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INTRODUCTION

One hundred years ago now a child was born in a humble home in the hinterlands of central Europe who grew up and became a doctor and a research scientist. His discoveries and proposals changed the thinking of the whole world within his life time. This did not make him less humble; he bowed his head lower and through suffering and exile worked all the harder. Not to Isaiah nor to Jesus nor to Plato, not to Empedocles nor to Galileo nor to Newton was it given that they should live to see the effects of their discoveries and their teachings. But Freud may have thought of Moses who changed his world but lay down in a lonely foreign grave, or of Alexander, who conquered everyone except himself and died in disappointment and defeat far from home, or of Columbus, who found a new world but died in chains in the old one.

But revolutionary and world-shaking as were his discoveries and postulations, perhaps Freud's most long lasting influence upon those of us who follow him lay in his character. His persistence in the pursuit of enigmatic and mysterious data, his conviction regarding the reality and lawfulness of psychic phenomena, his belief in the curability of the "hopeless" neuroses, his humility in the midst of renown, his courage in the face of disaster, his patience in the grip of suffering—it is these which now three generations of followers have consciously and unconsciously taken unto themselves and into themselves as ideals. If we are less assiduous than he in the pursuit of truth, less modest in the proclaiming of it, or less effective in its application, count it our lesser stature, not our lesser aspiration.

We are a sentimental species, and proud of our time binding faculty. So we "celebrate," as we say, in our quaint human fashion, the double decimal of the circuits of our planet about the sun since the mother of Sigmund Freud first gazed at her new born child and wondered, as mothers do, what he and the world might do to one another. More than anyone who ever lived, that child was to show us how 'as the twig is bent the tree's inclined.' And so on this anniversary we honor a great tree of many leaves

but we honor also that mother and the father and the others who together bent that twig in that village in another part of our planet, one hundred years ago.

I speak for the Editors of the *Bulletin* and the contributors to this memorial issue and the one which is to follow it in July, also a memorial issue; and I speak, too, for the members of the Topeka Psychoanalytic Society and of the staff of The Menninger Foundation, who have worked together in its production.

K. A. M.

THE LIVING IMAGE OF FREUD

By FREDERICK J. HACKER, M.D.*

Some apology and explanation may be in order when a relatively young psychoanalyst expresses his homage to Freud's birthday not by a contribution demonstrating the fruitfulness of Freud's discoveries, but by explicit remarks about the master himself, his person and his work.

At first glance, it might appear as if we knew a great deal about Freud: some of us remember him personally; his early collaborators and pupils have published their memoirs; painstaking research continuously unearths new letters and information about little-noticed incidents of his daily life; Freud's part of the correspondence with his only friend Fliess is declared, with suspiciously precipitous haste and enthusiasm, as the valid substitute for his personal analysis; and, after the recent detailed and admirable biography by Ernest Jones, the consensus of psychoanalytic opinion seems to indicate that all legitimate curiosity about the man Freud has been satisfied—all the more so since he himself did not at all encourage any further inquiries concerning his personality and his life.

In some of the most brilliant essays of world literature (about Dostoevski and Leonardo da Vinci), Freud showed how much can be gained in understanding of artistic and scientific creation by intimate knowledge of its author. However, in his own case, he frequently expressed the wish to recede completely behind his work. He did not want to be considered beyond the carefully edited statements he reluctantly made about himself. The creator of the most "indiscreet" science, which insists on the absolute, complete, and full disclosure of everything as its immutable therapeutic and research principle, was himself uncompromisingly discreet. He defended his right of personal privacy with more than conventional insistence and even reproached one of his favorite pupils for being not an inaccurate but an unauthorized biographer, as if the interest in greatness could ever be controlled by special permission.

Freud's name is so much identified with psychoanalysis, not only as its founder, but as its most creative and productive contributor, that many inner conflicts have be be faced by any psychoanalyst when talking about Freud in any but the usual ways. Most psychoanalytic papers begin with a Freud quotation, often end with another one, and the bulk of their content is either a confirmation, modification, or, at times, a tentative reformulation of a Freud thesis. The master's picture hangs on the walls of our consultation rooms; our libraries are full of books by him and about him; our working day consists largely in the constant application of his theories to our thera-

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peutic task; and, as he has taught us never to stop asking "why" and "how," we hourly agree with him, wrestle with him, debate with him. We are socially singled out, admired, feared, or derided because of our special intimate relation to his science; we are his spokesmen, his crusading knights, his representatives. For us, psychoanalysis is not only our science but also our daily occupation, our livelihood, our pride, or our personal conflict. Psychoanalysis determines our way of life, and our critics tell us that it has become our substitute for life, our escape, our religion, our racket, our obsession, our grand rationalization, and our prison.

Innumerable ties connect us with the founder of our science, who was also the organizer and head of our professional organizations; all kinds of subtle, intimate, secret relations exist between the venerable and awesome Freud figure and the group (or horde) of his sons and grandsons. Sincere admiration for his genius combines with "objective" appreciation of his contributions and respect for his honesty and integrity to enforce observance of Freud's taboo against undue curiosity about his inner life. But as this veil of respect covers up our often ambivalent emotions, it also removes the man Freud from our gaze and makes his person as remote on his one-hundredth birthday as his theories retain their burning actuality.

Of course, nothing could be more vulgar than the crude, debunking approach that confuses pseudo-intimacy with knowledge. Nothing is less revealing than to call a great man disturbed, neurotic, or contradictory. Nothing is cheaper than the glib satisfaction of showing that Freud, too, had his foibles, his prejudices, his irrationalities, and his symptoms. Yet, has not the theory and practice of psychoanalysis made us detectives by reflex, so to speak; does not the presence of a taboo alert us by unconscious habit to look into its motivations? Freud has convincingly demonstrated that the very presence of a taboo constitutes an unconscious challenge to the searching intellect. Hence, I cannot think of any more timely task than to try to rediscover Freud, or some aspects of him, for ourselves as a personal, living, present experience before he has completely ossified into the remote monument of "the great man." His familiar picture as the sage of Vienna, sitting seriously and in somewhat Olympian fashion behind his desk, peering at us with searching and critical eyes, hides as much as it reveals of the phenomenon Freud, that largely transformed and created today's world. The authoritarian liberal, the discreet discoverer of the curative value of indiscretion, the sober scientist with a passion for dreams, art and the obscure origins, the dissector of faith with a burning faith in humanity—Freud, this epitome of modern man, was not at all like the Freud legend.

His external life seems indeed so devoid of any striking and dramatic experiences as to discourage even the most persistent seeker of the human-interest story. Even the strained efforts of generations of critics have not been able to throw the slightest shadow on his integrity and his sober fairness or his personal conduct, which complied with all the demands of the same conventional morality that he had discovered to be repressive, rigid, and even dishonest. Surely this is neither coincidence nor an overlooked detail, but significant for the inner law of this puzzling personality. The man who, with the bold daring of a revolutionary genius, questioned all the comfortable assumptions of bourgeois life and found them wanting, behaved in his personal sphere as if he were just another fairly successful practicing physician of his day. He was constantly dissatisfied, complained and grumbled, but never rebelled. In strict compliance with the specific moral code that he had discredited, he was a model paterfamilias of a respectable household, inconspicuously living an average existence in an atmosphere which he presumably hated and despised.

He came to Vienna as a four-year-old boy and remained there for 76 years, although his complaints about this city never ceased. He felt uncomfortable among the feudal trimmings of Viennese social and academic life and stifled by its reluctance to move ahead. In many letters, he expressed his admiration for the much more active and progressive Berlin and his utter dislike of static Vienna, which did not appreciate him and rejected all of his efforts by ridicule or, even worse, by a stubborn refusal to take cognizance of his existence. Early in his life he recognized his better opportunities for a lucrative practice elsewhere—a consideration not unimportant to Freud, who could never permit himself to forget that he had been a poor Jewish immigrant and had to defend himself against a basically hostile environment. Even his formulation of the reality principle betrays the scarcity-economics of his own poverty in youth and his fear of poverty in later years.

He also knew that he was the best living example of the prophet's lot in his own country. At a time when his fame had spread around the entire world, he was still regarded in Vienna with disgust, treated as a nobody or with slightly ridiculing condescension. On his seventieth birthday, no representative of the University congratulated him, and the Nobel prize-winning professor of psychiatry recommended him, with heavy-handed irony, for a Nobel prize in literature, thereby relegating his discoveries to the realm of fiction.

Yet for 46 years, he inhabited the same modest apartment in a shabby district of Vienna, a few steps away from the University which had so bitterly wounded him by deliberate neglect as much as by its malicious reluctance to grant him the coveted professor title, which he finally had to obtain by engaging in hateful, political wire-pulling. Even when, in 1938, Hitler's army forcibly occupied Austria, he still refused to leave Vienna and almost missed the last opportunity to escape his barbaric opponents,

who recognized and hated him as one of their prime enemies, before he, the great psychologist, finally awoke to the realization of his mortal danger.

What strange attraction this town, in which he remained a life-long outsider, must have had for him! Freud did not belong—at first because he could not and then because he would not belong. For many decades, he stood alone and lonely, his longing for recognition breaking through in frequent bitter remarks, until his remarkable "nerve of failure" turned rejection into the self-chosen fate of splendid isolation.

Indeed, no greater contrast is thinkable than the one between the non-joiner Freud and the gregarious Vienna of his day. Of course, Vienna was never like its Hollywood image—a city of eternal leisure, erupting into incessant singing, dancing and carousing; nor did it consist exclusively of coffee-house-visiting, waltzing party-goers and gallant aristocrats or their bourgeois imitators. But Vienna did have a world-famous opera (which Freud's wife loved to frequent, although she regularly missed the first act of every performance in order to be present at the family's evening meal). Vienna loved its music in all forms and its many excellent theaters. Composers, writers, poets, actors and actresses, the masters and servants of the beautiful illusion—they were the invariable conversational topics of the intellectual bourgeoisie, to which Freud would have belonged if he had belonged to any social group. Freud admitted that music meant little to him, but, curiously enough, he also managed to keep himself almost completely aloof from any direct contact with contemporary literature. He preferred to use "safe" literary references from the classics Goethe and Schiller, from C. F. Meyer and from Shakespeare, while avoiding any personal meeting or closeness with his writing contemporaries, although among them were such kindred souls as Beer-Hoffman, Altenberg, Wassermann, Hofmannsthal, Karl Kraus, and even Schnitzler, the doctor-colleague who lived only a few blocks away and whose main themes are poetic variations on Freudian ideas. It seems as if Freud almost insisted on his isolation, from which he suffered so bitterly that he considered himself lacking in a basic quality of lovability; after his famous initial rebuff by the medical fraternity, he did not want to bother or to be bothered, particularly not by representatives of the Vienna Medical School, which then stood at the peak of its fame as the world's most renowned center of medical science. More and more, he remained aloof, without many connections and without any intimate friends, alone with his family, his patients and his pupils, an isolated rock in the turbulent sea of the imperial city around him.

The mood of much-praised and much-maligned Vienna was utterly sophisticated and utterly conservative, tolerant from an abundance of skeptical knowledge, completely persuaded only by the one conviction that nobody or nothing deserved to be taken seriously. Vienna was charming and charmed, cautious and mistrustful of any new idea or of any fundamental change that might upset the precarious balance of the slowly and elegantly decaying empire that concealed behind its façade of splendor the signs of inevitable dissolution. The Viennese were cultured, gentle, well mannered, witty, gay, ironical, constantly ready for any compromise that would preserve the *status quo*, or at least its appearance. The favorite Austrian way of making decisions was to delay them interminably, if they could not be avoided altogether. Not only were sleeping dogs left to lie, they were lulled to sleep by the many sweet diversions of existence. Nothing was "either-or"; everything, "a little bit of this and that." Being and appearing, reality and fancy imperceptibly merged into each other to produce the durable Viennese mixture of lightheaded muddling-through, of elastic inflexibility and gay melancholy.

Freud was the embittered and enthusiastic antagonist of this atmosphere that denied conflicts by ridicule, in order never to have to come to grips with them. He hated the half-hearted and tentative, noncommital acceptance of half-solutions and continuous escapes which offered themselves with seductive reasonableness as the best possible way out. He wanted a way *into* problems. He mercilessly dragged them to the surface and exposed them, with the fanaticism of the incorruptible truth-searcher, to the penetrating Klieg-light of objectivity. He insisted stubbornly on calling things by their right names.

There was never any lack of clarity in Freud. His masterly economic prose reports soberly, without ingratiating phrases of hopefulness or consolation, what he saw and heard, what he concluded, and what he foresaw as possibility. Surrounded by sloppiness, this proudly upheld Viennese vice, he stressed clinical exactitude as the main scientific virtue. He refused to accept the irresponsible relief of the quick aphorism as the coin with which to honor the sacred obligation to the pursuit of truth. Against an all-pervading immobilism, he had the courage to develop an all-comprehensive system of human functioning. He is the only twentieth-century thinker with the sweep of the great system-builders, without their naïveté or their dogmatism. In a world of conciliatory delay, he knew no compromise. He disdained to change even a word of what he believed to be true for the sake of better effect. He would rather antagonize friend and foe than make the slightest concession, although he was, at the same time, ever ready to revise or discard important parts of his theory when new observations gave him new ideas. With little humor and no pathos, he pursued the first things up to the last consequence until the ultimate limits of recognition were reached, a radical indeed in his undeviating determination to penetrate to the very origins, to the individual and collective sources and beginnings.

The Socratic insight into the inevitable limitations of the intellect stood

at the start of Freud's scientific career. He realized that complete knowledge was as unachievable as the three other great impossibilities: he said that one could neither govern, nor educate, nor heal. But he did not rest until he knew more about human beings than anybody before him. He did not stop until he had found the seemingly obscure answers to why people permit others to guide them, why people want to learn and how they can be taught, and what can relieve man of the terrible afflictions that the secret alliance between his drives and the frustrating forces of the world has brought down upon him. He did not relent in his inquiries until the last symptom had been explained and the very last refuge of self-deception exposed, and thus he found, in the innermost recesses of the individual's unconscious, the universals of human existence.

Why, then, did Freud remain tied to Vienna, which stood for everything he hated and despised? He suffered a whole life long, not only spiritually but personally, from its snobbish social structure that excluded him, from its oppressive Catholicism that inhibited and disgusted him, and from its false surface optimism that buried every serious problem. It would be too easy to explain Freud's ambivalence—his hatred of Vienna and his inability to break away from it—by stating that it provided him with material for observation; nor could it have been merely habit or economic factors that tied him to his home. Only a Freud could give the real explanation for this peculiar phenomenon, and it is indeed regrettable, though quite characteristic of him, that he did not let us have the most exciting of all adventure-stories of the mind, the greatest of all psychological documents—namely, a complete report of Freud's psychoanalysis by Freud himself; for, despite his uneventful life, he was probably the most complex and intricately fascinating of personalities, reflecting within himself the division and tragedy of modern man. Other great persons display many curious facets, but in few of them—except in the closely related Nietzsche and Thomas Mann—do so many trends appear in ever-new shades and nuances on different levels. Rarely has one person combined such strange interconnections and interrelations between seemingly contradictory elements which yet somehow belong together, and never before dared a man explore all of these inner possibilities to their last consequence in the clear light of rational consciousness until they yielded their secrets—in everybody else except himself.

The tenacious love-hate relationship to Vienna serves as only one of many possible illustrations of the strangely interlocked complexity of Freud's being. Even now, it is almost impossible to decide whether he was the rationalist enlightener, the positivist natural scientist, or the extoller of the night side of life, awed and bewitched by the mystical forces within man. Thomas Mann has asked legitimately, in truly Freudian spirit, whether Freud's interest in the depths does not betray a close affinity to them. Could the wish to know and to cure be partly a rationalization for the desire to search and remain in the depths? For the unconscious, the secret innermost part of every one and all of us, is not a research object like any other. The first mine-digger of the most intimate must indeed be an adventurer of a very special sort. Did he descend to these depths only to come up with his treasure, and did not every new find send him back to the chthonic abysses of the most sacred taboos? Innumerable passages in his works reveal him as the sober scientist who believes only what he can see and demonstrate. We know of his inimitably masterful clinical dissections, his reluctance and refusal to speculate beyond the well established. We hear him convincingly argue against philosophy; and yet, with his ingenious instinct-theory, with his discoveries of the conservatism of drives, and his grandiose dualistic biopsychological concept, he created, in brilliant speculative strokes, one of the greatest philosophies of all times. And is it conceivably coincidental that he gave his scientific discoveries names from Greek mythology, or that, in the cautious style of the modest observer, he developed the most extravagant theories of past and present, which implicitly also contain his prognosis for the future?

What is his message to mankind? Is it the word of optimistic progress, that the voice of reason, small as it may be, will ultimately triumph; or does he condemn us to an essentially futile struggle, in which every cultural advance necessitates ever more patient instinct-renunciation, thus making the period between birth and the inevitable triumph of the death instinct increasingly more painful? Freud quotations could easily support either view. Critics optionally describe him as "naïve positivist," who ignored the transcendental side of man, or as "unscientific idealist," who succumbed to a speculative bias in theories that are unproved and unprovable. He has been called a typical child of the nineteenth century for his biologizing tendencies, and the promoter of a new pseudo-religion and cult for his insistence on a coherent system. He is designated a mystic for his belief in the possibility that early phylogenetic events are reflected in the individual's unconscious, and a shallow materialist unable to comprehend man except as a conglomeration of various mechanisms.

Freud annihilated the narcissistic pride of man when he showed that he was not even master in his own inner household; he destroyed the soothing illusion of some religious beliefs and the deception of the fairy tale that we are born good and become bad only as we are exposed to a bad world. He was a determined revolutionary because he penetrated the taboos of the various hidden forms of sexuality with the intention to liberate by recognizing, and he succeeded. Implicitly and explicitly, he became a critic of the prevailing forms of sexual and social control and showed their repressive, neurosis-producing character. Yet to many he appears as a reactionary, incapable of conceiving fundamental changes in human nature, an

old-fashioned bourgeois who perpetuated the social system which moulded him, a willing instrument or unwitting dupe of those who wanted to continue man's exploitation of man. Can it be that the cosmopolitan Freud was so provincially narrow as to believe in the universality of certain conflicts produced by passing sociological constellations? How can the same man stress the significance of history, of the time category, for mental life, thereby discovering the exciting dynamics of mental functioning, and yet insist on the basic immutability of the instinctual organization and the psychic apparatus? Was the individual for Freud the last developmental product of evolution or just a temporary historical manifestation of the ever-constant, supra-individual forces of Eros and Thanatos? Did he seek the cure of society through the individual and was an increase in universal happiness his goal, or did he forget about society in his concern for the sick individual?

It is one of Freud's most original contributions that his phylogenetic and ontogenetic concept of the individual is at all times explicit sociology. Even the earliest conflict situations he describes as occurring between the child and the persons in his environment. The social category thus is not later superimposed but exists as crucial from the very beginning. But equally strong is Freud's biological emphasis, the insistence that the crucial conflict situations are inevitable projection products of a growing biological structure. Was Freud's real concern with the complexities of the sick, whom he wanted to cure by understanding, or with the problems of the so-called healthy in society? Were his sympathies with the Id, that he wanted to liberate; or with the Superego, that he wanted to reduce so that it could control better; or with the Ego, that he wanted to extend and strengthen, while reminding us constantly how fragile, temporary and incomplete this victory must necessarily be?

What is the *real* Freud? And where can we find him—in his clinical papers, in *Beyond the Pleasure Principle*, in his *Moses and Monotheism*?

All these very real Freuds together do not lend themselves easily to the justification of orthodoxy or the administration of a dogmatic creed in his name. But the temptation to forget the obligation of his heritage—to ruthlessly question, examine and re-examine everything around ourselves and within ourselves—is all the stronger the more successful and respectable psychoanalysis becomes. To remain faithful to this main psychoanalytical duty was relatively easy when a small, cohesive group of scientific outcasts had to fight the whole world in order to be heard and to be believed. This fight has been won. The most cursory glance around the contemporary scene will confirm the modern miracle that psychoanalysis, possibly just because of Freud's refusal to compromise, has conquered on all fronts. Psychoanalytic terms have become household words; psychoanalytic concepts are the conversational topics of educated and uneducated alike; all forms of psychotherapy live off psychoanalytic insights; the theater, poetry, the novel, all bear the indelible imprint of psychoanalytic insight; psychoanalysis has decisively influenced all modern sciences—medicine, biology, psychology, sociology, anthropology, education, philosophy, theology, even physics. The Freudians have become a powerful, large organization, its members widely respected and with income and prestige close to the top of the professional hierarchy.

With this growing recognition by the formerly hostile or indifferent world, serious new problems have arisen that should give us thoughtful pause when self-gratulation, naturally enough, enters into the mood of Freud's birthday celebration. For to quote him, to teach his insights, to apply his message and extol his genius is not enough if we are to avoid a repetition of Dostoevski's famous Grand Inquisitor scene, when the faithful pupils chase away the returning master (after considering the idea of executing him) so that he will not prevent them, by new deeds, from practicing his teachings and ruling in his name.

Freud has taught us that recognition alone is not sufficient. The manifold mechanisms of the mind, the ingenious tricks and schemes of the unconscious, the narcissistic deceptions, cleverly concealed scotomata and skillful projections permit the pursuit of truth (not absolute truth but man's best truth) only at the price of eternal vigilance and never-relaxing radical search. The living image of Freud must not be obscured behind the venerable mask of the Viennese professor. For he who treated the smallest symptom of the sick and the largest manifestation of social life in the same unmistakable style, with his unheard-of combination of objective detachment and violent phantasy, was very different from the current cliché picture of him. The stereotype of the inaccessible and unreachable genius should not stifle continuing controversy with him and about him.

Because Freud lived, the forces of individual and collective repression will never triumph again as completely or as unrecognized as before. Mankind may consciously or unconsciously attempt to forget as hard as it may; the vision of the central significance of sexuality, which propels and reflects the truly human development from biological to mature love, and the recognition that the complex laws of man's inner bondage are also his only means of liberation will never be totally erased from consciousness. The edifice of psychoanalysis mirrors the image of the founder by the unity of startling complexity and utter simplicity. All the subtleties and amazing ramifications of psychoanalysis, the most self-reflective, most skeptical, most sophisticated theory of human motivation are based on Freud's surprisingly simple and humane approach: He listened without interruption and recorded without distortion. In the despised waste products of the mind—in dreams, slips and phantasies—he found the truth; in suffering man, he found man himself and the essence of his humanity.

FROM ARISTOTLE TO FREUD

A Few Notes on the Roots of Psychoanalysis

By ISHAK RAMZY, Ph.D.*

It was not a psychoanalyst who once announced as his well-considered judgment: "In my opinion Freud has, quite unquestionably, done more for the advancement of our understanding of human nature than any other man since Aristotle."[9] It was William McDougall, the founder of a well-known system and school of psychology. In spite of his continuous criticisms of Freud over a number of years, he did not fail to admit the true greatness of the founder of psychoanalysis and said that he singled it out as the object of his critical attack because he considered "Freud's system the most deserving of honest criticism, to have the essential formulations of truth which are lacking in most other contemporary systems."[10]

Neither was it a psychoanalyst who said that, "Freud was the actual discoverer of new territory. . . . Freud is, for all his empirical pretensions, primarily a constructor of logical systems, a man whose approach to irrational problems is that of an extreme rationalist. Freud smashed into the barricades of science as a revolutionist, but his revolution will no doubt become incorporated in the deeper and more constant stream of evolution."[11] This sour opponent of psychoanalysis, Müller-Freienfels, being the good scholar and careful historian of psychology that he was, could not but admit the everlasting importance and truth he saw in the major chapter of psychology, which Freud contributed.

It was a psychoanalyst, however, Kurt Eissler,[4] who said, "Freud's technique of free association and his conception of the laws underlying this process are not a foreign body in the development of psychology, but a logical link between the old psychology of the associationists and modern psychology. Whereas modern psychologists usually reject the psychology of the 18th and 19th century *in toto*, Freud succeeded in synthesizing the early psychological theories with modern discoveries into a new system of the total personality. It is almost always overlooked that Freud rescued the work of those great philosophers who laid the foundation of present day psychology, that he was not only a great revolutionary, but a great conserver in psychology. Anyone who rejects entirely the so-called free association technique is ignorant of the very basis upon which psychology of the last three hundred years has rested."

Contrary to the general impression, psychoanalysts have on the whole been averse to entering into controversies, and they are still reluctant to make the necessary contact with other systems of science and human knowledge. They had their hands full from the very beginning and their sight engrossed by the many unexplored territories of the human mind. Besides, there was ample obstruction raised against their endeavors by the pundits of formal knowledge in academic circles.

* The Menninger Foundation.

When Putnam suggested that it would be important to study the relations of psychoanalysis to wider philosophical concepts, Ferenczi[5] wrote in 1911 that this idea seemed to be "particularly dangerous to psychoanalysis, which has not yet properly cleared up all the interconnections even within its own field. Surely an off-season, like that in which game may not be shot, should be granted to a young science such as psychoanalysis, and a substantial delay should elapse before it is approached with the armament of metaphysics. The longer one postpones system-building and contents oneself with collecting facts and establishing their interconnections, the greater is the prospect of making fresh discoveries. . . . "

And thus for more than half a century psychoanalysts continued to explore the unconscious and went on gathering masses of data about the working of the human mind. A generation went by and another generation and another following the same tradition of confining themselves to their subject, a tradition not only set by the master but also imposed by the rigorous requirements of their training and their daily tasks. Their conferences and journals are mainly interested in facts, though, of course, they do deal at times with general problems of the methodology of their science, its forerunners, or its ramifications and connections with other disciplines.

Psychoanalytic textbooks, however simple, elaborate, or encylcopedic, still fall short of any acceptable standard of systematic coherence or logical structure. The problem seems to stem not only from the intricacy and complexity of the subject matter; from its elusiveness and the difficulties of putting its elements into words and terms; from the admitted existence of fine and strong links between the various aspects of the mind; and from the impossibility of singling out any one aspect or function without doing violence to it as well as to the rest, but also from the basic foundations of the whole edifice being submerged and overlooked when the sight is focused on the upper and newer layers of the structure. This very often leads to unwarranted so-called deviations, superfluous, assumed innovations or eulogies, apologies and controversies.

As often happens in the intellectual experience of any analyst, one can, whenever bewildered or despondent, go back to Freud's works where one will always be rewarded by a refreshing, reassuring breeze which can fill the sails anew. Anyone who has a nodding acquaintance with the history of human thought cannot fail to recognize time and again in its totality or in its details, how much Freud's work embodies in form and in content the main features of the Western attempts to understand human nature and the human mind.

Such a recognition and such an implicit basic pride and confidence in the roots of psychoanalytic theory were implied in the contributions of the earlier workers. But fashions of thinking and expression changed, as did the fashions of education and academic background. This, together with the ambivalent attitude of other systems and the popularization of psychoanalysis, seem to have obscured the clarity and definiteness of those roots out of which the theory of the new science budded and flourished.

The understandable keen interest of psychoanalysts in direct clinical work, and the increasing demand for their clinical services do not explain, however, their limited interest in the origins of their own science. Nothing helps more than a good method, and nothing works better—as is known—than a good clear theory. If it is said that history is neither method nor theory, it is also said that the history of science is science itself.

The delay and neglect in studying the historical foundations of psychoanalysis may be due to Freud himself who gave only the scantiest information about the origins of his thinking. But the work of Bernfeld[1, 2] and Zilboorg,[12] together with the outstanding biography by Jones[8] and the publication of Freud's letters[7] provide initial material for a closer study of the basic roots of psychoanalysis. As Jones says: "It is the rarest event—if it ever happens at all—for an original idea to be purely spontaneous in origin, with no precursors of any kind. One reason why the present book is being written is in the hope of elucidating something of the processes in Freud's mind and the experiences in his life, that culminated in his discoveries. . . ."

I

Using only the documented landmarks in Freud's academic background, one can begin with what he said was the determining coincidence for the choice of his career, ". . . the theories of Darwin, which were then of topical interest, strongly attracted me, for they held out hopes of an extraordinary advance in our understanding of the world, and it was hearing Goethe's beautiful essay on Nature read aloud at a popular lecture by Professor Carl Brühl just before I left school that decided me to become a medical student."[6]

Freud's basic curiosity, his known habits of work and meticulous ways of searching for the origins of things most probably led him to delve further and deeper into the sources that inspired Goethe's essay. More so, the intellectual atmosphere at that period was saturated with the teachings and theories of "the philosophy of nature." This *Naturphilosophie* was the doctrine developed by the German philosopher Schelling (1775–1854), hailed by his contemporaries as a personality of the true romantic type. Schelling, the son of a learned orientalist and minister, combined the study of theology with physical science. He was one of those people who live out their genius with all its power and daring; he came in direct contact with many of the outstanding thinkers of his time. With Goethe, in particular, Schelling was on good terms, but with Fichte and Hegel he had much friction. After a turbulent personal life, which would be a fertile topic of study for psychoanalysts, Schelling settled down in Munich around the middle of the 19th century. Interestingly enough, his best known work, *Aphorisms on Naturphilosophie*, was first published in the *Jahrbücher der Medizin als Wissenschaft.*

Schelling's thinking is notoriously complex, and at times very intricate and shrouded in mystic veils. It is dominated by the idea of liberation of the individual and his fusion with the universe through reason and love. He considered that Spinoza's pantheistic views were the nearest precursors to his own. In Spinoza, the doctrine of man, his conduct and place in the universe evolve around the idea of the individual, the organism, where soul and body are only two aspects of the one being. For him God is an infinitely absolute substance constituted of an infinite number of attributes each expressing an eternal, infinite essence. Simply put, the pantheist advocates that God is Nature and its laws.

Along that line of approach, but with an added blend of idealism and mysticism, Schelling sought for a reconciliatory basis behind all the eternal conflicts, polarities, theses and antitheses of existence. He assumed that the uniting basis which underlies all the differences and conflicts in the universe is an absolute undifferentiated self-equivalence. Thus, mind and body are only manifestations, forms or consequences of the absolute which sustains all differences. And the ultimate ground of reality is the absolute Reason. But Schelling attempted later to give this absolute a character which he derived from the philosophies of both Spinoza and Plato. He thus advocated that things either physical or mental have an actual being. They exist not merely as topical consequences of the absolute, but have a stubbornness of existence in themselves. He went on to conceive of the will as something beyond reason and thought.

Fascinated by the "Philosophy of Nature," the young Freud entered medical school, not so much with the ultimate aim of practicing medicine, but because it was the best place to satisfy his interest in the study of the sciences of nature. It is significant that most of his eminent teachers were physicians whose main vocation was research, and that most of them, though qualified, had never treated a patient but confined themselves to unraveling the mysteries of the human organism in health and sickness.

At the medical school, Freud followed a group of courses which may now seem strange in its array, but is of utmost importance in understanding not only his tendencies but also the influences he came under. His studies ranged from physics, physiology, and zoology, to philosophy and logic. And it was at the Brücke Institute, where Freud spent six important years

of his intellectual development, besides his other acquisitions during that period, which most probably provided him with the basic elements of his theories that culminated later in his discovery of psychoanalysis.

Brücke, according to Freud, was the teacher who influenced him more than any other man in his life. As we are confining ourselves, in this paper, to tracing intellectual and educational influences, it may suffice to single out just two important currents that characterized the approach of Brücke and his group.

It was around the last quarter of the 19th century that the prestige of biology reached its height, especially under the influence of Darwin's work and the theories of evolution. Darwin became as much a source of disturbance and excitement for the 19th century as Galileo or Newton was for the 17th. Although the doctrine that the different forms of life had a common ancestry was as old as the Greek thinkers themselves, Darwin provided masses of evidence which gave the theory enough force to have it accepted by any average educated person of his time. It is significant that one of the optional courses Freud attended when he joined the University was a course on "Biology and Darwinism."

The publication of Darwin's *Origin of Species* in 1859, was not only a major fruit of the inductive method in science, but it was also the beginning of a trend which reached far and wide. After the battle that raged about it, it established a new mode of thought which had come to stay. Some of its important results should be mentioned here. After Darwin no intelligent scientist could ignore the fact that in every subject the genesis, as well as the actual form of the product, must be considered. In studying living organisms many organs and functions are found to exist together for no particular reason in the present; lower levels of organization still exist when higher forms such as intelligence have already developed, and useless organs or functions remain to challenge anyone who claims that everything was created by one decisive original act.

If Darwin thus gave a sustained impulse to the study of origins and a genetic point of view, there is another side of his theory which, though more disputed, left its indelible impact on many a thinker and scientist. This was his attempt to formulate the motive force of evolution to fit his theory regarding the struggle for existence and the survival of the fittest. Animals and plants multiply very fast, and many of them perish. Sheer luck admittedly interferes, but there is another more important course which determines which will survive. In any given environment members of the same species compete for survival, and it is the one best adapted to its surroundings which has the best chance of living and of multiplying through its offspring. Each generation thus carries the most helpful characteristic of survival, and this, so Darwin thought, could explain the long chain of development from the primitive forms of life to the human species itself.

As a consequence, the interest of many scientists not only focused on the study of animals and children, on the physical and nonphysical functions common to them and to the human adult, but also on such problems as heredity, instinct, emotions, individual differences and intelligence.

This evolutionistic orientation was not the only or the main trend of Brücke, the teacher whom Freud adored and respected. Brücke was the leader, in Vienna, of physical physiology and the ambassador of the influential German school of Helmholtz of whom Freud said, "He is one of my idols."

Helmholtz was the leader of an outstanding group of the students of Johannes Müller, one of the greatest scientists of the 19th century, and the first man to hold a chair of physiology in the world at the University of Berlin. Partly under the influence of the "Philosophy of Nature" and Schelling's "speculative physics," and mainly in revolt against it, and also against vitalism which was the main belief of their master, Müller's bright pupils united to overthrow anything that smacked of mysticism, emotionalism or vitalism, and made the resolution expressed by Raymond DuBois in 1842. "Brücke and I pledged a solemn oath to put in power this truth: No other forces than the common physical chemical ones are active within the organsim . . ." Helmholtz himself, adopting the inductive and mathematical methods of Müller, made many outstanding and theoretical contributions in physics, physiology and psychology, amongst which are his experiments on reaction time and his studies on hearing and vision. It is well to remember that it was Helmholtz who revived and popularized the principle of conservation of energy that says, "the sum of forces remains constant in every isolated system," and that whatever form these forces may take, light, heat, electricity, etc., further knowledge should lead to reducing them all to two, namely, attraction and repulsion—a principle which would seem very familiar to any psychoanalyst, whatever terms he might use to describe the basic human feelings.

Brücke kept his pledge. With his impressive uncompromising character, and an unswerving trust in scientific methodology, he established the name and tradition of his Vienna Institute upon the belief in physical physiology. He set himself to prove, with the help of a few gifted pupils, the assertion that, "No other forces than the common physical and chemical ones are active within the organism." When, some thirty years later, he published his lectures, he mentioned that the definition of physiology he had used was, "It is the science of organisms as such which differ from dead material entities, *i.e.*, machines, in possessing the faculty of assimilation. But they are all phenomena of the physical world: systems of atoms, moved by forces, according to the principle of conservation of energy."

Jones,[8] who provided a description of Brücke's "Lectures," pertinently observed, "The spirit and content of these lectures correspond closely with the words Freud used in 1926, to characterize psychoanalysis in its dynamic aspect: The forces assist or inhibit one another, combine with one another, enter into compromises with one another. . . . "

Whatever may be the details of Freud's work under Brücke, and whatever assignments he conscientiously concentrated upon during that period; whether it was Freud's first research on the existence of testes in the eel which had puzzled people since the time of Aristotle, or his later work on the histology of the nerve cells, enough is now known to establish the importance of this stage in Freud's development. Thanks to Bernfeld and Jones, basic information has been unearthed to affirm that in spite of the revolutionary features of psychoanalysis, its core is a continuation of the work Freud did at Brücke's Institute. The later Freudian theories derive their roots from this work not only in fundamentals but also in detail. The impact of these intensive six years cannot be over-emphasized, nor has it yet been well studied. If we have come to know something of what Freud acquired in content, we should not underestimate what was acquired in form. He lived among a group whose belief in science, whose integrity, dedication, self-sacrifice and denial in the search for truth characterized each one of them in his own way. And it was in this atmosphere that Freud matured those qualities which made up the warp and woof of his private and professional personality.

II

There was another influence, though, which has been so far unduly neglected and even intentionally underestimated. This was Freud's familiarity with Aristotle's theories and his logic. Freud not only joined Franz Brentano's course on philosophy, for three years, but later added his course on Aristotle's logic. For some reason Bernfeld throws doubts on Freud's own account of his being a pupil of Brentano, and without any explicit or tenable explanation he goes on to say that "one is inclined to think of Brentano and Freud as almost diametrical opposites." However, he comes by later and admits that "this does not exclude the possibility that Freud was impressed by some of Brentano's polemics and statements . . . preserved them in his preconscious and that they influenced his thoughts twenty years later."[2]

Franz Brentano (1838–1917) was a Dominican trained for the priesthood and well versed in philosophy, especially Aristotle's doctrines. His first paper was on the various meanings of Being in Aristotle, which became one of his lifelong interests. Among the positions he held was a professorship at Vienna for six years from 1874 to 1880. Brentano had trouble with the church when he stood out strongly against the dogma of the infallibility of the Pope. He wrote so bravely and forcibly that he became the intellectual leader of the liberals within and without the church, a matter which ultimately led to his resigning the professorship and to his giving up his ecclesiastical affiliation and clerical status.

Brentano's major contribution was a first volume (the second came out some thirty years later) which he published in 1874, under the title of *Psychology from the Empirical Standpoint.* In this book, his best known work, Brentano attempted to build up a theory of psychology based on experience, not on experiment. He believed that psychology is a science, but tried to refute the rigid methodologies of physiological psychology which were being propounded by such of his contemporaries as Helmholtz, Fechner, or Wundt.

In spite of a life partly consumed by spiritual or ideological conflicts and partly weighed down by many professional difficulties and personal misfortunes, Brentano was acknowledged as a distinguished forerunner of several schools of psychology such as that of Stumpf or of the Gestalt. Edwin Boring[3] says, "His influence is to be explained in part by his personality, in part by the remarkably effective and trenchant character of the little writing that he produced, and in part by the historical accident that it was he who deflected the light of Aristotle into the realm of modern psychology."

According to Brentano, mental phenomena have an immanent objectivity, they are *acts.* But these acts are not self-contained, the act depends on an extrinsic object. Thus, hearing is a psychical act which implies an object, *viz.* the sound heard. Physical phenomena are different, they are complete within themselves and do not refer to any extrinsic objects. In this manner there is as much difference between psychology and physics as there is between act and object. But they are also related inasmuch as it is to the physical objects that the mental acts refer. When one sees a color, the act of seeing in itself is a mental process, but it contains the sensation of color which is a physical phenomenon. Brentano classified mental acts into three basic groups; the acts of ideating, the acts of judging and, interestingly enough, a third group of *loving* and *hating*, which cover the various shades of affects, emotions and conations.

This is a very concise account of the work of Brentano whom Freud listened to in two of his most successful courses. It is of great importance to know that attendance at philosophy courses had ceased to be an obligatory requirement of medical students when Freud joined Vienna University. Whatever may be the details of these courses, it can be safely assumed that they centered around the Aristotelian doctrines and theories.

Aristotle's influence, enormous as it was in many fields, was greatest of all in logic. To him we are indebted for the rules that should be adopted to organize good presentation and argument; he was the inventor of formal

logic which deals with reasoning as such, irrespective of its content. His works on logic contained in what is known as the *Organon* (the instrument) have such chapters as "the Categories" or the theory of logical terms, "On Interpretation," or the theory of propositions, "The Prior Analytics" or the theory of syllogism in general, "The Posterior Analytics" or the theory of proof, "The Topics" or the theory of dialectic and probable reasoning, and so forth. Even Aristotle's opponents admit that his work on formal logic, on fallacies and deductive thinking are both important and admirable.

Anyone who reads Freud, without knowing anything of the historical facts of his connections, cannot fail to be struck by his impeccable lucidity. His well built arguments, his long breath in following a proposition to the end, the absence of any fallacy in his long chains of inference, are bound to be accepted by any reader who is logical enough to understand what Freud is trying to present. If any of his theories are unacceptable, this is not due to the way he argued it, but to the premises he started with; but this is another matter that lies in another side of logic and scientific methodology which will be touched upon later.

It is naturally beyond the scope of this paper, if it is ever possible in any short communication, to describe even the most salient features of Aristotle. It was said that for more than twenty centuries Aristotle held the world a slave; and it is admitted, even by his adversaries that it was two thousand years before the world produced any thinker who could be regarded as approximately his equal. His teacher, Plato, used to call him The Intellect; the Arabs referred to him as the First Master, and his authority in nearly every branch of human knowledge remained over the centuries almost as unquestioned as that of the church. Out of his system a few points should be mentioned, though, because of their probable influence in germinating Freud's initial hypotheses.

In general, it should be kept in mind that in contrast to his teacher, Plato, Aristotle represents the realistic, rational, scientific, logical approach to the problems of the universe and of man. Aristotle believed that things appear to us as they are, that the human mind is constructed in such a way as to supply us with a valid picture of the external world. Truth is not outside our universe, it is under our eyes. The first instance of science is experience; it is the observation and study of natural phenomena. Aristotle's belief in the efficiency and supremacy of reason led him to conceive that the only happy way of existence is that of thought. Even his God was the supreme Reason, eternal Thought thinking itself.

The central idea in the Aristotelian system is that Being is only that of the individual. But the individual is composed of matter and form. It is by virtue of the form that matter becomes a definite thing. Movement, change or evolution is the passage from one state to another, from the possible to the real, from matter to form, from potentiality to actuality. Other causes besides the material and the formal are needed to achieve change; these are the efficient and the final causes. But these can be included in the formal cause which makes an actuality out of pure matter, which is only the potentiality. Needless to say, these terms are not used in the everyday sense of matter or shape. A simple example is a statue: Marble is matter, the chisel and work of the sculptor is the efficient cause, his goal is the final cause and what the statue represents is its formal cause. This is, obviously, plain common sense—a thing exists as some content bound within certain limits.

Nature always follows a course that ascends from lower levels of existence to ever higher ones. Even mineral has a form, because pure potentiality does not exist in fact. But the inorganic is the matter of the living. A plant contains all the qualities of inorganic matter, but in the organization of its elements, a new form is achieved—life. The animal, in addition to a vegetative life, possesses sensitivity and movement. At the top of the scale comes man who has, in addition to the vegetative and animal properties, reason and thinking. Man is truly man when he accomplishes the human act par excellence; not life, which we have in common with plants, nor sensitivity and locomotion which we have in common with animals, but thought, the property of man alone. Perfect happiness is thus the unhindered exercise of reason and thought. It is beyond the lowlier needs of the animal or vegetative components in the human being, although it does not cancel them out.

Whenever students of Freud find it hard to follow one part or the other of his theories, it would probably be of help to go back to some of Aristotle's doctrines. The libido theory and the supremacy of genitality could perhaps be more easily understood if one recalls Aristotle's view that the higher levels of organization contain the lower levels and something more. Instead of wasting energy on endless superfluous controversies such as those connected with heredity and environment, constitutional or cultural factors, it is fruitful to remember that Freud—time and again—pointed out that things are over-determined and that he specifically mentioned the complementary series in the causation of symptoms. For Freud, as for Aristotle, everything has to have matter and form. Early traumata without later precipitating factors would not bring about a neurosis, neither would a constitutional makeup without an unfortunate life experience. If we are puzzled when Freud says that the death instinct is mute, we should remember that Aristotle had said that when we are, there is no death; and when dead we are not.

III

But it would be a grave mistake to infer from the many instances where

the influence of Aristotle can be detected in Freud that psychoanalysis was a by-product of the Peripatetic school or, for that matter, any other doctrine or group of philosophical doctrines. That is because Freud, aware of his speculative tendencies, firmly and ruthlessly tried to check them by adhering to modern scientific methodology and following its basic rule of drawing conclusions only after ample data had been carefully gathered and inspected. For years it was under the microscope, on slides and in test tubes that he searched for answers to the questions that occupied his mind. It was along this line of intensive, meticulous, persistent work that he was trained before he set himself the task of trying to understand the riddles of human behavior and to unravel its motives and determinants.

Another fortunate coincidence occurred during that period to complement Freud's scientific way of reasoning. In 1879, he was asked, through the recommendation of Brentano, to translate some of J. S. Mill's essays. Whether Freud accepted this task to pass time or to earn a little money, as Jones suggests, it is warranted, knowing Freud's erudition and curiosity, to suppose that he did not stop with the mere drudgery of translation. One might safely speculate that he read such views of Mill as those on utilitarianism, association or his book, *System of Logic*, which was the most important formulation of modern scientific methodology since Bacon's *Novum Organum* which in its turn complemented Aristotle's *Organon*. It is also intriguing that one of Mill's essays, translated by Freud, dealt with Plato's theory of reminiscence, the revival of memories, long standing, but forgotten, in the mind.

It will be noticed that we have not mentioned in the foregoing account some other traceable links between Freud's theories and several other thinkers such as Schopenhauer, Herbart, or Fechner. These were intentionally overlooked not only because of the boundaries of this paper, but also because in the presence of giants, human beings, whatever stature they may have, can hardly attract the attention of the observer.

Historical facts and chronological order do not justify any undue emphasis on the influence of a Herbart or a Fechner in Freudian psychology. True, Freud might have studied, during his last year at the gymnasium, Lindner's handbook on psychology, which was avowedly based on the Herbartian system. However, one can hardly infer from this probability that Freud gained much from this book at that stage in his development. Not only was he disinclined all through his life to read, let alone absorb, books on psychology, but in his school days he had not yet decided on a career. He was still playing with the phantasy of being a lawyer or a politician. Even if Freud, later on, had become acquainted with Herbart's views, either directly or through Meynert's lectures on psychiatry, there is enough disparity between the basic principles of Freud's psychology and that of Herbart to out-shadow their similarities. What similarities there may be are due to Freud's familiarity with the original earlier sources, which were the forerunners of such concepts as that of the unconscious, association, or pleasure.

When the works of Freud have been more fully studied, and when more historical investigation has been undertaken on his readings or his library, it may become more evident how much he has derived from the thinkers who preceded him across the ages. The incompatible array which he picked from, not only shows his outstanding reach and explains much of the complexity in his theories, but it also demonstrates what a daring intellectual attempt he made to put together such a large assortment of contradictory views about the human nature and the human mind.

His work becomes more impressive when we realize that he did not adopt the easy way of building up a theory through speculation. True, he used an armchair, as many thinkers do. But he used it to listen, to observe and collect more and more information that would sustain or refute ideas that he might have stored in his memory from his precursors. Fully aware of the requirements of modern scientific method, morally and intellectually equipped for it and trained to follow it, he started with certain ideas as hypotheses to be checked and verified in order to build up a theory. This was and still is the method for dealing with every psychoanalytic case.

That psychoanalysis also proved to be of help to certain individuals in their emotional distress does not mean that it will survive only as long as it is useful or popular. Sometime in the unforeseeable future, a shorter or a non-psychological therapy may be discovered, as Freud himself said. But the basic concepts of psychoanalysis are probably destined to remain the core of any psychology of the human mind at any time and in any place.

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TOWARD A DYNAMIC TRACE-THEORY*

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This paper is not offered as an exposition of Freudian psychology; many are far better qualified to deal with the problem from this viewpoint. Rather, it is an attempt to show how *another* line of thought leads to conclusions which are rather similar to those reached by Freud, and which may perhaps be profitably compared with his formulations (as reached, for example, in *The Interpretation of Dreams*, in *Beyond the Pleasure Principle*, and elsewhere).

Do the mental activities of which we are unaware consist solely of forces which are pressing for an outlet in expression? Or is there, on the contrary, a residue of "silent" or inactive material, old memories, systems of mental and motor habits, dependent perhaps upon sheer *traces* in the nervous system, with no inherent tendency to push their way into expression? The question may be asked in another way: Is the whole world outside of consciousness "dynamic," or is only a part of it dynamic, the small "dynamic" part directing and controlling the remainder? This is the question with which I will ask my reader to struggle, in the hope that clarification may make a real difference to the understanding of man. It is a very old question, a question that has agitated theoretical, experimental and clinical psychology for decades, yet a question so difficult that I am not sure that even today it can be properly formulated, let alone answered.

Suppose you have spent a leisurely hour reading the Sunday *New York Times*, have had the radio on part of the time and have picked up some music and weather forecasts. Suppose the children have run in and out of the room, and you have glanced out of the window to see whether it was likely to rain before the picnic could be organized. Unexpectedly a friend from a distant State calls up. He is driving, is in a nearby town and would like to look in on you. You agree. He soon arrives, and the rest of the day is spent quite differently from the way in which you had planned. Our question now is this: What has become of all the "contents of consciousness" during the hour or two before he called? Let us agree that most of it, at least, is now part of the preconscious system. But has it simply been quietly put away "in mothballs?" Does it reappear only when specific cues, specific reminders, are given, or does it have a *push of its own*, forcing all of it, each at the appropriate time, to make its way into later consciousness and expression?

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We know, of course, that "day residues" may appear in dreams. We know likewise that much which was not clearly attended to, as well as some that was clearly attended to, may appear in dream or waking fantasy. But do we really know that this is true of the bulk of the material? It is conceivable that odds and ends which happened to be closely related to deep preoccupations have this capacity to instigate later action; yet it could still be true that 99 per cent of what passes through consciousness simply reverts to an inactive state and lies there. From this viewpoint the *traces* upon which memory, fantasy and thought depend are passive until aroused and activated. From another viewpoint the traces are *continuously active*; they are all, so to speak, struggling to come to life again.

Although some oversimplification is involved, I would like to narrow down the question to this form: Is the dynamic material which emerges in consciousness always driven by instinctual processes pressing for expression in the motor system (or, of course, in consciousness, since consciousness is the avenue to voluntary decisions and to action)? Is all motivation an expression of instinctual forces of the type recognized by psychoanalysis and most other psychologies, namely, the visceral system? Can those activities which are *not* related to the visceral system, namely, those which belong to the perception of the environment and those concerned with striped-muscle response to this environment, act as true motivators; can they share on equal terms with the visceral system in the control of conduct? Is conduct always due, in the last analysis, to visceral factors? Or does the world of sight and sound, the world of smells, taste, touch, warm, cold, pain, *and of the impressions and traces which they leave upon us*, likewise initiate, motivate, and control our conduct? I am referring not simply to the sensory contact with the external world in the service of visceral needs, but to the possibility that there are true *needs* which are anchored not to the visceral, but to the world of the senses.

To gain perspective, let us look at the psychological tradition before the era of psychoanalysis. The major tradition in psychology with reference to the unconscious can be said to begin with Aristotle's distinction between "having" an idea and looking "at" an idea; roughly the distinction between mental process alone and mental process *attended* to. This distinction was given new life by Leibnitz in the late seventeenth century; was given a prominent place in German psychology in the eighteenth century; and at the beginning of the nineteenth was handled in sophisticated fashion as a basis for modern education in the work of Herbart and his great experimentalist-follower, Hermann Ebbinghaus.

Herbart's doctrine is that awareness may be either very obscure or very clear; that there are *levels* of clarity from those at the highest level which are easily noted, down to those at which an object just begins to escape our attention, on down into a subthreshold region in which activities are carried out without our knowledge. The doctrine presupposes, moreover, that there are many different activities going on in the living individual at a given time, each with its own level of awareness, and each therefore capable of coalescing with or interfering with others. This conception of a large number of, so to speak, units of conscious activity—"concepts" Herbart calls them—might at first be confused with an atomistic conception of "conscious elements." Actually, in the entire German tradition from Leibnitz on, conscious *activity* must be written in place of conscious "elements"; for Leibnitz had held that ideas have their own intrinsic dynamic, their own *push*. Since the doctrine of inborn drive or instinct was not well developed, it was assumed that the energies which impel to action were dynamic "traces," *i.e.*, energies inherent in the ideas or concepts themselves. For Herbart the concepts *are*, we may say, *pushes* and *pulls*.

Let us illustrate this from Herbart's educational principles. The child at first assimilates sensory impressions, one at a time. They are then connected. The sight of the mother is connected with her voice and both of these together are connected with expectations regarding what she will bring to him or do for him. A system of ideas is thus built up. This system of ideas is, however, not static, but dynamic. Each element has its own energy. Each idea is compatible with or incompatible with each other idea. Now these ideas form clusters, almost in the manner in which atoms form molecules. Before long the mind becomes a rich composite of many sensory components. It cannot, however, at any one time contain within clear consciousness all of these ideas, and some sink below the threshold of consciousness and make up a vast realm of unconscious, yet active ideas. The fact that not all ideas can be contained within consciousness at once results in what amounts to a form of repression. But there may be at any time reactivation and reappearance in consciousness of any idea or cluster of ideas. If the ideas are once conceived actively, they are capable of forming alliances or making war upon one another. Now this notion led immediately to the development of the doctrine of the "apperceptive mass," the vast system of related ideas which lie in the background of a child's mind and with reference to which each impression has to be gauged. A child does not approach a new experience with an empty mind, a blank tablet. Rather, it is what his mind has already assimilated and built together which predetermines the way in which a new impression will be understood, and the form in which it can be accepted.

The reader may be puzzled by a formulation so similar to that which we take for granted today. We take for granted the emotional readiness of the child in terms of the system of prepared ideas which can or cannot make place for a new impulsively-oriented idea. This dynamic conception, actually kept alive to some degree by Helmholtz's ingenious recognition of unconscious factors involved in perception and in judgment, received experimental application in the brilliant pioneer studies of memory carried out in the late 1870's and in the 1880's by Ebbinghaus; hence it entered the systematic psychology of the late nineteenth and early twentieth centuries. Unconscious mental processes were systems of dynamically directed ideas which at the time could not appear in consciousness. This conception was given a vivid and dramatic form at the laboratory at Würzburg (1901) in connection with the discovery of "determining tendencies" which led a sensory impression to be interpreted in one way at one time, in another way at another time; the concept of *set* or readiness, which has, one might say, almost re-written all modern psychology. For today the assumption of set is a primary assumption of the experimentalist and the theorist of the academic world. It is in a sense a dynamic theory of the preconscious and of the unconscious.

Actually, it was in the psychology of Frederic W. H. Myers, contemporary with the early work of Freud, that the conception of a dynamic unconscious was first systematized. Myers, one of the founders of psychical research and an earnest investigator and believer in the reality of psychic powers far transcending those which we are ready to define today, looked upon consciousness as but a meager and limited portion of the total person. He developed the now hackneyed conception of consciousness as that portion of the iceberg which is above the water, while a vast mass lies below, and stressed the forever active searching, goal-oriented activities of the subconscious. He developed, under the term *subliminal*, the notion of a selfhood constantly striving for expression through many channels, including both normal and paranormal, healthy and sick. In the effort to make contact with all that was fulfilling of one's higher nature, the very forces which bespeak pathology to the psychiatrist may bespeak creativeness or inspiration, or the intensity of mystical or of paranormal achievement. In his theory of genius, Myers developed magnificently the conception of the sudden welling up of a vast system of creative energies seeking to find an answer to some great problem, suddenly in a flash taking a shape recognizable at the conscious level: the "subliminal uprush" through which the scattered and distraught, uncoordinated and self-defeating energies of a vast system of potentialities leaps into a single integral act of scientific or artistic creativeness. It was because the subliminal had such energies, range, potentialities that the poor little sphere of personal consciousness

could take and gratefully use all that was offered. Consciousness was necessary, but it was because of the dynamic subliminal that the energies became available. Myers shows here and there the influence of Janet and yields to the temptation to think of split-off ideas, but if one takes his work as a whole, notably the chapter on "Genius" in his volume *Human Personality and its Survival of Bodily Death* and the concluding chapter on "Trance, Possession and Ecstasy," one realizes the essential congeniality between many of his ideas and those of psychoanalysis, a fact signalized by Myers' notes in the mid-nineties on a work by Breuer and Freud in 1894 to which the British public was as yet completely unresponsive.

Perhaps enough has been said to indicate that the conception to which Sigmund Freud made his way had in common with Herbart the conception of dynamically controlled ideas which at the time were not in consciousness. But the reader will note that for Herbart the idea had its dynamic *just because it was an idea*; no questions about instincts needed to be raised. The dynamic was not related to the life instinct, nor, indeed to the tissue system of the person. One might almost say that there is in Herbart a flower without a stem, a blossom without dependence upon the sap derived from roots in contact with the soil. Indeed, it is hard to see where ideas in Herbart's system derive their dynamic. For Freud it was necessary to think in terms of energies depending on biological forces. Here we find ourselves far from the world of Herbart. And whereas with Herbart the potential idea simply becomes an actual idea as it moves upward across the threshold, with Freud the idea undergoes transformation. Or we might more accurately say that the ideas which appear at the conscious level are different from those which take shape unconsciously.

This means that the Freudian conception of the unconscious not only utilizes Herbart's contribution but likewise involves a theory about the *dynamic conditions under which any given idea can appear at a conscious or preconscious level*, and the dynamic conditions under which ideas are forcibly kept from becoming conscious or preconscious. We assume a transformation process by which, as a result of censorship and the economic principle, an over-determined resultant at the conscious level expresses a multitude of forces in the unconscious.

So far, we have concluded that the conception offered by Freud has great advantages, and that it has something definite to offer which rectifies and in some ways supersedes the classical conception which comes down from Leibnitz and Herbart. It related the instinctual life to the problem of levels of awareness. It would, however, be a great mistake to conclude that Herbart's scheme is completely superseded; indeed, the intrinsic tendency of all that lapses from consciousness to *return again* to consciousness, unless counter-cathected, was stressed by Freud,* and psychoanalytic ego psychology has an important place for this tendency.

Moreover, modern forms of clinical and experimental observation suggest that the sensory apparatus and the cognitive activities of man are themselves enormously important to the fulfillment of human nature and are just as much a part of the intrinsic demand-structure of human beings as are the demands related to the vital organs. Little children and, for that matter, little apes, little monkeys, little dogs, little mice, show a large preoccupation with the sensory world. As psychoanalytic theory provides (*cf. Beyond the Pleasure Principle*, pp. 30–32), they are not simply driven by their viscera; they are driven by the demand qualities of objects surrounding them. Consequently, the world of consciousness is not simply the world which escapes censorship or the world related to executive functions. It is to a large degree a world of direct sensory appeal. We do not have to resort to any doctrine regarding the censorship or the struggle between instincts to allow for the fact that after a period of inactivity, the organism turns again to the fascinating world around it. It is not just the "return of the repressed" that is involved here. It is not just the removal of a barrier that allows a submerged component to reappear at the surface.

This leads to the view that what will appear in consciousness will depend to a large degree on the intrinsic appeals of the materials, as well as upon their dynamic history and their fate at the hands of repressive forces. As a matter of fact, as would be suggested by naïvé everyday observation, experimental evidence seems to show that the issue of whether a thing is to appear in conscious and preconscious systems, or never gain access to these systems, would depend largely upon the constitutional intensity of the various needs and the life history of satisfaction of these needs.

The reader may have begun to wonder whether the thesis is seriously maintained that even the most *passive*, casual, uninteresting material which lapses from consciousness has an intrinsic "push" of its own, its own inherent tendency to reappear in consciousness. The reasons for entertaining the belief that this is in fact the case are first, the rather suggestive empirical material from perserveration, reminiscence, hypnagogic imagery, and sheer "idle fancy"; and second, the theoretical importance of the issues relating to *summation of stimuli*. The principle of *summation*, as developed by Sherrington (a principle having much in common with Freud's "overdetermination") is that multiple sources of excitation in the central nervous system converge upon a "final common path," so as to eventuate in *one* organized response. From this point of view there is always

* Freud, Sigmund: Regression, in *Collected Papers*, Vol. 4, pp. 89–90; and The Unconscious, in *Collected Papers*, Vol. 4, p. 122. London, Hogarth, 1946.

irradiation of energies in the central nervous system; every neural activity has *some* tendency to discharge into every other activity; no region is ever wholly "silent" or passive. When fresh excitation is received some of it follows a narrow specific channel, but some of it overflows into other channels, often far removed from the primary centers of activity. Consequently, even though a given region of the nervous system may, at any given time, be *relatively* quiet and have a rather *low* tendency to discharge into other regions, its level of activity rises and falls as it is played upon by other activities—notably those which respond to dominant *wish* or *set* operative at the time. The material which wells up into consciousness is therefore an expression not of the processes going on in a single relatively passive region, but of a rich system of summated (or overdetermined) energies, which played upon like an Aeolian harp, capture and express the preoccupations of the organism as a whole.

There is another fundamental problem upon which Freud made a series of profound observations, but with reference to which some material highly relevant for our purposes seems to have been overlooked. This material deals with the *unconscious formation and functioning of habits.* I refer here especially to investigations in the nature of the conditioning process, partly the work of American, but mainly the work of Russian investigators, particularly in the years since the death of Pavlov. These materials are summarized in the textbook by Bykov.* An attempt will be made to indicate in a few words the character of their contribution.

Bykov points out that the psychology of the cognitive functions has been mainly concerned with the world of responses to the external environment. This is the world of exteroceptors, connections in the central nervous system and effector responses. The learning process, notably the conditioning process, exemplifies itself in the process by which a response is attached to a new exteroceptive stimulus. The dog, originally salivating to the nosing and chewing of meat, is soon exhibiting salivary responses to the buzzer, metronome, color wheel, or whatever exteroceptive stimulus has been paired with the original unconditioned stimulus to the salivary response. We can observe all this. It moves rapidly. We learn to think of learning as something at the cognitive level in which exteroceptive stimuli are shifted about, taking over control of responses which earlier they had no power to control.

But, Bykov proceeds to say, there goes on within us a continual chain of reflex and reflexlike responses in which the vital organs are involved, processes related, for example, to circulation and digestion, processes partly controlled by the autonomic nervous system, all of which we think of as utterly mechanical, utterly *unconscious*, and which, as a matter of fact, are unconscious likewise in the psychoanalytic sense. These processes are ordinarily regarded as *constitutionally* chained together. They exemplify the classical conception of the chain reflex. Let the animal bite and swallow; the series of responses in the internal vegetative system related to digestion, peristaltic movements, and so on, must follow. All this, says Bykov, has led us to forget that there is no basic difference in physiology between the chaining process which we call learning, as it exemplifies itself with reference to the exteroceptive stimuli, and as it exemplifies itself in the conditioning of the interoceptive responses. The interoceptive responses are conditioned to one another, as well as to exteroceptive situations. There is, therefore, a vast world of supposedly completely innate, or if you like, instinctive or inborn, neurological function which, says Bykov, may prove upon examination to be the result of learning in the same fashion as the responses to exteroceptive stimulation. He goes on from this theoretical point to the empirical investigation of "interoceptive conditioning," with a place provided for the conditioning of the proprioceptive system. He shows in point of logic and in empirical detail that the learning process is essentially the same at the various levels.

Now this is enormously important for our theory of the unconscious, for it suggests that the unconscious "mechanical" activities and the conscious or self-related activities of the adult human being may differ only in the degree to which they are chained to exteroceptive conditions. There is no philosophical nor empirical reason why the proprioceptive and interoceptive reflexes should in themselves involve awareness or should not involve awareness. We may surmise that the important thing is that what we call awareness is a system of functions related to exteroceptive cues, particularly the faces and voices of people around us from whom we receive signals, and the eyes and ears to which we in turn deliver stimulation through our responses. For the world of social communication is, of course, an exteroceptive world. It has to be. We are in communication also with our own vital organs and our own muscles as much as we need to be, but we do not make the fine differentiations which are associated with consciousness. We experience rather the blur which shows itself in malaise or the dead weight of hesitation, blind resistance, or unutterable conviction, or mystical intuition, none of which processes has undergone that splitting and differentiating process which we find at the level of fine exteroceptive response.

So far, the Pavlovian material can be squared with the Freudian; for the exteroceptive (non-instinctual) material is predominantly conscious, related to the outer world, and to the reality principle, while the interoceptive corresponds to the unconscious, the instinctual. But the formation of

* Bykov [Bykow], K. M.: *Grosshirnrinde und innere Organe.* Berlin, FEB, Verlag Volk und Gesundheit, 1953.

sensory-motor habits, and indeed the connecting of sensory components with one another, belong to the conscious (and the preconscious) system; yet they have their own intrinsic drive, they are often independent of the visceral components. The Pavlov system (and the experiments of learning theorists who base their work largely upon Pavlov) point clearly to the *active*, rather than the passive role of *sensory traces*.

Now all this leads to the question whether our psychological system has within it a place for memory materials which are, aside from the push of the instinct, dynamically active, that is, materials which have a tendency to return to the conscious-preconscious system. Or are we dealing only with *traces*—traces which are not conceived to be in themselves pressing forever to return from preconscious to conscious status, nor indeed from unconscious to preconscious status, but simply treasure in the treasure chest, or seeds waiting through the winter for the spring rains to allow them to sprout? From this viewpoint energies would operate at particular regions in the mental apparatus, activate particular trains of association, but leave great reaches of inactive or silent material waiting, so to speak, to be knocked or dragged into active status by the operation of a fresh stimulus from without, as when we are reminded of an old experience or, "kindle to life" when something becomes relevant to the satisfaction of a need. Are we a system of energies with instinctual cathexes and countercathexes calling the tune for the emergence or inhibition of every experience through which we ever passed? Or are we, in point of fact, a system of potentialities from which the active preoccupations of the moment draw material relevant to the life task of the moment, and material which tends, *on its own power*, to push back into circulation?

I think the latter view, which is compatible with the Freudian view, is at present more useful. There is much evidence now for the reality of "sensory drives"; sheer routine response to sensory stimulation, *e.g.*, to sight, sounds, smells, and for motor (or activity) drives, not dependent on visceral excitations; likewise strong evidence that these impressions well up into consciousness ("reminiscence" or "perseveration"). Some of this material is close indeed to the material encountered in discussing repetition compulsion. The point here is that the drives involved are not clearly related either to eros or to thanatos; they appear to be made of pure sensory material. Secondly, there appear in semi-sleeping states, in febrile and in drug-induced states many vivid sensory components from earlier experience, which emerge as if they had been "waiting till they were called for," perhaps aroused because of the removal of inhibitions or because the feeling-tone of a given bodily state was once associated with them, and when this feeling tone recurs, they arise by association. In either event it would appear likely that the sensory components are active and insistent in their own right, not because they are surrogates of an instinctual process.

Thirdly, the evidence of Adrian and others regarding "spontaneous" discharge of nerve-cells puts an end to the conception that the brain is passive except under bombardment from the viscera; the cortical cells are never completely at rest. When the actual projection areas are involved, we necessarily encounter "spontaneous" sensory activity.

This way of thinking suggests that sheer ideas, however affect-free they may appear, are dynamic in the sense that they tend to push into the action system and that they tend to facilitate and to inhibit the action potentialities of other ideas. As Herbart pointed out, the idea is intrinsically a dynamic conception, not because it is related to an instinct, but because, in a sense, it *is* an instinct. It is an energy system or drive, just as much as is a tension in the hollow viscera. To look at a light, to hear a voice, to suffer a cold breeze on the cheek, is never passive reception alone, never sheer conscious content; always something which sends energy into new paths, reactivates traces. Perhaps the traces are themselves always active in some degree. There is, then, a "dynamic unconscious" where we least expected it. Even when free of all instinct theory, whether Freudian or other, it turns out that every idea, every sense impression, every feeling, in short, every conscious content is itself redolent with energy expression, a true energy package. And when it lapses from consciousness it continues to exert its pressure toward expression.

So where do we stand? We soon find in the light of these experimental studies in psychology and neurology that the dynamic conception has prevailed. It appears improbable, even in the case of the oldest memory trace, that there is a sheer trace or imprint in the nervous system, which can only languidly and like a dead weight respond to the pressure of energies elsewhere. The energies are shot through the system. The ideas, whether conscious or preconscious, correspond to physiological structures which probably forever go on pushing. On the other hand, we seem with equal clarity to be led to the conclusion that it is not because of instinctual forces of the libidinal type that the preconscious operates dynamically.* On the contrary, the instincts are simply a special case. They are simply *one kind* of energy expression.

As a matter of fact, this is exactly what we should expect from general physiological considerations. Energy pours in all the time from three primary sources, the outer environment, the inner environment, and the great gateway where interaction occurs, namely, the proprioceptive

* With the *unconscious* we are not here concerned.

or kinesthetic system. As Sherrington so well pointed out, we are subject to the *perceptual* stimulation of the exteroceptive, interoceptive and proprioceptive systems. Experimental psychology shows that perceptual responses to the environment always contain all three of these. We can no longer believe that a man, as he sees or hears, is simply using eyes or ears. As a matter of fact, affect and impulse, adjustment to and interpretation of every stimulus involves the participation of the proprioceptive system, and at the same time, reverberating responses from much of the interoceptive system, as well. Objects have meaning, affective relevance, pertinence to our purposes, by giving us continuously this intricate harmony, this fantastic orchestration of the three great systems. From such a point of view, the bombardment from the interoceptive or visceral system is not different in its ultimate dynamics from that of the proprioceptive or the exteroceptive. When acutely hungry, thirsty, tired, sexually excited, angry, frightened, there may indeed be a tempest of interoceptive stimulation, but since the brain and the muscles are still there, they are always involved in the integrated response. This is a way of saying that the dynamic of the instinctual, as defined by psychoanalysis, differs only in intensity from the dynamic of other contributions from other parts of the total organic system. The basic thing about an organism is that it pools many energies into an orchestrated response of one or another type of adaptation.

This means that it is not only the instincts or instinctual residues in the psychoanalytic sense that are the dynamic pushes to behavior. They are of enormous importance and at times overwhelm the individual, but they are simply vivid exemplars of a very general tendency to energy release and redistribution, in which the sensory and motor systems are as important as the visceral.

DREAMS AND DAY-RESIDUES: A STUDY OF THE POETZL OBSERVATION*

By LESTER LUBORSKY, Ph.D.† and HOWARD SHEVRIN, Ph.D.†

It was an agreeable surprise to Freud in the midst of his depressing circumstances during World War I to learn that Otto Poetzl was to give a lecture at the University describing experimental work confirming Freud's work on dreams. "Freud went to hear it and reported the strange feeling he had at being once more in Wagner-Jauregg's auditorium and this time listening to one of his assistants supporting psychoanalysis."[13]

Poetzl was led by his work on the problems of perception defects in aphasic patients to studies of peripheral vision of normal people. He observed that, when shown a picture very briefly, a person reports seeing only a small part of it, but if he is asked to bring in a dream on the following day, he will report details from his dream which go far toward completing the picture that was seen the day before! Poetzl believed Freud's dream theory could explain this and Freud added a footnote to the 1919 edition of *The Interpretation of Dreams*, hailing Poetzl's work as "an important contribution to the part played by recent material in the construction of dreams. . . ."

Only recently has anyone attempted to repeat Poetzl's observation, systematically drawing from it major implications for dream theory.[4] Fisher, like Poetzl, found dramatic similarities between what was left out of the subject's first report about the picture and what was recovered by the dream. Our initial interest in the observation was to provide a more carefully controlled repetition of the original experiment than had hitherto been done, and then to use it to explore the differing styles people have of incorporating pictures as day-residues in their dreams. We expected these styles to be related to the typical defensive styles of the person. Here we were following the lead of Rapaport[20] who considered the Poetzl findings as demonstrating the operation of repression even in the usual development of a percept. The Poetzl observation struck us as remarkably well suited to the tracing of vicissitudes through which a percept comes into consciousness. Through it the course of a percept could be traced from the superficies of the mental apparatus, to its linking with the deepest layers of the personality, and then to its emergence into consciousness in the form of a

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† The Menninger Foundation.

ım, *i.e.*, after being affected by the defensive and adaptive modes of the eiver.

ut the few modifications (mainly additions) we introduced for purposes ɔntrol made us more sensitive to hitherto overlooked conditions under :h the phenomenon occurs. We became curious about Poetzl's statement what the subject omits at first appears in the dream and what he sees ly does not; we wondered whether there were other determinants in lrawing and description of the picture of what would be recovered by lream. The earlier experience with the observation suggested that only ns could recover what the person "fails to see" in the picture; we ed to know whether other states of consciousness could do the same. ındertook to explore the conditions under which the phenomenon s and then to take a new look at its nature. This is a partial report of rch in progress; it describes our earliest experiences with the tech-, and the framework of concepts that appear best able to account for henomenon.

Procedure

ɜ 28 people* who took part in our research had also participated in perceptual studies at the Menninger Foundation (to be reported in a ɔming monograph by Gardner, and others[9]). Our explanations to ɜubject about the nature of the experiment could therefore be brief: is a study of perception, on how people see the world. It is similar to of the studies you have taken part in before." A summary of the ctions follows:

session: Immediately after the examiner flashes the picture, the t is asked to describe what he saw as fully as he can and draw it. rawing and description are repeated. At the end of the session he is to "write down upon awaking any dreams you have tonight."

session: The subject describes what he saw in his dreams. His tions are obtained. "Day dreams" are then elicited: "Close your ɛt a picture come to mind, let me know when you have one." The ; gives associations to these "imagined pictures." Inquiry is then ɔn connections the subject can see between the dream (the "imagined ") and the picture he described the day before. A third drawing and tion of the original picture is made. The subject is then allowed to ıe picture on the screen at his leisure and connections are explored ɜ the picture and what he has drawn, dreamed, and imagined. basic elements of this procedure are essentially the same as those

re were also 10 trial subjects on whom we developed our procedure.

used by Poetzl; we stuck to his procedure except where some additions helped bring the phenomenon into sharper focus:

1. None of the other experimenters (Poetzl,[19] Malamud,[17] Malamud and Lindner,[18] and Fisher[4]) consistently used the *same* picture for all subjects. A constant picture gave a baseline from which could be assessed the nature of the "Picture pull" and individual differences in response to the "same" stimulus. (The picture is reproduced in Figure 1.)

2. We needed to elicit all that became conscious to the person immediately after seeing the picture, and we therefore asked the subject to draw and describe what he saw twice. Both drawings and descriptions of the picture were completed within three to five minutes after viewing the picture. Then, at the next session, before being shown the original picture and after he had described his dreams, the subject was asked to draw and describe the picture a third time. By the repetition of drawings and descriptions, we could note the changes that provided clues to what would happen in the dream, and learn more exactly which elements of the picture went in and out of consciousness, which stayed conscious, and which remained (descriptively) unconscious. (Of course, the last, in practice, is a combination of some unreported preconscious impressions, some repressed unconscious impressions, and some elements of the picture that were never registered at all.) We have thus shown how decidedly the dream picture, with its recovered elements of the original picture, stays segregated in the person's mind from what can become conscious through the more usual modes of remembering. Even though a subject may recover a great deal by his dream picture, his actual *drawings* of the picture as he remembers it remain essentially the same.

3. One has to be very careful to catch everything the person says. There is such a state of flux in what the person is aware of just after having seen a picture so briefly,* that it is necessary to make a sound recording to be sure not to miss some of the nuances.

4. We became convinced of the importance of using a complex picture with many separable elements—cars, buildings, trees, and so on. Such a complex picture simplified the verification of a similarity between the dream picture and the actual picture. If many elements from the picture appear simultaneously in the dream, it seems a fair inference that the stimulation of the picture rather than other influences was responsible.

To appreciate properly the subjects' performance, the stimulus picture should be inspected by the reader. Figure 1 is a black and white reproduc-

* We had intended using the same one-hundredth of a second time exposure as Poetzl and Fisher, but found by electronic calibration of our shutter (Ilex No. 4 Acme, Ilex Optical Co., Rochester, N. Y.), that actual time exposure when set at one-hundredth was one-fiftieth of a second. These types of shutters are inexact, but our time exposure proved consistently to be around one-fiftieth of a second. Thus we succeeded in our aim of providing each subject with about the same stimulus conditions in terms of length of exposure. This possible difference in time exposure from that of the Poetzl and Fisher experiments (none of the earlier experimenters report an exact calibration) may not be crucial, as is suggested by the work of Fisher[19] and Malamud and Lindner,[18] both of whom obtained the phenomenon with exposures of a half a minute.

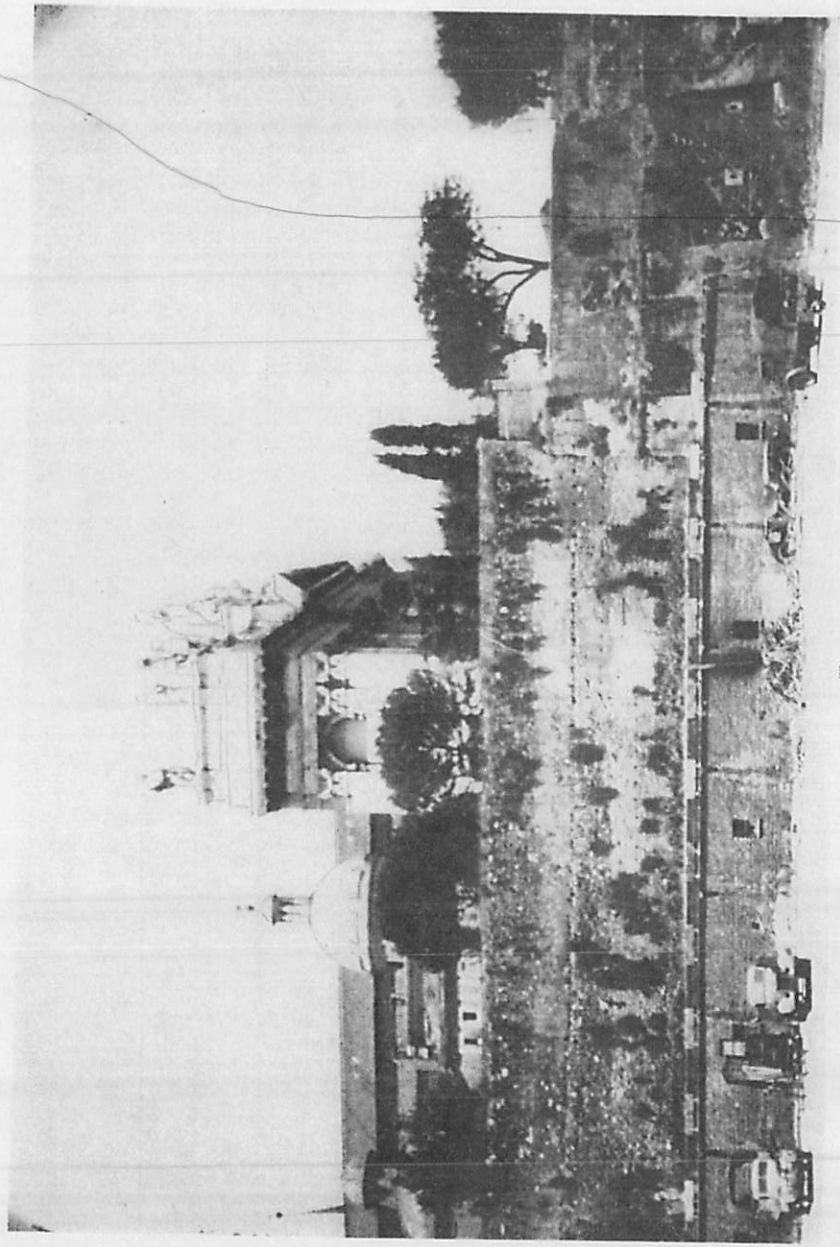

FIGURE 1

tion of our colored slide entitled "Inside Ancient Roman Wall."* The major elements of the picture to which our subjects most frequently responded were, starting from top to bottom, the statuary on top of the building, the "tower" (façade of the building) the trees and shrubbery on either side of the building, the wall, and the three vehicles at the foot of the wall.

Frequency of the Poetzl Observation

Little is known about how commonly the phenomenon discovered by Poetzl occurs. Although both Poetzl and Fisher implied that it is not rare, neither reported on how frequently the reciprocal relationship between perception and dreaming was encountered in his own work.

In our experience, of 28 experimental subjects, 18 reported a dream or several dreams. In all but two of the 18 cases, the relation between the picture presented and the dream picture was clear. In other words, if our sample can be trusted and the non-dreaming cases are not different from the others, by means of a dream a person can usually recover more than he thought he saw. In a number of subjects, recovery was so gross and dramatic that when the original reproduction was compared with the dream reproduction, almost all of the essential elements of the picture were there. Our data therefore support the original observation of Poetzl and those of other experimenters on the existence of the phenomenon and tend to argue for its universality. We are aware, however, that the way the results are presented here does not constitute a rigorous experimental verification of the existence of the phenomenon. Our attempts in this direction are reserved for a later report.

Extensions of the Poetzl Observation

A number of things learned about the conditions under which the dream-perception relationship develops supplement Poetzl's initial observation and enrich the implications of his finding. Poetzl stressed that the *missing* parts of the picture would show up in the dream. Additional signs in the initial report of the perception enabled us to predict what would appear in the dream. Each sign is listed together with an illustration of a successful prediction:

1. Mentioning an aspect of the picture without including it in the drawing.†
   Case #33: The subject referred to a "little bit of green" but did not indicate

* National Picture Slide Company, N.Y.C. Slide #9, Italy, 80.

† Most people could *say* slightly more than could be drawn. For some, it appeared to be less of a commitment to describe something than to draw it, although there were a number of subjects who drew *more* than they described. One early repetition of the Poetzl study[1] attempted to explain it mainly on the basis of the subject's difficulty in reporting what he saw; pictures are difficult to translate into words.

its presence in any way in his drawing. One of his "imagined pictures" of the following day was of a baseball field with its stretches of green outfield.

2. Erasing or going over the same lines for emphasis or through uncertainty.

   Case #35: By retracing part of the lower right border of his drawing, the subject emphasized that part of the object adjacent to the border had been "took off." It was predicted that an object would appear in his dream with something cut off. Since cars were omitted it was further predicted that cars would appear. In one of his "imagined pictures," the subject described seeing an automobile with a damaged fender that had just been in an accident.

3. Important changes from the first to second description or drawing.

   Case #27: Although there was no indication of any change in the subject's description, the "road or river" in the subject's drawing increased in width from the first to the second drawing. In one of her dreams, the subject spoke of roads that "seemed to be wide and gray just like in that picture I saw."

4. Special uncertainty about any part of the picture.

   Case #27: The subject expressed uncertainty about the flat stretch in front of the wall, referring to it alternately as a "road or river" and finally decided that it was a river. Her dream "corrected" this mistaken choice and dealt with a street intersection.

5. Any explicit denial of something in the picture.

   Case #28: The perspective from which the picture was taken, was of particular concern to this subject. She said, "I would imagine it was taken from a non-aerial view but it was above the ground—I mean *it wasn't looking down*—it was looking kind of across." In contrast to this denial of the bottom two-thirds of the picture, both of her "imagined pictures" dealt in some detail with that portion of the picture.

6. Any strong distortion of the affective tone of the picture.

   Case #28: Initially the picture was seen as a cathedral or school tower "very pleasant, quiet, and sunny . . . " In her second imagined picture the subject described the discomforts of a trip up the Grand Canyon on mule back. The rocky trail was cold and windy—decidedly a less pleasant scene than that first described.

7. Any strikingly autistic elaboration of the picture's contents.

   Case #32: The subject saw and drew the picture as a Sherman tank. His dream and two "imagined pictures" were concerned with "revolting from authority."

Ego States and the Recovery of Percepts

If Poetzl's observation can be generalized to include perceptual distortions other than omission, perhaps the dream itself is not the only case of a changed ego state that can be effective in recovering the picture. Our assumption at the outset had been that *substantial* recovery would take place only in a dream state. Poetzl, Fisher, the first ten trial subjects, and the first eleven experimental subjects provided no real exception to this assumption. One possible exception among the first eleven subjects did not appear too inconsistent; a "picture" came to him just before falling asleep when he was close to a dream state. For the next subject who came without a dream, the experimenter decided to ask him to close his eyes and to let any picture come to mind, and then draw and describe it. Surprisingly, these made-to-order images acted much like the dream in recovering the missing parts of the picture. In fact, some of the best and most complete recoveries were achieved by these "waking dreams." This recalled that Poetzl wrote about two other unusual states through which some recovery of elements of a picture also took place: the hallucinations of patients with alcoholic hallucinosis and the eidetic imagery of persons who are so gifted.

When most subjects came in with their dreams for the second session, they usually had no idea that the dream had captured anything of the picture they had seen the day before. Several were aware of having dreamt *about* the picture, but not of having regained parts that were missed; two subjects thought they had recovered some part of the picture in their dreams. These two subjects were among the most sophisticated about the nature of the experiment. Conscious connections between the dream and the picture did not usually begin until well into the second session. With some subjects, it came about while discussing their dreams and their associations to them. With most, it began when they saw the picture for the second time. No subject noted immediately the obvious additions that the dreams had made to his initial perception of the picture. Almost all subjects, on the other hand, were at first astonished at how much they had missed in their initial perception of the picture. Often the similarities between the dream picture and the actual picture were discovered with restrained curiosity, but without surprise. Seeing connections began as an exercise under the direction of the experimenter, rather than an exploration of personal meanings in which the subject felt warmly involved. During the session, with time for leisurely inspection, subjects typically became more and more impressed by the connections, and more and more curious to know why and how they came about.

Excepting a few who were closest to our professional group, our subjects did not seem as interested in exploring the personal meaning of these connections as was Fisher's group—perhaps because his were mainly patients and he could not avoid a doctor-patient relationship. Two of our subjects saw no connections between their dreams and the picture (nor could the experimenters); their dreams (in manifest content) seem to have dealt more extensively with the relationship with the experimenter than with the picture.

Largely, connections made by the subjects between the dream picture and the picture presented were limited to *visual* rather than *symbolic* similarities. This may be yet another way the subject tries to keep separate the dream and the picture, as if they represented two different and largely antagonistic levels of experience. The same separateness is maintained between the "imagined picture" and the memory of the actual picture, al-

though connections are slightly easier to see than between the dream picture and actual picture.

Discussion

In clinical experience, the patient's revealing "unknown" percepts via dreams is not strange. It was one of Freud's major discoveries that what a person cannot remember about himself directly, he can "remember" in his dreams and in the artificially altered state of consciousness called "free association." One of our techniques (repetition of description) was first used by Freud when he asked his patients to retell their dreams and noted the changes from an original written version.

Psychologists are familiar with a variety of imaginative productions—TAT stories, Insight Test, MAPS Test, House-Tree-Person Test—in which the "manifest content" of the patient's stories contain clues to defensive activity. It is less generally known that even without an "imaginative production" but through straight description of pictures one can elicit signs of defensive activity (as well as the usual thematic material), and with it construct a dynamic analysis of the person.[10]

The Poetzl technique, therefore, is at home in the clinical family of projective tests and therapeutic devices. What needs to be made clear is how its particular effects are produced and what new light it casts on the many puzzling relationships among dreams, character structure, and behavior.

If a person omits the vehicles from his drawings, we might speculate that the unconscious meaning aroused by vehicles, together with his way of handling such thoughts and impulses, require that vehicles be kept out of awareness. Why, then, should they come back in the dream? We can get a better perspective by first considering the more general issue of why the picture and elements of the picture rather than the countless other potential "residues" of the day are dreamed about at all on the night after the first session.*

Why dream about the picture? The conditions of the experiment make it likely that what is shown on the screen will be dreamt about. The main factors are: the nature of the external stimulation and the relationship established with the experimenter. In World War II, knowledge that *short visual presentations* heighten the interest and attention of a person led to the use of short exposures in teaching aircraft recognition.[15, 16]

In many subjects, because the picture is shown so briefly that it is impossible to take it all in, a *lack of closure* is set up. Most subjects said they became curious and tried to recall what was in the picture between the first and second sessions. In some subjects, the hankering to complete the picture persisted with a baffling tenaciousness. Even more than a suggestion to dream about the picture, it becomes a challenge to the person to recall what he saw; it can be experienced either as a problem he sets for himself or one that has been set for him. Going to bed in this frame of mind, it is no surprise that the dream should continue the dreamer's frame of mind. It is like the mathematician who dreams of a solution after wrestling with a mathematical problem.

The relationship with the experimenters is of special importance in determining the use of the picture in the dream. Imagine coming to an experiment in a psychiatric institution. You have come a few times before for relatively standard experiments. This time, the psychologist flashes a picture, gets your drawing and descriptions of it and then asks you to bring in a dream for the next time. This is a startling request to most people, about which there are considerable mixed feelings. Most subjects, even those who report dreams, feel the need to prepare an "out" for themselves by saying "I don't often dream." Dreams are among our most private thoughts; this is believed even by people who put no faith in dream analysis. So the request sets up in the person two opposite wishes: to share his private thoughts with the psychologist, and the fear of sharing intimacies with a person he does not know. Thus, the nature of our experimental conditions is conducive to its being handled by the subject in regressive ways. As Fisher[4] emphasizes, the dreaming and bringing in of the dream is often influenced by powerful *transference wishes*, especially the wish to get well, and voyeuristic-exhibitionistic impulses.

The importance of the relationship with the experimenter was brought home to us by the effect it had upon the production of dreams. Of 28 experimental subjects, the first 14 were either relatives of members of the staff, or had once been connected with the Menninger Foundation. Of these 14 subjects, *12* dreamt "on request." The proportion was quite different in the remaining 14 cases whose only contact with the institution was as subjects. Of these 14 people, only *6* reported dreams. When the relationship was too distant, "suggestion" was often of no avail in producing dreams; possibly the transference wishes were insufficiently activated or, without the support of a close relationship, were too threatening to bring in even in the form of a dream.

It is clear, however, from the way many subjects behave and describe their experience that *suggestion* plays an important part in the dreaming about the picture. This is also what Fisher[4] observed with his subjects; most subjects interpret the request to bring in a dream as a request to dream about the picture.

All these factors tie in on different levels. Consciously, the person tries

* Our procedure of experimental introduction of day-residues mainly influences the manifest content of the dreams; the underlying meanings probably remain unchanged.[7]

hard to remember what he saw—he experiences a lack of closure. This and other non-transference motives get powerful support from the usual transference wishes, *e.g.*, to see something forbidden, something sexual, or to please the experimenter. And in close conjunction with the showing of the picture and the arousal of these aims, the experimenter asks him to bring in a dream. It is almost as if in this way the experimenter is suggesting that *this* will be the road to closure and the satisfaction of the transference wishes.

Why dream about the picture? Now we can come back to the question of why additional contents can be included in the dreams that were not in the drawings.

The fact that many contents are worked into the person's dreams as day-residues, suggests that they have become linked with conflictual unconscious meanings (the latent content of the dream). A process of "neutralization" or "divestment" must occur if the picture elements with the threatening connotations are not to pop into consciousness in raw form. In our experiment, several conditions affect the ease or difficulty with which this defensive neutralization will take place: (1) time of presentation, (2) period of time permitted *after* the presentation and *before* the description is required, (3) clarity of the picture as a recognizable object, (4) strength and threatening quality of those needs or wishes that fit in with the content of the picture, (5) emotional climate of the experiment. The first two are the ones we most tamper with in flashing the picture and requiring immediate description. By reducing the exposure of the picture to a mere "flash" we are robbing the person of an opportunity to check his developing percept against reality. By requiring that he report immediately on what he sees, we leave him little time to organize into some stable unit whatever elements of the picture have become conscious.

Yet, by our conditions, we only exaggerate processes that occur in "normal" perception. Freud[6] makes a useful analogy between the problem of the conscious mind in apprehending a dream and in apprehending any percept. "Our waking (preconscious) thinking behaves toward any perceptual material with which it meets in just the same way in which the function we are considering [the psychical function which carries out secondary revision of the content of dreams] behaves toward the content of dreams. . . . In our efforts at making an intelligible pattern of the sense impressions that are offered us, we often fall into the strangest errors or even falsify the truth about the material before us." He says further, "In my opinion, even the demand for the dream to be made intelligible as a perceptual event, may be put into effect before the dream attracts consciousness to itself. From then onwards, however, the pace is accelerated, for at that point a dream is treated in the same fashion as anything else is perceived. It is like a firework, which takes hours to prepare but goes off in a moment."

In our experiment, we prepared in advance the picture that "goes off in a moment." By the brevity of the exposure we further increased the similarity of the task to that of apprehending a fleeting dream picture. Even without the brevity of the exposure, the analogy would remain. The Poetzl phenomenon has been shown to occur also at longer exposures.[5, 18] It may, however, occur under the longer exposure conditions with fewer distortions and less often. It is at least consistent with our supposition that it would happen less often, that Malamud and Linder[18] reported the phenomenon in only 21 per cent of their cases.* In tampering with the time of exposure and other necessary conditions, we only increase the sphere of operation in which secondary elaboration can occur, in which anticipatory ideas of the person can become part of what he sees, and allow greater latitude for the operation of modes of thinking that are referred to as "primary processes." In his analogy on the conscious mind's apprehension of dreams and percepts, Freud takes the position that the normal route in a perceptual act is through the preconscious, with more or less of the percept going on into consciousness. Our experimental conditions differ from more usual ones for perception by increasing the working over by the preconscious and lessening the conscious yield despite the person's conscious intent to "see" and "remember" what he saw.

Because we have cramped and frustrated the free operation of the person's style of neutralizing his percepts or divesting them of their threatening properties, he is likely to be confronted with preconscious or unconscious personal meanings that must be quickly divested from the percepts by emergency measures. The major consequences of this contradiction between the conditions of presentation and state of the ego is that the latent meanings of the objects in the picture threaten to "short-circuit" into awareness. Perhaps this short-circuiting of picture elements helps to explain why these elements are so prominent in the subject's dreams and seem to take precedence over other day-residues.

Implicit in what we have said is the assumption that all perception is initially "physiognomic," in the sense that it is charged with personal meaning. We assume that this is not only true developmentally but that our first perceptual response to *any* stimulus at *any* level of development also partakes of this "physiognomic" character. We mean by "charged with personal meaning" that the stimulus is initially seen in terms of its consequences for need satisfaction. When the child describes a square as a "jaggedy box" he is perceiving the geometric shape in terms of its potential

* Our own calculation from data in their published report.

negative consequences to him. The child must learn to divest the square of its personal meanings in order to see it as a neutral object having geometric properties, in short, a "square." By maturity, the individual has organized a stable pattern of "defenses"—at this stage many of them are better called "adaptive modes"—which work for the most part smoothly and effectively in divesting the world around him of its physiognomic import. We assume further that the personal meaning remains at some level and is unconscious (repressed).

To follow the fate of a percept from its unconscious or preconscious registration to its appearance in consciousness, several other important factors must be taken into account: cognitive styles,* defensive activity, and states of consciousness. Cognitive styles are thought to be more characterologically ingrained and pervasive in perception than defensive measures that arise out of conflict and are drawn on in emergency. The state of consciousness in which the subject's report is elicited can also serve an important defensive junction as is illustrated by studies of borderline children.[2, 3]

The adaptive gains of the process. In many subjects' dreams, the dream seemed to be forcing the dreamer's attention to the correct perception. At times what was missing appeared in the dreams in an exaggerated form. Subject # 11 said in her initial description of the picture, "It's a desert impression because I don't remember seeing any trees." Trees were not even mentioned in her second or third descriptions of the picture. Yet, her first dream was of a hillside covered with trees. The same subject noticed in her report only the blue sky and not the green of the vegetation. In her second dream, everything was green. "I was dressed in green, I was green; the whole recollection of the dream was green." Dreams are often thought of as distorting reality; here the dreams clearly operate to correct mistaken conscious impressions. Freud comments on this possibility in his last work.[7] He describes his experiences with a "chronic paranoia in which after each attack of jealousy, a dream conveyed to the analyst a correct picture of the cause, free from any trace of delusion. An interesting contrast was thus brought to light for, while we are accustomed to discover from the dreams of neurotic patients jealousies which are alien to their waking lives, in this psychotic case the delusion which dominated the patient's daytime existence was corrected by a dream."

To explain that exaggeration is one of the characteristics of primary process thinking, accounts for the phenomena in these examples on only one level. It still leaves open the question of the *function* of the thought, even

* A report is in preparation on the effects upon the Poetzl phenomenon of one dimension of cognitive style, "leveling and sharpening."[11, 12, 14]

though we are familiar with the fact that in regressed states we expect primary process thinking.[21]

Referring back to Freud's comment, perhaps the "delusion" created by our experimental conditions is corrected by the dream. This suggests that the ego and its reality-testing functions may be far more mobile and diversified than we think, for it may not only use the perceptual apparatus but the deepest, least conscious layers of the personality to re-establish the all-important bond with reality. It could be argued, however, that seeing oneself as "all green" (as in Case # 11) is a distortion of reality; the reality is only the greenness of the trees and shrubbery in the picture. And, the person's usual lack of awareness of what he has recovered is likewise a turning away from reality. We have chosen to emphasize that even when secondary process conscious productions are not achieved efforts toward reality contact may still be present. The process set in motion when the picture is flashed usually succeeds in neutralizing the potentially threatening transference connotations which are acquired by the picture, thus keeping the percepts "conflict free" and attuned to reality.

Summary

A systematic repetition of the Poetzl experiment revealed the commonness of the phenomenon, the conditions of its occurrence, and led to our developing for it a framework of explanatory concepts. The phenomenon was shown to be a special case of a large process which was signalized by many more evidences of defensive activities than omission of parts of the picture. Recovery of percepts was found to occur under other conditions than the dream state.

We interpreted the phenomenon of recovery via the dream state in terms of Freud's classic theory of the binding accomplishments of "dream work." An understanding of the Poetzl observation has much to teach us about the normal adaptive process of neutralization in our everyday waking perceptions.

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Book Notices

A Psychological Approach to Accidents. By Norman Roberts Lykes. $2.95. Pp. 136. New York, Vantage Press, 1954.

There is an acute need for a comprehensive text on this subject. This reporter's version of the psychological approach to accidents is poorly written and poorly organized. The author proposes a system of legal penalties for motor vehicle accident repeaters which consists of suspending their licenses for increasing lengths of time with each accident. He would have those involved in serious accidents referred to a state driving clinic and then, if necessary, to a psychotherapist. Such a person could not regain his license until he had obtained a certificate from a competent psychiatrist or psychotherapist stating that his accident proneness was cured. (Harry Levinson, Ph.D.)

Education of Mentally Handicapped Children. By J. E. Wallace Wallin. $4.50. Pp. 485. New York, Harper, 1955.

"The basic credo of this book is that every child, abnormal no less than normal, is entitled under our Constitution to an education befitting his particular needs. . . . The primary agency for the education of mentally deficient or mentally handicapped children is the public school system." The author, in this exceedingly thorough treatment of the great complex of problems involved in educating the mentally handicapped, supports his thesis with numerous facts and figures. Contents touch upon a variety of areas, including a historical orientation, suggestions for the organization and administration of special classes, and recommendations for special class curriculae. (Ernest A. Hirsch, Ph.D.)

Treatment in Psychiatry. By Oskar Diethelm, M.D. $9.50. Pp. 545. Springfield, Ill., Charles C Thomas, 1955.

It is a real contribution to American psychiatry that Oskar Diethelm carries on faithfully Adolf Meyer's concepts of holistic psychiatry. Some terms have been changed and some new techniques have been added and some of the uniqueness of the original "psychobiology" concepts has disappeared in its general absorption into the prevalent contemporary American concepts. But what are they talking about, those people who speak of warring schools of psychiatry? This says about what we all believe, and do. I had a small part in this book by suggesting some changes in one chapter which Doctor Diethelm requested, graciously accepted and acknowledged. Twenty years ago neither he nor I nor any of our proteges could have conceived of the possibility of such mutual approval. (K. A. M.)

Sexual Hygiene and Pathology. By John F. Oliven. $10. Pp. 481. Philadelphia, Lippincott, 1955.

This manual for physicians provides a wealth of information related to health and hygiene problems of sex. The author, a psychiatrist, eschews the symptom-prescription type of approach in favor of a straightforward frankness relating to sexual problems brought to the attention of the physician. Comprehensive discussion of psychological as well as physical factors sets this book apart from many other works in the field. Moreover,

normal aspects of sexuality in the various stages of the individual's development are discussed and described. In addition, pertinent considerations in medical marriage counseling provide helpful source material for the physician. (Dean Johnson)

Der Tafeln-Z-Test. By HANS ZULLIGER. Pp. 259. Bern, Hans Huber, 1954.

The Z (for Zulliger) Test consists of one achromatic, one chromatic, and one black and red ink-blot. Each blot is aimed at eliciting a certain type of response (i.e., whole, color, movement). Administration, scoring, and interpretation follow the usual Rorschach procedure, and results are claimed to be similar to those of the Rorschach. Many protocols are discussed, frequently in conjunction with Rorschach and Behn-Rorschach records. The author's style is informal, with distinct moralistic overtones. His framework is psychoanalytic, with unusually heavy emphasis on hereditary factors. The test's main *raison d'être* appears to be its brevity. (Ernest A. Hirsch, Ph.D.)

The Therapeutic Community. By MAXWELL JONES, M.D. $3.50. Pp. 186. New York, Basic Books, 1953. (Published in England under the title *Social Psychiatry*, 1952.)

Doctor Jones' thesis is that the hospital community should be utilized as a therapeutic medium. Government agencies supported this study of the chronically unemployed; patients were selected on the basis of disturbances in working capacity primarily, with or without other manifestations of neurotic illness. The therapeutic aim was to modify the patient's behavior so that he could better cope with problems in real life, particularly in the work area. Statistics and follow-up studies indicate a degree of success which we should note carefully. The major criticism of this book is that it is too sketchy for the report of so important a therapeutic and rehabilitation effort. (Irving Kartus, M.D.)

Mind: A Social Phenomenon. By F. S. A. DORAN. $3. Pp. 182. New York, William Sloane, 1953.

Dr. Doran is apparently a surgeon, practicing in Manchester, England, where he is also clinical demonstrator in anatomy at the University. This book is a philosophical defense, written with brilliant clarity and monistic rigidity, of the strictly mechanistic view of psychology. Its argument is that the human mind is entirely an expression of brain function, and its content is determined by the social forces of tradition, prejudice, fears, hopes and values of other people. The historical review of concepts of the mind is superb. The philosophical point of view is, of course, controversial. (K. A. M.)

Psychotherapy and Personality Change. CARL ROGERS and ROSALIND DYMOND, eds. $6. Pp. 447. Chicago, University of Chicago, 1954.

Rogers and his associates do their usual vanishing trick with the province of psychiatry (whatever its other affiliations) known as psychotherapy. They take patients and—hey presto!—they are clients. They take concepts of psychiatric illness and—hey presto!—they evaporate into thin air. They take good clinical practice and—hey presto!—they distil away one of its most essential elements, namely the aim of the clinician to cure the patient or ameliorate his lot. Not surprisingly they are left wondering "whether there is a reality with which the science of personality may deal." Nevertheless, paradoxical though it may seem, I urge my psychiatrists and psychologist colleagues to read this volume with care and thoroughness. It has much to teach about method and design in research in psychotherapy. (Donald J. Watterson, M.D.)

Break Down the Walls. By JOHN BARTLOW MARTIN. $3.50. Pp. 310. New York, Ballantine Books, 1954.

John Bartlow Martin is a kind of Lincoln Steffens or Albert Deutch of the penology field. He is trying to stir up the public about prisons. I hope he is successful. He has written half a dozen books, at least three of them about crime and prisons. *Break Down the Walls* is his best yet, although it is somewhat unbalanced in that over one-third of it is about the Jackson Prison Riots. His discussion of the American prison system is not textbook stuff; it is good newspaper reporting. It is obvious that he has gone to see and knew what to look for. His impressions of Joliet and some of the other prisons described coincide with my own impressions. (K. A. M.)

Psychology in Industry. By NORMAN R. F. MAIER. $5.50. Pp. 678. Boston, Houghton Mifflin, 1955.

This revision of Maier's 1946 edition is based on the social psychology of the Lewin school. Its chronology ranges from the principles of social psychology to their application in supervisory leadership and then to individual differences and their measurement. Considerably more attention is given to industrial training and industrial counseling than in the previous edition. Each chapter is followed by a laboratory exercise designed to make the preceding text come alive. Despite an attempt to teach counseling in one chapter, including a table which lists examples of good and poor "reflected responses," this stands out among industrial psychology texts. (Harry Levinson, Ph.D.)

The Yearbook of Psychoanalysis. Vol. 10. SANDOR LORAND, ed. $7.50. Pp. 277. New York, International Universities, 1955.

The *Yearbook* is now in its tenth year. This is not a book that one really reviews, but rather one whose publication is merely announced by any reviewer. It is essentially a scientific anthology, of course, where one finds wonderful excursions into clinical practice, theory, history, and the applications of psychoanalysis to allied fields. Especially recommended, as always. What a task it must be to try to decide which twenty-five or so articles one should include in this volume. (Peter D. Fleming, M.D.)

Family, Socialization and Interaction Process. By TALCOTT PARSONS and ROBERT F. BALES. $6. Pp. 422. Glencoe, Ill., Free Press, 1955.

The authors of this book presents a social psychological study of the family with emphasis on the role, structure, and functions of the nuclear family. Evidence is presented to indicate that the change which is taking place in the American family cannot be considered total disorganization but, rather, a transitional disorganization. This volume will be of interest primarily to advanced students of the family in the fields of sociology and psychology. (Dean Johnson)

Man Takes a Drink: Facts and Principles about Alcohol. By JOHN C. FORD, S.J. $2.50. Pp. 120. New York, P. J. Kennedy & Sons, 1955.

Father Ford is a leading Jesuit moralist and he has given thoughtful attention to the problem of alcohol addiction, summarized in this little booklet of 120 pages with forthrightness and clarity. He emphasizes the seriousness of the problem nationally and internationally, the facts and fictions about alcohol, the self-destructiveness of excessive drinking plus its aggressive impact upon spouse, children, neighbors, friends, society, traffic and so on. He gives a useful list of the symptoms of the preliminary, early, and advanced stages of alcoholism (pages 92 to 96) which should be helpful in view of the widespread public ignorance, to which attention has been called, in regard to what a problem drinker is. He also gives a helpful list of books, pamphlets and agencies. (K. A. M.)

Adrenal Cortex. Transactions of the Fifth Conference. ELAINE P. RALLI, M.D., ed. $3.75. Pp. 187. Packanack Lake, N. J., Josiah Macy Jr. Fdn., 1955.

Discussed in this fifth and final Macy conference on the adrenal cortex are the newly crystallized aldosterone, the metabolism of adrenal steroids, and whether ACTH is a single or multiple hormone. Included in this volume is an index to all five conferences on the adrenal cortex, making them accessible for reference. There is a group photograph of the participants. (Samuel Zelman, M.D.)

Educational Psychology. By KARL C. GARRISON and J. STANLEY GRAY. $5. Pp. 505. New York, Appleton-Century-Crofts, 1955.

Textbook writers in educational psychology inevitably face the problem of how within a single volume to cover adequately this expanding field. In addition, Garrison and Gray devote considerable attention to methodology, and even discuss at considerable length such instructional tools as lesson plans. Although numerous charts and diagrams are effectively used, the textual material is necessarily so restricted by this attempt to treat two areas that the beginning student, for whom this text is designed according to the writers' preface, is likely to have difficulty in achieving functional comprehension of the basic principles and implications of the field. (Nathaniel H. Evers, Ph.D.)

The Two Faces of Man. By JOOST A. M. MEERLOO. $4. Pp. 237. New York, International Universities, 1955.

Two essays are presented, the first, on the sense of time; the second, on ambivalence. Both contain speculative theory liberally sprinkled with interesting clinical observations, philosophic and anthropological background. The essay on ambivalence does not add much to what is already psychoanalytically known about this phenomenon. The one on time, however, contains a good deal that is illuminating and potentially useful as a preliminary organization of facts and speculations which might encourage more systematic theorizing and experimentation in this neglected area. The sophisticated professional may find this work valuable as a stimulus to his own speculation, while the naïvé reader may well find it rather esoteric. (Richard Siegal)