

Freud's Cognitive Style

Let us turn now to the last major source of difficulty the modern reader encounters in understanding Freud: his cognitive style. Anyone who has read Freud at all may react to that proposition with astonishment, for Freud's style is much admired for its limpid clarity. Even in translation, Freud is vivid, personal, and charmingly direct in a way that makes him highly readable; he uses imaginative and original figures of speech, and often leads the reader along by a kind of stepwise development that enables him to penetrate into difficult or touchy areas with a minimum of effort. Anyone who has read much of his writing can easily understand why he received the Goethe prize for literature.

Nevertheless, there are stylistic difficulties in understanding him; but they relate to his *cognitive*, not his literary style. A couple of decades ago George Klein (1951, 1970) coined the term cognitive style to mean the patterning of a person's ways of taking in, processing, and communicating information about his world. Freud has an idiosyncratic way not just of writing but of thinking, which makes it surprisingly easy for the modern reader to misinterpret his meaning, to miss or distort many subtleties of his thought. To some degree, I myself may be subtly distorting Klein's concept, for he operationalized it in the laboratory, not the library. He presented subjects with hidden figures to be extracted from camouflage, series of squares to be judged for size, and other unusual tasks, some of his own and some of others' devising. By contrast, the methods I have used are more like those of the literary critic. I have collected notes on what struck me as characteristic ways in

which Freud observed, processed data, obtained ideas by means other than direct observation, thought about them, and put his personal stamp on them. In doing so, however, I have been guided by my long association with Klein and his own way of approaching cognitive processes and products; so I trust that I have been true to the spirit of his contribution, which is now so widely used as to be virtually a part of psychology's common property.

CHARACTER STYLE

Perhaps as good a place to start as any is with Ernest Jones's well-known biography. Much of the little that he has to say on this topic can be organized in the form of antitheses or paradoxes. First of all, there was a great deal about Freud that was *compulsively orderly and hard-working*. He led a stable, regular life in which his work was a basic necessity. As he wrote to Pfister: "I could not contemplate with any sort of comfort a life without work. Creative imagination and work go together with me; I take no delight in anything else." Yet he went on, "That would be a prescription for happiness were it not for the terrible thought that one's productivity depends entirely on sensitive moods" (Jones, 1955, p. 396f.). As Jones brings out, he did indeed work by fits and starts, not quite so steadily and regularly as, say, Virgil, but when the mood was on him.

Again, Jones remarks on "Freud's close attention to verbal detail, the striking patience with which he would unravel the meaning of phrases and utterances" (ibid., p. 398). On the other hand:

> His translators will bear me out when I remark that minor obscurities and ambiguities, of a kind that more scrupulous circumspection could have readily avoided, are not the least of their trials. He was of course aware of this. I remember once asking him why he

> used a certain phrase, the meaning of which was not clear, and with a grimace he answered: "*Pure Schlamperei*" (sloppiness) (1953, p. 33f.).

He was himself not a meticulous translator, though a highly gifted one. "Instead of laboriously transcribing from the foreign language, idioms and all, he would read a passage, close the book, and consider how a German writer would have clothed the same thoughts … His translating work was both brilliant and rapid" (Jones, 1953, p. 55). Similarly, Jones remarks on Freud's "quickness of thought and observation" generally, and the fact that "His type of mind was such as to penetrate through the material to something really essential beyond rather than to dally or play with it" (1955, p. 399). In short, he was intuitive rather than ploddingly systematic.

This particular paradox can be resolved, I believe, by the recognition that Freud was, basically, an obsessive-compulsive personality, in which this type of ambivalence is familiar. He had a good measure of the fundamental anal traits of orderliness and compulsive attention to detail; yet when it came to his mode of working with such details as the slightest turn of phrase in the telling of a dream (which only a compulsive would have noticed in the first place), he showed a gift for intuition. After all, as Jones never tires of reminding us, he *was* a genius, a man of extraordinary intelligence.

NATURE OF FREUD'S INTELLECT

What *kind* of intelligence was it, then? If we adopt the frame of reference of the Wechsler intelligence tests, it was first of all predominantly a verbal rather than a performance sort of ability. I have seen no evidence that Freud was specially gifted with his hands. He failed as a chemical experimenter (Jones, 1953, p. 54), and though he was a good

microscopist and invented a new tissue stain during his years of scientific apprenticeship in Brücke's physiological laboratory, there is no evidence that he was skilled at the mechanical end of it. He was never what we call "an apparatus man," an ingenious tinkerer.[4] Incidentally, the usual implication of a markedly higher verbal over performance 10 would be borne out in Freud's case: he was surely never given to acting out, but was always an intellectualizer and internalizer. Moreover, "That there was a pronounced passive side to Freud's nature is a conclusion for which there is ample evidence." Jones (1953, p. 53) notes; "He once remarked that there were three things to which he felt unequal: governing, curing, and educating." He gave up hypnosis as "a coarsely interfering method" and soon abjured the laying on of hands despite the fact that he treated several of the ladies in *Studies in Hysteria* by physical massage. Sitting quietly and listening to free associations, responding only verbally (largely by interpretations), is the method par excellence of a man with verbal gifts and a disinclination to manipulate.

Within the realm of verbal intelligence, we can make some more specific statements as well. "He had an enormously rich vocabulary," Jones (1955, p. 402) attests, "but he was the reverse of a pedant in words.'' He knew eight languages, having enough mastery of English and French to write scientific papers in those tongues. There is a fair amount of evidence between the lines of Freud's writings that the modality of his thought was largely verbal, as

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[4] "As a young doctor I worked for a long time at the Chemical Institute without ever becoming proficient in the skills which that science demands; and for that reason in my waking life I have never liked thinking of this barren and indeed humiliating episode in my apprenticeship. On the other hand I have a regularly recurring dream of working in the laboratory, of carrying out analyses and of having various experiences there. These dreams are disagreeable in the same way as examination dreams and they are never very distinct. While I was interpreting one of them, my attention was eventually attracted by the word 'analysis'. which gave me a key to their understanding. Since those days I have become an 'analyst', and I now carry out analyses which are very highly spoken of .. ." (1900, p. 475)

opposed to imageless, visual, auditory, or kinesthetic. He gives evidence that he had been a virtual *Eidetiker* until well into his schooling, however:

> ... for a short period of my youth some unusual feats of memory were not beyond me. When I was a schoolboy I took it as a matter of course that I could repeat by heart the page I had been reading; and shortly before I entered the University I could write down almost verbatim popular lectures on scientific subjects directly after hearing them. (1901, p. 135)

His auditory imagery could be extraordinarily vivid, too, at least up until a few years later, when he was studying with Charcot in Paris. During these days, he reports, "I quite often heard my name suddenly called by an unmistakable and beloved voice,'' which he goes on to refer to unblinkingly as a "hallucination'' (1901, p. 261). Yet he writes about these experiences in such a way as to indicate that, like most other eidetic imagers, he gradually lost the ability as he grew older. True, his dreams remained vividly visual, and he occasionally was able to get a sharp visual image in waking life, but he emphasized that such occasions were exceptional. On the other hand, I have never found any indication that Freud was even aware that such a phenomenon as imageless thought exists; though investigators from Galton to Anne Roe have found that it characterizes many leading figures in such disciplines as mathematics and theoretical physics—disciplines that Jones specifically says (1953, p. 33) Freud could never have excelled in.

Perhaps there is a hint here that Freud's mind was not at the very forefront as far as highly abstract thinking is concerned. Surely he was not much of a mathematician. He once characterized himself as follows:

> I have very restricted capacities or talents. None at all for the natural sciences; nothing for mathematics; nothing for anything quantitative. But what I have, of a very restricted

> nature, was probably very intensive. (Quoted in Jones, 1955, p. 397)

As we shall see a little later, this relative weakness in the quantitative factor had a number of noticeable effects on Freud's manner of thinking.

To summarize so far, in terms of abilities, Freud had a predominantly verbal intelligence and mode of thinking. He was extraordinarily gifted at memory, concentration, passive (or as he put it, "evenly-suspended") attention, and creative concept-formation. His gift was more analytic than synthetic, just as his preference was for the former over the latter aspect of thinking. He had no notable gifts along sensorimotor, manipulative, or quantitative lines, nor in the most abstract types of thought. Above all, it may not be superfluous to add, he was productive, original, and creative.

SELF-CRITICAL DOUBTS VERSUS SELF-CONFIDENT DETERMINATION

In moving on to some more stylistic aspects of his thought, I shall continue to pursue antitheses. One such is the cognitive side of a prominent theme in Freud's personality: a self-critical, even retiring and self-doubting modesty versus a largely covert and negated thirst for fame coupled with great self-confidence. A number of the quotations both from Freud and from Jones have touched on his self-critical side, and the evidence for his deep-seated longing to see his name carved on a rock for the ages is omnipresent in Jones's three volumes, though the disciple outdid the master in protesting that it wasn't so. Both of these facets of Freud's mind come out in relation to the ideas he set forth in *Beyond the Pleasure Principle*. He wrote:

> What follows is speculation, often far-fetched speculation, which the reader will consider or dismiss according to his individual predilection. (1920, p. 24)

And:

> It may be asked whether and how far I am myself convinced of the truth of the hypotheses that have been set out in these pages. My answer would be that I am not convinced myself and that I do not seek to persuade other people to believe in them. Or, more precisely, that I do not know how far I believe in them.... Since we have such good grounds for being distrustful, our attitude towards the results of our own deliberations cannot well be other than one of cool benevolence. (1920, p. 59)

He was speaking, of course, about his most controversial speculations, those concerning the death instinct. Yet only a few years later, he wrote this:

> To begin with it was only tentatively that I put forward the views I have developed here, but in the course of time they have gained such a hold upon me that I can no longer think in any other way. To my mind, they are far more serviceable from a theoretical standpoint than any other possible ones; they provide that simplification, without either ignoring or doing violence to the facts, for which we strive in scientific work. (1930, p. 119)

In short, he had a tendency to become so "accustomed to the face" of his own ideas as to consider them indispensable and, finally, as established, even though they were originally presented with great modesty. Indeed, he looked back on the shaky speculations of *Beyond the Pleasure Principle* as a basis for supporting his fundamental assumption that there had to be two classes of instinctual drives:

> Over and over again we find, when we are able to trace instinctual impulses back, that they reveal themselves as derivatives of Eros. If it were not for the considerations put forward in *Beyond the Pleasure Principle*, and ultimately for the sadistic constituents which have attached themselves to Eros, we should have difficulty in holding to our fundamental dualistic point of view [in instinct theory). (1923, p. 46)

Here we have the first hint of one of the basic problems with which Freud struggled,

and which helped shape the nature of his thought. Working as he did in a new field, with no conventional criteria for establishing valid knowledge, he had to be sustained against the inevitable self-doubts, even the despair that what he was doing could lead anywhere, by an irrational confidence in himself, a faith that his intuitions and hypotheses would be vindicated, and even a certain degree of self-deception that he had established points more firmly than he in fact had been able to do.

His determination to persist in the face of his recognition that progress was difficult is well expressed in the following quotation:

> It is almost humiliating that, after working so long, we should still be having difficulty in understanding the most fundamental facts. But we have made up our minds to simplify nothing and to hide nothing. If we cannot see things clearly we will at least see clearly what the obscurities are. (1926a, p. 124)

One of the positive aspects of Freud's ability to be self-critical was his willingness to change his ideas:

> We must be patient and await fresh methods and occasions of research. We must be ready, too, to abandon a path that we have followed for a time, if it seems to be leading to no good end. Only believers, who demand that science shall be a substitute for the catechism they have given up, will blame an investigator for developing or even transforming his views. (1920, p. 64)

If he was not always able to live up to this brave program, if he failed to recognize that many of his unquestioned assumptions were not as axiomatically true as he thought, these are the necessary consequences of being human. Freud was surely sustained in his long quest by a passionate interest in penetrating the mysteries of nature and a capacity to care deeply about his ideas. All the more natural, therefore, that he should have tended at times

to lose scientific detachment and confuse his concepts with realities. Thus, he would refer to "the 'super-ego,' one of the later *findings* of psychoanalysis" (1900, p. 558 n. 1), or to "the *discovery* that the ego itself is cathected with libido" (1930, p. 118; emphasis added in both quotations). When I spoke above about his unquestioned assumptions, I had principally in mind the passive reflex model of the organism, which is today demonstrably false (Holt, 1965). Yet to Freud it seemed so self-evidently true that he referred to it as a fact on which he could found one of his most questionable constructs:

> The dominating tendency of mental life, and perhaps of nervous life in general, is the effort to reduce, to keep constant or to remove internal tension due to stimuli . . .—a tendency which finds expression in the pleasure principle; and our recognition of that *fact* is one of our strongest reasons for believing in the existence of death instincts. (1920, p. 55f.; emphasis added)

Another aspect of this same antithesis was Freud's conviction that the essence of what he was setting forth was *truth*, which would be fully appreciated only by future generations, versus his expectation that much of what he taught would be quickly overthrown, as in the following 1909 letter to Jung in response to the latter's expressed fear that Freud's writings would be treated as gospel:

> Your surmise that after my departure my errors might be adored as holy relics amused me enormously, but I don't believe it. On the contrary, I think my followers will hasten to demolish as swiftly as possible everything that is not safe and sound in what I leave behind. (Quoted in Jones, 1955, p. 446)

Freud showed here the strength of his faith that there were kernels of eternal truth as well as chaff in the harvest of his labors.

ANALYSIS VERSUS SYNTHESIS

Another familiar antithesis in the realm of thinking is analysis versus synthesis. Here, the preference of the inventor and namer of psychoanalysis was clear and marked. In 1915 he wrote to Lou Andreas-Salome:

> I so rarely feel the need for synthesis. The unity of this world seems to me something self-understood, something unworthy of emphasis. What interests me is the separation and breaking up into its component parts what would otherwise flow together into a primeval pulp. . . .In short, I am evidently an analyst and believe that synthesis offers no obstacles once analysis has been achieved.(1960, p. 310)

Yet in spite of the fact that the concept of the synthetic function of the ego is associated less with Freud than with Nunberg, the latter's paper by this name (Nunberg, 1931) is in large part simply a drawing together of points Freud made in passing in many contexts. Freud could perform remarkable feats of synthesizing many disconnected facts—see for example his masterly review of the scientific literature on dreams (1900, Ch. 1)—and he taught us a great deal about synthetic functioning; nevertheless, his ability and his predilection ran predominantly along the lines of analysis.

DIALECTIC DUALISM

One reason I have adopted the antithetical method in this exposition is that a preference for opposed binary concepts was itself highly characteristic of Freud's thinking. Even in the realm of art, he strongly preferred the balance of classical antiquity; a letter to Romain Rolland in 1930 speaks of his "Hellenic love of proportion" (1960, p. 392). And in his own theory, it is surely a striking and well-known fact that his major concepts come in matched opposing pairs. Perhaps the most notable is his motivational theory in its various

guises. Fairly early, he pitted unconscious wish against preconscious cathexis, then the libidinal versus the ego-instincts, going on to narcissistic versus object-libido, to Eros versus the death instincts (or love against hate); but it was always a dual drive theory. Or recall "*the three great polarities that dominate mental life*": activity—passivity, ego—external world, and pleasure—unpleasure (1915a, p. 140; emphasis Freud's), to which might be added that of masculine—feminine. Many other such oppositions come to mind: quantity versus quality, autoplastic versus alloplastic, ego-syntonic versus ego-alien, pleasure principle versus reality principle, free versus bound cathexis, and the primary process versus the secondary process. It is not difficult to show that Freud conceived of a continuous series of actual thought processes between the theoretical extremes of the primary and the secondary process, but he typically used them in a dichotomous fashion. Even when he proposed triads of concepts (*Cs*., *Pcs*., and *Ucs*.; ego, superego, and id), he had a strong tendency to reduce them to binary form. The 1923 work is, after all, entitled merely *The Ego and the Id*; and the distinction between conscious and unconscious always impressed Freud as "our one beacon-light in the darkness of depth-psychology" (1923, p. 18). Terms like ambivalence and conflict conceptualize this trait as fundamental facts of psychology. Indeed, one might argue that many of the antithetical dynamic concepts are a direct consequence of Freud's recognizing how important conflict was in both normal and pathological development.

TOLERATED CONTRADICTION (SYNTHESIS DEFERRED)

Further, Freud's thinking is characterized by an unusual tolerance for inconsistency. If you went through the works of any author as prolific as Freud, you would doubtless find many mutually contradictory statements, and many propositions that are actually

incompatible with his basic assumptions. But it is not difficult to find other reasons for the presence of inconsistencies in Freud's work besides its sheer bulk, which is enormous: his preference for what I shall expound shortly as seriatim theorizing and piecemeal empiricism, both of which are clearly to be expected from a man with an orientation away from synthesis, and a confessed sloppiness with concepts. As Jones puts it,

> He wrote easily, fluently, and spontaneously, and would have found much rewriting irksome. . . .one of his main characteristics [was] his dislike of being hampered or fettered. He loved to give himself up to his thoughts freely, to see where they would take him, leaving aside for the moment any question of precise delineation; that could be left for further consideration. (1953, p. 33f.)

True, he did rewrite and revise several of his books many times. Fortunately, the *Standard Edition* provides a variorum text and scrupulously informs us of every change, edition by edition. It is not difficult, therefore, to characterize Freud's style of revision by studying *The Interpretation of Dreams*, *The Psychopathology of Everyday Life*, and *Three Essays on the Theory of Sexuality*. These books, first published from 1900 to 1905, went through eight, ten, and six editions respectively, all of them containing additions from at least as late as 1925. Thus, they span at least two major periods in the development of Freud's thought, including a far-reaching change in models. Yet one statement covers the vast majority of the revisions: he added things. There was never any fundamental reconsideration and precious little synthesis. Perhaps if Freud had not had such a superb command of written communication so that he rarely had even to polish his first drafts, he would have reworked his books more thoroughly as they went through new editions. At most, he added an occasional footnote pointing out the incompatibility of a statement with later doctrines. Even Chapter 7 of *The Interpretation of Dreams*, Freud's most ambitious and

important theoretical work, was left virtually untouched except for interpolations, after the tinkerings of 1915 and 1917 that undid the possibility of topographical regression, even after the jettisoning of the whole topographic model in 1923 and its replacement by the structural model, which makes no provision for the conceptualization of any complete cognitive process. Indeed, to the end. Chapter 7 contained anachronistic carry-overs from the neurological model of the unpublished "Project," which had preceded it by four years. Throughout all the revisions, Freud never eliminated the lapses into references to "neurones," "pathways," and "quantity."

Freud built theory, then, much as Franklin D. Roosevelt constructed the Executive branch of the government: when something wasn't working very well, he seldom reorganized; he just supplied another agency—or concept—to do the job. To tolerate this much inconsistency surely took an unusual capacity to delay the time when the gratification of an orderly, internally consistent, logically coherent theory might be attained. Compare his self-characterization in the following letter to Andreas-Salome in 1917; he had been contrasting himself with "the system-builders" Jung and Adler.

> . . . you have observed how I work, step by step, without the inner need for completion, continually under the pressure of the problems immediately on hand and taking infinite pains not to be diverted from the path. (1960, p. 319)

Seven years earlier, he had written to Jung:

> I notice that you have the same way of working as I have: to be on the look out in whatever direction you feel drawn and not take the obvious straightforward path. I think that is the best way too, since one is astonished later to find how directly those circuitous routes led to the right goal. (Quoted in Jones, 1955, p. 449)

To follow one's nose empirically, adding to the theory whatever bits and pieces might

accrue along the way—this was the procedure with which Freud felt at home, with his faith that ultimately the truth would prevail.

CONCEPTION OF SCIENTIFIC METHOD AND CONCEPTS

This attitude was of a piece with Freud's basic conception of scientific work. Science was first and foremost a matter of empirical observation, which he usually contrasted with speculation to the latter's discredit. As Freud conceived it, a speculative, or philosophical, system started with "clear and sharply defined basic concepts," (1915a, p. 117) and built on this "smooth, logically unassailable foundation" (1914, p. 77) a "complete and ready-made theoretical structure," (1923, p. 36) which could "easily spring into existence complete, and thereafter remain unchangeable" (1906, p. 271). But "no science, not even the most exact," operates this way:

> The true beginning of scientific activity consists rather in describing phenomena and then in proceeding to group, classify and correlate them. Even at the stage of description it is not possible to avoid applying certain abstract ideas to the material in hand, ideas derived from somewhere or other but certainly not from the new observations alone. . . .They must at first necessarily possess some degree of indefiniteness; . . .we come to an understanding about their meaning by making repeated references to the material of observation from which they appear to have been derived, but upon which, in fact, they have been imposed. . . . It is only after more thorough investigation of the field of observation that we are able to formulate its basic scientific concepts with increased precision, and progressively so to modify them that they become serviceable and consistent over a wide area. Then, indeed, the time may have come to confine them in definitions. The advance of knowledge, however, does not tolerate any rigidity even in definitions. (1915a, p. 117)

When tackling a new topic, therefore:

> Instead of starting from a definition, it seems more useful to begin with some indication

> of the range of the phenomena under review, and to select from among them a few specially striking and characteristic facts to which our enquiry can be attached. (1921, p. 72)

Thereafter, any psychoanalytic inquiry must

> . . .find its way step by step along the path towards understanding the intricacies of the mind by making an analytic dissection of both normal and abnormal phenomena. (1923. p. 36)

But because of the complexity of its subject matter, psychoanalysis cannot hope for quick successes:

> The extraordinary intricacy of all the factors to be taken into consideration leaves only one way of presenting them open to us. We must select first one and then another point of view, and follow it up through the material as long as the application of it seems to yield results. Each separate treatment of the subject will be incomplete in itself, and there cannot fail to be obscurities where it touches upon material that has not yet been treated; but we may hope that a final synthesis will lead to a proper understanding. (1915b, p. 157f.)

The truth, when attained, will be simpler:

> ... we have no other aim but that of translating into theory the results of observation, and we deny that there is any obligation on us to achieve at our first attempt a well-rounded theory which will commend itself by its simplicity. We shall defend the complications of our theory so long as we find that they meet the results of observation, and we shall not abandon our expectations of being led in the end by those very complications to the discovery of a state of affairs which, while simple in itself, can account for all the complications of reality. (1915c, p. 190)

Freud thus demonstrated a capacity to tolerate, in addition to inconsistency and delay, considerable conceptual indefiniteness or, in the terminology of today, ambiguity. “It is true,” he was ready to admit, “that notions such as that of an ego-libido, an energy of the

ego-instincts, and so on, are neither particularly easy to grasp, nor sufficiently rich in content." Nevertheless, psychoanalysis would "gladly content itself with nebulous, scarcely imaginable basic concepts, which it hopes to apprehend more clearly in the course of its development, or which it is even prepared to replace by others" (1914, p. 77). Note the obligation stated here, which follows clearly enough from his position regarding definition, for a periodic conceptual stocktaking; if consistent and useful definitions never precipitate out, the concept should be abandoned. As we have seen, however, such a process of regular review was quite incompatible with Freud's style of working and thinking, and he rarely discarded concepts when he added new ones. It is a little sad, but not surprising, to find that instincts, which in 1915 (1915a, p. 117f.) were "at the moment . . . still somewhat obscure," were characterized 18 years later as "mythical entities, magnificent in their indefiniteness" (1933, p. 95).

A few years ago, I decided to try my hand at this winnowing process, taking one of Freud's central but tantalizingly ill-defined concepts (the binding of cathexis; see Holt, 1962) and following it through his writings to see what kind of definition emerged. The labor of finding and collating the contexts in which it occurred, and educing the 14 different meanings that I was able to discern—I have found still others since then!—was great enough to make me realize that if Freud had undertaken to work his own theories over continuously in this way, after a few years he would not have had time to analyze any more patients, much less write anything new. It is true, I was able to sift out a core meaning to my own satisfaction, but it remains to be seen whether many psychoanalysts will be convinced that they should abandon the other dozen or so types of usage. With Freud's free-and-easy example for precedent, some find it easy to justify putting off the evil day

when terms will start to have definite, restrictive meanings.

So far, I have emphasized the knowingly provisional, tentative nature of Freud's theorizing, his deliberate abjuring of any attempt to build a complete and internally coherent system, in favor of piecemeal empiricism instead—quite a contrast to the view of Freud as the dogmatic systematist who would brook no deviation from a rigid "party line'' of theory! Yet this popular conception has its roots in fact also. For one thing, Freud seems to have had a fluctuating, never explicit set of standards about what parts of psychoanalysis had been proved, which only he might change with impunity, and what parts were modifiable by others. True to his agglutinative principle of revision, he welcomed additions so long as they did not explicitly call for reconsideration of concepts and propositions that had come to seem basic and necessary. Thus, Adler's ideas about organ inferiority and the will to power were acceptable until the disciple started insisting that they clashed with the libido theory and demanded the latter's drastic revision.

STYLE OF THEORIZING

Quite aside from Freud's relation to the contributions of others (a matter that is obviously a great deal more complicated than the above brief discussion might seem to imply), there are bases for the conception of Freud as a doctrinaire dogmatist in certain stylistic peculiarities of his own theorizing. Let me summarize first and then expand, with examples. Freud was fond of stating things "as it were, dogmatically—in the most concise form and in the most unequivocal terms" (1940, p. 144); indeed, hyperbole was one of his favorite rhetorical devices. When he thought that he glimpsed a law of nature, he stated it with sweeping universalism and generality. He was likewise fond of extending concepts to

the limit of their possible applicability, as if stretching the realm of phenomena spanned by a concept was a way to make it more abstract and useful. His device for escaping the dangers of oversimplification to which this pattern exposed him was to follow one flat statement with another that qualified it by partial contradiction. Therefore, the inconsistency in many of Freud's propositions is only apparent. He was perfectly well aware that one statement undid another, and used such sequences as a way of letting a richly complicated conception grow in the reader's mind as considerations were introduced one at a time.

Here, then, is one reason why Freud is at once so delightfully easy to read, and so easy to misunderstand, particularly when statements are taken out of context. His view of human behavior was unusually subtle, complex, and many-layered; if he had tried to set it forth in sentences of parallel complexity and hierarchical structure, he would have made Dr. Johnson look like Hemingway. Instead, he writes simply, directly, forcefully; he dramatizes by grand overstatement, setting out in hard black outlines what he considers the basic truth about a matter as the reader's initial orientation. Then he fills in shadows; or, by another boldly simple stroke, suddenly shows that forms are disposed on different planes. Gradually, a three-dimensional reality takes shape before the eyes of the one who knows how to read Freud.

Here is an example of an initial flat statement, followed by qualifications:

> The way in which dreams treat the category of contraries and contradictories is highly remarkable. It is simply disregarded. 'No' seems not to exist so far as dreams are concerned. (1900, p. 318)
>
> I have asserted above that dreams have no means of expressing the relation of a

> contradiction, a contrary or a 'no.' I shall now proceed to give a first denial of this assertion. |The idea of 'just the reverse' is plastically represented as something turned around from its usual orientation.) (p. 326)
>
> ... the ''not being able to do something" in this dream was a way of expressing a contradiction—a 'no'—; so that my earlier statement that dreams cannot express a "no" requires correction, (p. 337)
>
> (A third "denial" appears on p. 434.)

Perhaps an even more familiar sweeping generalization is the following:

> Psycho-analysis is justly suspicious. One of its rules is that *whatever interrupts the progress of analytic work is a resistance.* (1900, p. 517)

Less often quoted is Freud's footnote, in which he makes this statement—so infuriating to many an analyzand!—more palatable; it is

> . . . easily open to misunderstanding. It is of course only to be taken as a technical rule, as a warning to analysts. It cannot be disputed that in the course of an analysis various events may occur the responsibility for which cannot be laid upon the patient's intentions. His father may die without his having murdered him; or a war may break out which brings the analysis to an end. But behind *its obvious exaggeration* the proposition is asserting something both true and new. Even if the interrupting event is a real one and independent of the patient, it often depends on him how great an interruption it causes; and resistance shows itself unmistakably in the readiness with which he accepts an occurrence of this kind or the exaggerated use which he makes of it. (emphasis added)

All too often (and unfortunately difficult to illustrate by quotation), the softening statement following the initial overgeneralization is not explicitly pointed out, may not follow very soon, or is not obviously related. For Freud, however, this was a conscious strategy of scientific advance; the transformations of scientific opinion are developments,

not revolutions. A law which was held at first to be universally valid proves to be a special case of a more comprehensive uniformity, or is limited by another law, not discovered till later; a rough approximation to the truth is replaced by a more carefully adapted one, which in turn awaits further perfecting (cf. 1927, p. 55).

Many examples of statements formulated with arresting exaggeration can easily be cited.

> On the basis of our analysis of the ego it cannot be doubted that in cases of mania the ego and the ego ideal have fused together. (1921, p. 132)
>
> . . . hysteria . . . is concerned only with the patient's repressed sexuality. (1906, p. 278)
>
> . . . no one can doubt that the hypnotist has stepped into the place of the ego ideal. (1921, p. 114)
>
> It is certain that much of the ego is itself unconscious, and notably what we may describe as its nucleus; only a small part of it is covered by the term "preconscious." (1920, p. 19)

Strachey appends the following rather amusing footnote to the above passage:

> In its present form this sentence dates from 1921. In the first edition (1920) it ran: "It may be that much of the ego is itself unconscious; only a part of it, probably, is covered by the term 'preconscious'."

In this case, it took only a year for a cautious probability to become a certainty.

In other instances, hyperbole takes the form of the assertion of an underlying unity where only a correlation is observed:

> All these three kinds of regression [topographical, temporal, and formal] are, however, one at bottom and occur together as a rule; for what is older in time is more primitive in form and in psychical topography lies nearer to the perceptual end. (1900, p. 548)

All too often, the sweeping formulation takes the form of a declaration that something like the Oedipus complex is *universal*. I believe that Freud was less interested in making an empirical generalization from his limited data than in groping in this way for a basic law of nature. As Jones summarizes the letter of October 15, 1897, to Fliess,

> He had discovered in himself the passion for his mother and jealousy of his father; he felt sure that this was a general human characteristic and that from it one could understand the powerful effect of the Oedipus legend. (Jones, 1953, p. 326)

Again, four years later, he generalized universally from his own case:

> There thus runs through my thoughts a continuous current of 'personal reference,' of which I generally have no inkling, but which betrays itself by such instances of my forgetting names. It is as if I were obliged to compare everything I hear about other people with myself; as if my personal complexes were put on the alert whenever another person is brought to my notice. This cannot possibly be an individual peculiarity of my own: it must rather contain an indication of the way in which we understand "something other than ourself" in general. I have reasons for supposing that other people are in this respect very similar to me. (1901, p. 24)

To the contemporary psychologist, trained to be cautious in generalizing from small samples, it seems audacious to the point of foolhardiness to jump from self-observation to a general law. But Freud was emboldened by the very fact that he was dealing with vital issues:

> I feel a fundamental aversion towards your suggestion that my conclusions [about the sexual etiology of neurosis] are correct, but only for certain cases. . .That is not very well possible. Entirely or not at all. They are concerned with such fundamental matters that they could not be valid for one set of cases only. . . .There is only our kind or else nothing at all is known. An fond you must be of the same opinion. So now I have confessed all my fanaticism! (Letter to Jung, April 19, 1909; in Jones, 1955, p. 439)

Remember, also, the fact that Freud's initial scientific efforts considerably antedated the invention of statistics, sampling theory, or experimental design. In his early days, when he was most secure in his role as scientist, Freud was studying neuroanatomy at the microscope, and like his respected teachers and colleagues, generalizing freely and automatically from samples of one!

Then too, recall that Freud was the promulgator of the principle of exceptionless determinism in psychology: all aspects of behavior were lawful, he believed, which made it easy for him to confuse (a) the universal applicability of abstract laws and concepts with (b) the universal occurrence of empirically observable behavioral sequences.

Finally, we are so used to considering Freud a "personality theorist'' that we forget how little interested he was in individual differences as against general principles. He once wrote to Abraham:

> "Personality'' . . . is a rather indefinite expression taken from surface psychology, and it doesn't contribute much to our understanding of the real processes, i.e. metapsychologically. (Quoted in Jones, 1955, p. 438)

Despite the fact that he wrote great case histories, he used them to illustrate his abstract formulations, and had no conviction about the scientific value or interest of the single case except as a possible source of new ideas.

The inclination to generalize sweepingly may be seen also in Freud's tendency to stretch the bounds of his concepts. The best-known, not to say most notorious example, is that of sexuality. In his earliest papers, the "sexual etiology of neurosis'' meant literal seduction, always involving the stimulation of the genitals. Rather quickly, in the *Three*

Essays, the concept was expanded, first to include all of the "partial drives," based on the oral, anal, and phallic-urethral erogenous zones, plus the eye (for voyeurism and exhibitionism). But as he found cases in which other parts of the body seemed to serve the function of sexual organs, Freud extended the concept of erogenous zone to include the proposition that all parts of the skin, plus all the sensitive internal organs, might give rise to sexual excitation. Further, "all comparatively intense affective processes, including even terrifying ones, trench upon sexuality" (1905b, p. 203); and finally:

> It may well be that nothing of considerable importance can occur in the organism without contributing some component to the excitation of the sexual instinct, (p. 205)

A similar process seems to have gone on in Freud's blurring of the distinctions among the various ego instincts, and that between ego instincts and narcissistic libido, which was resolved by his finally putting everything together in the notion of Eros, the life instinct.

METHOD OF WORK

Having so far surveyed some of the general features of Freud's thinking and his style of scientific theorizing, let us now ask how he worked with his data. So far, we have seen only that he stressed *observation* as the primary tool of scientific empiricism. His most important patient, let us remember, was himself. In his self-analysis (particularly during the late 1890's), he made his fundamental discoveries: the meaning of dreams, the Oedipus complex, childhood sexuality, and so forth. This fact should remind us of his gift for self-observation. It was of course the age of trained introspection as a scientific method of the academic psychologists; but that was something else again. Freud's self-observation was of that kind we call psychologically-minded; he was no phenomenologist, curious about the

raw givens of experience or interested in analyzing the data of consciousness in their "presentational immediacy'' (Whitehead). Even when looking inward, he tried to penetrate the surface of what he found there, to look for causes in terms of wishes, affects, hopes, fantasies, and the residues of childhood emotional experiences. Consider how little one ever heard of such matters from Wundt or Titchener, and it becomes apparent that Freud's cognitive style played a role in his unique use of a common instrument.

Observation, when applied to his other patients, meant first of all the use of free association. The patient was encouraged to report everything about himself without censorship, so that the analyst might observe directly the struggle to comply with this seemingly simple request, and observe indirectly the broadest range of important life experiences as reported. But these therapeutically significant facts, and the even more important manifestations of the transference that developed in the actual interpersonal situation of treatment, were typically buried in a haystack of trivial details. Freud accordingly had to develop himself into a highly selective instrument which at the same time was as much as possible free of bias. The solution he adopted, that of an "evenly-suspended attention'' (1912a, p. 111), matched in its seeming unselectiveness the attitude urged on the freely associating patient; in both, the theory affirmed that the process of suspending conventional standards of conscious judgment would let unconscious forces guide the production and the reception of the data. Only a man with a basic trust in the depths of his own being would have been willing to let his conscious intelligence partially abdicate in this manner.

The principal activity of the analyst, Freud indicated, was offering *interpretations* of the

patient's productions. In a way, these constitute a first level of conceptualization (that is, a first processing of data) as well as an intervention that was calculated to produce further and altered material from the patient. In the later processing of the accumulated data on a case, and indeed of other types of data, interpretation plays a crucial role; in some respects, it is what gives psychoanalysis its unique character as a mode of inquiry into human behavior. Whether Freud offered the interpretation to the patient or merely used it in his formulation of the essential features of the case, it often took the *genetic* form of a historical reconstruction of sequences of critical events in the patient's past. Here we see a characteristic feature of Freud's thinking: the use of historical (rather than ahistorical) causality. Since Kurt Lewin, the fashion in psychology has been strongly in favor of ahistorical causality, though the historical form has recently been vigorously argued in a highly sophisticated way (Culbertson, 1963).

As Freud used interpretation in the narrower sense, it was essentially a process of translation, in which meanings in the patient's behavior and words were replaced by a smaller set of other meanings according to more or less specifiable rules (Holt, 1961). But these rules were loose and peculiar, for they incorporated the assumption that the patient's communications had been subjected to a set of (largely defensive) distortions according to the irrational primary process. The analyst's job, therefore, was to reverse the distortions in decoding the patient's productions in order to discern the nature of his unconscious conflicts and his modes of struggling with them. It is thus a method of discovery. With the minor exception of a number of recurrent symbols, the rules for such decoding can be stated in only general terms, and a great deal is left to the analyst's creative use of his own primary process.

Interpretation is therefore obviously difficult to use and easy to abuse, as Freud knew full well. One of his favorite criticisms of dissident former followers was that *their* interpretations were arbitrary or farfetched.

What, then, were his criteria for distinguishing deep and insightful from merely strained and remote interpretations? The most detailed discussions that I have found of this question date back to the middle 1890's, when Freud was defending his theory that neurosis was caused by the repressed trauma of actual sexual seduction in infancy. He gave a number of criteria, like the kind and amount of affect and resistance shown, by which he satisfied himself that the interpretations (or historical constructions) that he offered his patients along these lines were valid, and for believing the reports by some of them that initially stimulated him to essay this approach. Yet as we know, none of those presumed safeguards was sufficient; Freud finally decided to reject the "recollections" as fantasies. To this day, providing criteria for evaluating interpretations remains one of the major unsolved methodological problems in all schools of psychoanalysis.

METHOD OF PROVING POINTS (VERIFICATION)

Once he had made his interpretations and genetic explanations of his various types of data to his own satisfaction, Freud had formed his principal hypotheses. Now he set about proving them. Let us examine the ways he attempted to establish his points by marshaling his evidence and his arguments.

Surprisingly, he often used what is essentially statistical reasoning to make his points. True, it generally takes the simple form of assuring the reader that he has seen the phenomenon in question repeatedly:

> If it were a question of *one* case only like that of my patient, one would shrug it aside. No one would dream of erecting upon a single observation a belief which implies taking such a decisive line. But you must believe me when I assure you that this is not the only case in my experience. (1933, p. 42)

Many psychologists seem to have the impression that Freud frequently based major propositions on single cases; but I have carefully searched all his major case histories for instances, and have found none.[5] He wrote as early as the case of Dora, "A single case can never be capable of proving a theorem so general as this one" (1905c, p. 115). In his earliest psychoanalytic papers, Freud again and again quoted such statistics as the following:

> . . . my assertion . . . is supported by the fact that in some eighteen cases of hysteria I have been able to discover this connection in every single symptom, and, where the circumstances allowed, to confirm it by therapeutic success. No doubt you may raise the objection that the nineteenth or the twentieth analysis will perhaps show that hysterical symptoms are derived from other sources as well, and thus reduce the universal validity of the sexual aetiology to one of eighty per cent. By all means let us wait and see; but, since these eighteen cases are at the same time *all* the cases on which I have been able to carry out the work of analysis and since they were not picked out by anyone for my convenience, you will find it understandable that I do not share such an expectation but am prepared to let my belief run ahead of the evidential force of the observations I have so far made. (1896, p. 199f.)

Boring (1954) has pointed out that in such a use of statistical reasoning as this, Freud did not advance beyond Mill's method of agreement, which is his most elementary and least trustworthy canon of induction. In the paper I have just quoted, Freud considered the possibility of using the essence of Mill's recommended joint method of agreement and

[5] See above, however, for examples of his generalizing freely from self-observation. Apparently, the inherently compelling nature of introspective data overrode his general caution.

disagreement. It will be objected, he says, that many children are seduced but do not become hysterical, which he allows to be true without undermining his argument; for he compares seduction to the ubiquitous tubercle bacillus, which is "inhaled by far more people than are found to fall ill of tuberculosis" (p. 209), yet the bacillus is the specific determinant of the disease—its necessary but not sufficient cause. He considered the possibility that there may be hysterical patients who have not undergone seduction but quickly dismissed it; such supposed instances had not been psychoanalyzed, so the allegation had not been proved. In the end, therefore, Freud simply argued his way out of the necessity to consider any but his own positive cases, and was thus unable to use statistical reasoning in any cogent or coercive way.

In point of fact, references in his papers to numbers of cases treated dropped out almost entirely after 1900; instead, one finds confident quasi-quantitative claims of this kind: "This discovery, which was easy to make and could be confirmed as often as one liked . . ." (1906, p. 272), or such severe admonitions as this:

> The teachings of psychoanalysis are based on an incalculable number of observations and experiences, and only someone who has repeated these observations on himself and on others is in a position to arrive at a judgment of his own upon it. (1940, p. 144)

In the long quotation from 1896 just above, note the entry of another characteristic mode of argument often used by Freud: the theory is proved by its therapeutic successes. Sometimes it is stated with what we have seen to be characteristic hyperbole:

> The fact that in the technique of psycho-analysis a means has been found by which the opposing force [of anticathexis in repression] can be removed and the ideas in question made conscious renders this theory irrefutable. (1923, p. 14)

I could quote many passages in which the same general type of argument is made: Freud cites as "proof" or as "confirmation" a set of circumstances that does serve to enhance the probability that the statement made is true, but does not nail it down in a rigorous way. The ultimate means of proof, for Freud, was the simple ostensive one:

> We are told that the town of Constance lies on the Bodensee. A student song adds: "if you don't believe it, go and see.'' I happen to have been there and can confirm the fact … (1927, p. 25)

In many places, Freud applied this basic principle of reality testing to psychoanalysis—if you don't believe, go and see for yourself; and until you have been analyzed and, preferably, also have been trained to carry out psychoanalyses of others yourself, you have no basis to be skeptical.

Freud did not see that the promulgator of an assertion takes on himself the burden of proving it. It is doubtful that he ever heard of the null hypothesis; surely he had no conception of the sophisticated methodology that this strange term connotes. In several places, he, as it were, quite innocently reveals his unawareness that for empirical propositions to be taken seriously, they should be in principle refutable. For example, after asserting that "*a wish which is represented in a dream must be an infantile one*," (1900, p. 553; emphasis is Freud's), he remarks:

> I am aware that this assertion cannot be proved to hold universally; but it can be proved to hold frequently, even in unsuspected cases, and it cannot be *contradicted* as a general proposition. (1900, p. 554)

At least, in this passage he showed the realization that a universal proposition cannot be proved; yet later he was to refer to another such

> rule laid down in *The Interpretation of Dreams* . . . [as] since confirmed beyond all doubt, that words and speeches in the dream-content are not freshly formed . . . (1917, p. 228)

True, every fresh instance of a claimed universal proposition does strengthen its credibility and the probability that it is trustworthy. If we keep in mind that nothing more is meant in psychoanalytic writing by claims of proof, we shall be on relatively safe ground.

Freud did not usually write as if he were familiar with the distinction between forming hypotheses and testing them. Yet he was aware of it, and at times was modest enough about the exploratory nature of his work:

> Thus this view has been arrived at by inference; and if from an inference of this kind one is led, not to a familiar region, but on the contrary, to one that is alien and new to one's thought, one calls the inference a "hypothesis" and rightly refuses to regard the relation of the hypothesis to the material from which it was inferred as a "proof" of it. It can only be regarded as "proved" if it is reached by another path as well [N.B.: cross-validation!] and if it can be shown to be the nodal point of still other connections. (1905a, p. 177f.)

I have examined Freud's methods of arraying his data and reasoning about them in the attempt to prove his points in two ways: by making a general collection whenever I came across instances where he drew conclusions explicitly, and by a careful scrutiny of all his arguments for the concept of a psychic unconscious in two of his major papers, "A Note on the Unconscious in Psychoanalysis" (1912b) and "The Unconscious" (1915c). It would be tedious and time-consuming to document my analyses of his modes of argument; I shall merely give my conclusion.

It is, quite simply, that Freud seldom *proved* anything in a rigorous sense of the word.

He rarely subjected hypotheses to the kind of cross-validational check that he advocated in the last passage quoted. He is often convincing, almost never coercively so. He was quite ready to use devices he spoke of slightingly in his sharp critiques of the reasoning used by his opponents: the authoritative dictum, begging the question, arguments by analogy, and retreats to the discussion of "matters which are so remote from the problems of our observation, and of which we have so little cognizance, that it is as idle to dispute . . . as to affirm" them (1914, p. 79).

Actually, what Freud does is to make use of all the resources of rhetoric. He backs up a general statement by a telling example in which it is clearly operative; he constructs plausible chains of cause and effect (after the principle of *post hoc ergo propter hoc*), he argues a fortiori; and he uses enthymemes to draw reasoned conclusions. An enthymeme corresponds in rhetoric to the syllogism in logic.[6] In it, one premise is often but not necessarily suppressed, and, unlike the syllogism, it is a method of establishing probable rather than exact or absolute truth.

Further, he seeks to win our agreement by a disarming directness of personal address, and by stepping into the role of the opponent to raise difficult arguments against himself, after which his points in refutation seem all the more telling. His writing is vivid with metaphor and personification, with flashes of wit, poetical flights into extended analogies or similes, and many other such devices to avoid a consistently abstract level of discourse. When the line of reasoning in a number of his enthymemes in "The Unconscious" is

[6] For examples, see the passages quoted from Freud (1901, on p. 45 above, and the next passage quoted, on p. 46). above.

carefully explicated, it is surprisingly weak and involves several *non sequiturs*. In his attempts to refute others, he frequently made use of the rhetorical device of making the other's argument appear improbable by appealing to its implausibility to common sense and everyday observation.

> In the first place, he [Rank] assumes that the infant has received certain sensory impressions, in particular of a visual kind, at the time of birth, the renewal of which can recall to its memory the trauma of birth and thus evoke a reaction of anxiety. This assumption is quite unfounded and extremely improbable. It is not credible that a child should retain any but tactile and general sensations relating to the process of birth. (1926a, p. 135)

USE OF FIGURES OF SPEECH

Because I have a special interest in figures of speech, I paid particular attention to the way Freud used this rhetorical device. The editors of the *Standard Edition* have made the task relatively easy by index entries, for each volume, under the heading "Analogies." Picking two volumes more or less at random (XII and XIV), I looked up the 31 analogies so indexed and attempted to see in what way Freud employed them.

As one professor of rhetoric (Genung, 1900) has said, "The value both of example and of analogy is after all rather illustrative than argumentative; they are in reality instruments of exposition, employed to make the subject so clear . . . that men can see the truth or error of it for themselves." For the most part, in these two volumes Freud used analogies as "instruments of exposition," included *after* an argument had been completely stated in its own terms, to add lively, visualizable concreteness; some of them are little jokes, adding a touch of comic relief to lighten the reader's burden. At times, however, the analogy moves into the mainstream of the argument and serves a more direct rhetorical purpose; this is

true, surprisingly enough, a good deal more often in Vol. XIV, which contains the austere metapsychological papers, than in Vol. XII, largely devoted to the case of Schreber and the papers on technique. It turns out, however, that the argumentative use of analogy occurs largely in the polemical passages where Freud is attempting to refute the principal arguments with which Jung and Adler severed their ties to classical psychoanalysis; mostly, it takes the form of ridicule, a form of discrediting an opponent by making his argument appear ludicrous rather than meeting it on its own grounds. It is not difficult to understand how angry Freud must have felt at the apostasies in rapid succession of two of his most gifted and promising adherents, so that strong affect had its usual effect of degrading the level of argument.

Freud used analogies in two other kinds of ways in the metapsychological papers, however. In a few instances, the analogy seems to have played the role of a model. That is, when he wrote that "The complex of melancholia behaves like an open wound, drawing to itself . . . 'anticathexes' . . . from all directions, and emptying the ego until it is totally impoverished'' (1917, p. 253), he revived an image that he had used in an unpublished draft, written and sent to Fliess 20 years earlier (1887-1902, p. 107f.); moreover, he was to use it again five years later in the theory of traumatic neurosis (1920, p. 30). Interestingly enough, in none of these versions did Freud say explicitly what there is about a wound that makes it a useful analogue. Obviously, however, he had in mind the way that leucocytes gather around the margins of a physical lesion, a medical mechanism of defense that may well be a principal ancestor of the concept of psychic defense mechanisms. Surely it formed an important pattern of Freud's thought, one that directly influenced the kinds of psychological constructs he invoked and some of what he did with them.

The other use of an extended figure of speech does not employ an analogy in the strict sense and so is not indexed. (Indeed, the vast majority of Freud's analogies are not indexed; only the protracted ones that resemble epic similes. But the text is so dense with tropes of one kind or another that a complete index would be impractically enormous.) I am referring to an example of a characteristic Freudian device, the "scientific myth," as he called the best-known example, the legend of the primal horde. Near the beginning of "Instincts and their Vicissitudes" (1915a), after considering the drive concept quite abstractly from the standpoint of physiology, and in relation to the concept of "stimulus," he suddenly says:

> Let us imagine ourselves in the situation of an almost entirely helpless living organism, as yet unorientated in the world, which is receiving stimuli in its nervous substance, (p. 119)

What an arresting image! And note that this is no mere conventional figure of speech, in which man is compared point by point to a hypothetical primitive organism. Instead, here we are given an invitation to *identification*. Freud encourages us to anthropomorphize, to picture how it would be if we, as adult and thinking people, were in the helpless and exposed position he goes on to sketch so graphically. It seems natural, therefore, when he easily attributes to the little animalcule not only consciousness but self-awareness—an attribute we realize, on sober reflection, to be a uniquely human and rather sophisticated achievement. His introductory phrase, however, invites us at once to suspend disbelief and waive the usual rules of scientific thinking. It's like a child's "let's pretend''; it leads us to expect that this is not so much a way of pushing his argument forward as a temporary illustrative digression; like his usual analogies, a pictorial holiday from hard theoretical

thinking. We soon discover that he uses this suspension of the rules as a way of allowing himself a freedom and fluidity of reasoning that would not otherwise be acceptable. And yet he proceeds thereafter as if the point had been proved in a rigorous way.

The conception of a completely vulnerable organism swimming in a sea of dangerous energies was another recurrent image that seems to have made a profound impression on Freud. It plays an even more critical role in the development of his argument in *Beyond the Pleasure Principle*, though it is introduced in a somewhat soberer fashion ("Let us picture a living organism in its most simplified possible form as an undifferentiated vesicle of a substance that is susceptible to stimulation"; 1920, p. 26). Yet he does not explicitly present it as a hypothesis about the nature of the first living organism; in fact, it never becomes quite clear just what kind of existential status this "vesicle" has. Freud proceeds with some digressions to suppose that the organism would be killed by the "most powerful energies" surrounding it if it remained unprotected, and that the cooking of its outer layer formed a crust that protected what lay underneath. Suddenly, Freud takes a mighty leap from this original, partly damaged living cell: "In highly developed organisms the receptive cortical layer of the former vesicle has long been withdrawn into the depths of the interior of the body, though portions of it have been left behind on the surface immediately beneath the general shield against stimuli" (p. 27f.). Implicitly, he has assumed that his unicellular Adam has been fruitful and has populated the earth, always passing along its original scabs by the inheritance of acquired characters.

Just when you think that Freud is presenting a highly fanciful, Lamarckian theory about the origin of the skin, he switches the metaphor. First, however, he hypothesizes that "The

specific unpleasure of physical pain is probably the result of the protective shield having been broken through . . . Cathectic energy is summoned from all sides to provide sufficiently high cathexes of energy in the environs of the breach. An 'anticathexis' on a grand scale is set up, for whose benefit all the other psychical systems are impoverished" (p. 30). Along about here, the sharp-eyed reader will do a double take: it sounded as if Freud was talking about a physical wound in the skin, but what gets summoned to its margins is not the white blood cells but quanta of psychic energy! Then on the next page, we learn that "preparedness for anxiety and the hypercathexis of the receptive systems constitute the last line of defense of the shield against stimuli " (p. 31). This shield, which seemed so concrete and physical, turns out to be a metaphor wrapped in a myth.

It is true that this whole fourth chapter was introduced by the following disarmingly candid paragraph:

> What follows is speculation, often far-fetched speculation, which the reader will consider or dismiss according to his individual predilection. It is further an attempt to follow out an idea consistently, out of curiosity to see where it will lead. (1920, p. 24)

In light of the later development of Freud's theories, in which as we have seen he came to lean on this curious tissue of speculations as if it were a stoutly supportive fabric, it seems that this modest disclaimer is another "let's pretend,'' so that Freud, like Brittania, may waive the rules.

FREUD'S RHETORIC

The upshot of this survey of the means Freud used in his search after truth is that he relied heavily on all the classical devices of rhetoric. The effect is not to prove, in any rigorous sense, but to persuade, using to some extent the devices of an essayist but even

more those of an orator or advocate, who writes his brief and then argues the case with all the eloquence at his disposal. Notice that I have based this conclusion primarily on a survey of Freud's most technical, theoretical papers and books. In such masterly works for the general reader as his various series of introductory lectures (1916-17; 1933) or *The Question of Lay Analysis* (1926b), the rhetorical form is even more explicit; the last named work is actually cast in the form of an extended dialogue, harking directly back to the classic Greek texts of which Freud was so fond.

There is a tendency today to take "rhetoric" as a slightly pejorative term. Except in the minds of the Platonists, it had no such connotation in classical times. As Kennedy (1963) points out,

> One of the principal interests of the Greeks was rhetoric. . . . In its origin and intention rhetoric was natural and good: it produced clarity, vigor and beauty, and it rose logically from the conditions and qualities of the classical mind. Greek society relied on oral expression. . . . Political agitation was usually accomplished or defeated by word of mouth. The judicial system was similarly oral . . . All literature was written to be heard, and even when reading to himself a Greek read aloud (p. 3f.)

Rhetoric, as the theory of persuasive communication, was necessarily a good deal more than that; it was the only form of *criticism* in Greek thought. In one of Aristotle's definitions, rhetoric is "a process of criticism wherein lies the path to the principles of all inquiries" (*Topics I*; quoted in McBurney, 1936, p. 54).

Since science was not as sharply differentiated from other methods of seeking truth then as it later became, rhetoric was the closest thing to scientific methodology that the Greeks had. In Artistotle's presentation, there were two kinds of truth: exact or certain, and probable. The former was the concern of science, which operated by means of syllogistic

logic or complete enumeration. All other kinds of merely probabilistic knowledge were the realms of argumentative inquiry, which operated by means of dialectic and rhetoric. But the only discipline to which Aristotle's criterion of "unqualified scientific knowledge" applies is mathematics (today construed to include symbolic logic); only in such a purely formal science can strict deductive procedure be used and certainty attained.

I go into this much detail about Greek rhetoric because it suggests to me a possibly illuminating hypothesis. About all I can do to make it plausible is to point out that Freud did know Greek well and read the classics in the original; and among the five courses or seminars he took with Brentano was one on Logic and at least one on "The philosophy of Aristotle" (Bernfeld, 1951). If Freud received any formal training in methodology, the critical philosophy of science, it was with the Aristotelian philosopher-psychologist Brentano. I have not found anywhere in Freud's works any reference to Aristotle's *Rhetoric* or any direct evidence that he knew it; the best I can do is to offer these bits of circumstantial evidence (or, as Aristotle would have put it, to make an argument from signs). It is, then, possible that Freud was in this way introduced to the devices of rhetoric and enthymemetic or probabilistic reasoning as the legitimate instruments of inquiry into empirical matters. His rejection of speculative, deductively exact system-building may indicate that he was accepting the Aristotelian dichotomy between exact (or mathematical) and probable truth and choosing to work in the real and approximate world where rhetoric was the appropriate means of approaching an only relative truth.

The way I have put this point of view deliberately blurs a fine but important distinction between two kinds of probabilism: that of rhetoric, in which the technical means of

plausible reasoning are used to enhance in the mind of the listener the subjective probability that the speaker's thesis is true; and that of modern skeptical science, which uses the most exact and rigorous methods possible to measure the probability of a thesis—that is, the amount of confidence we can have that it is a good approximation to a reality that can be approached only asymptotically. For the former, proof is the establishment of belief; for the latter, verification is the rejection of a surely false null hypothesis and the temporary acceptance of an alternative as the best one available at the moment. I do not believe that Freud saw this distinction clearly; at any rate, he did not write as if he thought in these terms.

Surely he was a superb rhetorician, whether he was a conscious one or not. He was a master of all its five parts, of which we have discussed so far primarily aspects of the first, invention, which includes the modes of proof: direct evidence, argumentation from the evidence, and indirect means of persuasion by the force of personal impression or presence (*ethos*) or by "the emotion he is able to awaken by his verbal appeals, his gestures," etc. (*pathos*) (Kennedy, 1963, p. 10). Freud's excellence at ethos and pathos, and at the last two of the parts, memory and delivery, is described by Jones:

> He was a fascinating lecturer. The lectures were always enlightened by his peculiar ironic humor . . . He always used a low voice, perhaps because it could become rather harsh if strained, but spoke with the utmost distinctness. He never used any notes, and seldom made much preparation for a lecture . . .

The adoring biographer goes on to state that "He never used oratory," but he seems to be using the term in the modern sense as synonymous with bombast, which was surely not what the ancient Greeks meant. What Jones's description conveys is a very effective kind of

personal presence. Freud

> talked intimately and conversationally . . . One felt he was addressing himself to us personally . . . There was no flicker of condescension in it, not even a hint of a teacher. The audience was assumed to consist of highly intelligent people to whom he wished to communicate some of his recent experiences . . .(Jones, 1953, p. 341f.)

With respect to the remaining two parts in the Aristotelian five-part division of rhetoric, arrangement and style, much could be written, but it would trench on literary criticism. The Greeks analyzed style evaluatively in terms of the four virtues of correctness, clarity, ornamentation, and propriety; I will merely record my impression that Freud would earn top grades on all of these counts.

Freud prided himself on having held aloof from the brawling controversy of polemics. Only once, he says with some pride in his *Autobiography* (1925), did he directly answer a critic, in 1894. Yet it is obvious that he wrote in a polemical mood much of the rest of his life, always with a consciousness that the reader might be hostile. He was explicit about it in many letters to his followers. For example, to Jung in 1909:

> We cannot avoid the resistances, so why not rather challenge them at once? In my opinion attack is the best defense. Perhaps you underestimate the intensity of these resistances when you hope to counter them with small concessions. (Quoted in Jones, 1955, p. 436)

And to Pfister two years later:

> It is scarcely possible to have a public debate on psychoanalysis; one has no common ground and there is nothing to be done against the lurking emotions. The movement is concerned with the depths, and debates about it must remain as unsuccessful as the theological disputations at the time of the Reformation. (Jones, 1955, p. 450f.)

Feeling this strongly, Freud could not have done other than to approach the task of exposition as one of argument. The amazing thing is that the skilled verbal swordsman let the scientist in Freud have the floor as much as he did.[7]

SUMMARY

And now let me return to cognitive style in its contemporary technical sense. As Klein uses it, a cognitive style characterizes a person and his unique way of processing information. There are, of course, similarities among people in these respects, and the dimensions into which cognitive styles may be analyzed are called *cognitive control principles*. (The most nearly definitive statement of the principles discovered by Klein and his collaborators is contained in the monograph by Gardner, Holzman, Klein, Linton, & Spence, 1959.)

We have seen that Freud had, to an unusual degree, a tolerance for ambiguity and inconsistency. He needed it. As I argued in earlier sections, above, his thinking always took place in the context of pervasive conflicts. In the first of these, tender-minded, speculative, wide-ranging and fantasylike thinking deriving from *Naturphilosophie* was pitted against the disciplined physicalistic physiology of his revered teachers. The second conflict involved sets of propositions about reality and human beings and, more generally, two opposing world views, a humanistic and a mechanistic image of man—one artistic, literary, and philosophical, the other grounded in a reductionistic ideal of Science and its promise of progress through objectivity and rigor. Moreover, Freud's metapsychological model clashes

[7] As a brief ecological aside, I would like to suggest that Freud might have been less of a fighter in his writing if he had worked from the protective security of an academic position. His precious Professorship did not carry tenure nor a salary; Freud operated always from the exposed and lonely situation of private practice.

at many crucial points with reality; so a further conflict took place between one set of Freud's basic orienting assumptions and his growing knowledge of the facts about behavior.

Because of all these conflicts, I believe that he had to operate in his characteristically loose-jointed way. If he had had a compulsive need for clarity and consistency, he would probably have had to make choices and resolve his intellectual conflicts. If he had followed the way of hard-nosed science, he would have been the prisoner of the methods and assumptions he learned in his medical school and its laboratories—another, more gifted Exner, who might have written a series of excellent neurological books like the one on aphasia, but who would probably have emulated his cautious contemporaries in steering clear of hysterical patients. And if he had turned his back on the effort at scientific discipline and had opened the floodgates to his speculative inventiveness, we might have had a spate of Nature-philosophical essays but nothing like psychoanalysis; or if the humanist in him had decisively won over the mechanist, he might have written brilliant novels but would never have made his great discoveries.

But because Freud was able to keep one foot in art and one in science, because he could comfortably retain the security of a model inherited from respected authorities without its wholly blinding him to the aspects of reality for which it had no place, he was able to be extraordinarily creative. Productive originality in science involves a dialectic of freedom and control, flexibility and rigor, speculation and self-critical checking. Without some loosening of the chains of conventional, safe, secondary-process thinking, there can be little originality; Pegasus must have a chance to take wing. But liberation alone is not enough. If

flexibility is not accompanied by discipline, it becomes fluidity, and then we have a visionary, a *Phantast* (as Freud once called himself and Fliess) instead of a scientist. It was just this that Freud feared in himself. The daring but fruitful ideas must be sorted from the merely daring or positively harebrained ones; insights must be painstakingly checked; new concepts must be worked into a structure of laws so that they fit smoothly, buttress and extend the edifice. All of this takes an attitude that is antithetical to the earlier, more strictly creative one. It is asking a great deal of a man, therefore, that he be adept in both types of thinking and able to shift appropriately from the role of dreamer to that of critic. Perhaps that is one reason that we have so few truly great scientists.

This first major characteristic of Freud's cognitive style is strikingly reminiscent of the principle of cognitive control called by Klein and his associates *tolerance for instability* or for unrealistic experiences. "'Tolerant' subjects [as compared to intolerant ones] seemed in equally adequate contact with external reality, but were much more relaxed in their acceptance of both ideas and perceptual organizations that required deviation from the conventional'' (Gardner et al., 1959, p. 93). It is a relaxed and imaginative kind of mind, opposed to the kind that rigidly clings to a literally interpreted reality. And Freud (1933) was unusually willing to entertain parapsychological hypotheses that go well beyond scientifically conventional concepts of reality. Telepathy is quite literally an "unrealistic experience."

If Freud was tolerant of ambiguity, inconsistency, instability, and unrealistic experiences, there was one similar-sounding state that he could not tolerate: meaninglessness, the assumption that a process was stochastic or that a phenomenon

occurred because of random error. No doubt this attitude led him at times into overinterpreting data and reading meaning—especially dynamic or motivational meaning—into behavior unwarrantedly. But it also spurred his basic discoveries, such as that of the primary process and the interpretability of dreams, neurotic and psychotic symptoms.

Let us see whether the remaining five dimensions described by Gardner, Holzman, Klein, Linton, and Spence do not form a useful framework for summarizing Freud's manner of thinking. It surely seems probable that Freud was strongly field-independent. Inner-directed he surely was, and Graham (1955) has shown an empirical connection between Riesman's (1950) and Witkin's (1949) concepts. Here is the Gardner et al. description of the kind of person who is field-independent—not markedly dependent on the visual field for orientation to the upright: he is characterized by "(a) activity in dealing with the environment; (b) . . .'inner life' and effective control of impulses, with low anxiety; and (c) high self-esteem, including confidence in the body and a relatively adult body-image. " It sounds a good deal like Freud, except possibly for his ambivalent and rather hypochondriacal attitude towards his body—"poor Konrad," as he wryly called it. Linton (1955) has further shown that field-independent people are little susceptible to group influence, surely true of Freud.

In his preference for a small number of extremely broadly defined motivational concepts, Freud seems to have had a broad *equivalence range*. And on Klein's dimension of *flexible versus constricted control*, Freud would assuredly have scored well over at the flexible end. Was he not "relatively comfortable in situations that involved contradictory or

intrusive cues . . . not overimpressed with a dominant stimulus organization if . . . another part of the field [was] more appropriate"? And surely he "did not tend to suppress feeling and other internal cues." This is the description of the flexibly-controlled subject (Gardner et al., 1959, p. 53f.).

The other two dimensions of cognitive control seem less relevant. *Scanning* (as against *focusing*) as a way of using attention might seem to suggest the way Freud attended to his patients, but it is qualitatively different. Scanning is accompanied by the ability to concentrate on what is important, but at the cost of isolation of affect and overintellectualization; it is not so much passively relaxed attending as a restlessly roaming search for everything that might be useful. And so far as I can determine, Freud was not either a *leveler* or a *sharpener*; he neither habitually blurred distinctions and oversimplified nor was he specially alert to fine differences and always on the lookout for slight changes in situations.

It is fair to conclude, I think, that some of these principles of cognitive control seem quite apt and useful, though a good deal of the flavor of Freud's uniqueness as a thinker is lost when we apply them to him. In addition, a couple of other aspects of cognitive style have been suggested as characterizing Freud. Kaplan (1964) begins a general discussion of the cognitive style of behavioral scientists thus: ". . .thought and its expression are surely not wholly unrelated to one another, and how scientific findings are formulated for incorporation into the body of knowledge often reflects stylistic traits of the thinking behind them" (p. 259). He goes on to describe six principal styles, and mentions Freud in connection with the first two of them: the literary and the academic styles. The literary

style is often concerned with individuals, interpreted "largely in terms of the specific purposes and perspectives of the actors, rather than in terms of the abstract and general categories of the scientist's own explanatory scheme . . . Freud's studies of Moses and Leonardo . . . exhibit something of this style.'' The academic style, by contrast, is "much more abstract and general . . . There is some attempt to be precise, but it is verbal rather than operational. Ordinary words are used in special senses, to constitute a technical vocabulary. . . . [Treatment of the data] tends to be highly theoretical, if not, indeed, purely speculative. System is introduced by way of great 'principles,' applied over and over to specific cases, which illustrate the generalization rather than serve as proofs for it.'' Kaplan cites "essays in psychoanalytic theory'' generally as examples, but I trust it will be apparent how well these descriptions characterize and summarize much of what I have brought out about Freud.

A Decalogue for the Reader of Freud

To conclude, let me come back to my original statement that a better understanding of Freud's intellectual background and cognitive style would help the contemporary reader to read him with insight rather than confusion, and try to give it substance in the form of ten admonitions. Like another decalogue, they can be reduced to one golden rule: be empathic rather than projective—learn what are the man's own terms and take him on them.

1. Beware of lifting statements out of context. This practice is particularly tempting to textbook writers, polemical critics, and research-minded clinical psychologists who are more eager to get right to the testing of propositions than to undertake the slow study of a large corpus of theory. There is no substitute for reading enough of Freud to get his full meaning, which is almost never fully expressed in a single paragraph on no matter how specific a point.

2. Don't take Freud's extreme formulations literally. Treat them as his way of calling your attention to a point. When he says "never," "invariably," "conclusively," and the like, read on for the qualifying and softening statements. Remember the change that has taken place in the general atmosphere since Freud wrote his major works; social acceptance and respectability have replaced shock and hostility, which made Freud feel that his was a small and lonely voice in a cold wilderness, so that he had to shout in order to be heard at all.

3. Look out for inconsistencies; don't either trip over them or seize on them with

malicious glee, but take them as incomplete dialectic formulations awaiting the synthesis that Freud's cognitive style made him consistently draw back from.

4. Be on the watch for figurative language, personification in particular (reified formulations of concepts as homunculi). Remember that it is there primarily for color even though it did at times lead Freud astray himself, and that it is fairest to him to rely primarily on those of his statements of issues that are least poetic and dramatic.

5. Don't expect rigorous definitions; look rather for the meanings of his terms in the ways they are used over a period of time. And don't be dismayed if you find a word being used at one place in its ordinary, literary meaning, at another in a special technical sense which changes with the developmental status of the theory. An enterprise like the *Dictionary of Psychoanalysis*, put together by a couple of industrious but misguided analysts who lifted definition-like sentences from many of Freud's works, is completely mistaken in conception and betrays a total misunderstanding of Freud's style of thinking and working.

6. Be benignly skeptical about Freud's assertions of proof that something has been established beyond doubt. Remember that he had different standards of proof than we do today, that he rejected experiment partly from a too-narrow conception of it and partly because he had found it stylistically incompatible long before even the first works of R. A. Fisher, and tended to confuse a replicated observation with a verified theory of the phenomenon in question.

7. Remember that Freud was overfond of dichotomies, even when his data were better conceptualized as continuous variables; in general, don't assume that the theory is invalidated by its being stated much of the time in methodologically indefensible form.

8. Be wary of Freud's persuasiveness. Keep in mind that he was a powerful rhetorician in areas where his scientific footing was uncertain. Though he was often right, it was not always for the reasons he gave, which are almost never truly sufficient to prove his case, and not always to the extent that he hoped.

Finally, be particularly cautious not to gravitate toward either of two extreme and equally untenable positions: that is,

9. Don't take Freud's every sentence as a profound truth which may present difficulties but only because of our own inadequacies, our pedestrian difficulty in keeping up with the soaring mind of a genius who did not always bother to explicate steps that were obvious to him, but which we must supply by laborious exegetical scholarship. This is the temptation of the scholars working from within the psychoanalytic institutes, those earnest Freudians who, to Freud's annoyance, had already begun to emerge during his lifetime. For most of us in the universities, the corresponding temptation is the more dangerous one:

10. Don't let yourself get so offended by Freud's lapses from methodological purity that you dismiss him altogether. Almost any reader can learn an enormous lot from Freud if he will listen carefully and sympathetically and not take his pronouncements too seriously.

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