

Freud on Mind and Body

Barry Silverstein
William Paterson University
Professor Emeritus
Department of Psychology

Author email: silversteinbandc@aol.com

Cite as Silverstein, B. (2020). Freud on Mind and Body (William Paterson Archives)

Abstract:

The author provides a detailed study of Freud's mind-body views. Freud developed a pragmatic dualist-interactionist view maintaining a distinction between the material body and the mental subjective world. He focused on what went on within the mind in relation to the necessity to reduce tensions experienced within the lived-in body, caused by physiological changes in the material body. He focused upon a particular link between mental processes and the organic substrate of sexual physiology.

INTRODUCTION

This essay will explore Freud's confrontation with the mind-body relationship. His early clinical work presented him with a number of puzzling questions: Using hypnosis, how can spoken words cause physical changes in a patient's body (see Silverstein & Silverstein, 1990), and how can hysterical patients' self-generated ideas concerning their bodies, particularly thoughts rooted in sexuality, produce physical symptoms (see Silverstein, 1985, Silverstein, 2003)? In facing these conundrums, Freud did not function as a detached philosopher, he created explanatory theories that made sense to him based upon his own experiences with the clinical material he had at hand.

We shall begin by reviewing certain elements in his educational background that influenced Freud to believe that mind (thought, ideas) should be distinguished from the physical body (brain) within particular conceptual paradigms, including the concept that thoughts (ideas) might have some independent power, some efficacy to produce effects in the physical body.

MIND AND BODY

In thinking about what distinguished mind from body, Freud had been greatly influenced early on by his philosophy professor, Franz Brentano who taught that it was necessary to distinguish between psychical or mental processes and physical-physiological processes. Mental phenomena represented a distinct phenomenal realm, subjective reality, with distinctive properties not found in the material world. Brentano (1874) defined mental phenomena as "... those phenomena which contain an object intentionally within themselves...." "No physical phenomenon exhibits anything like it." (p. 89). Motivational factors—subjective intentionality—were extremely important in determining the flow of thought. What was mental had to be understood in terms appropriate to the quality of subjective reality, the mental world could not be equated with, or reduced to, a physiological substrate (see Brentano, 1874, pp. 63-64).

Brentano (1874) argued that "...the relationship between mental phenomena and concomitant physiological phenomena is actually very different from that which exists between the inorganic phenomena with which the chemist deals and the organisms with which the physiologist deals...the difference between physiological processes and chemical and physical processes really seems to be only that physiological processes are more complex....the more comprehensive concept of chemical phenomena has been shown to apply uniformly to inorganic changes and to life in the physiological sense. We can hardly say the same thing...when we apply it to the physiological and psychological realms...if we turn our attention from the external world to the inner, we find ourselves, as it were, in a new realm. The phenomena are absolutely heterogeneous....It was for that very reason that we separated the psychological and physical sciences as the main branches of empirical science..." (pp. 50-51).

Brentano taught Freud that an empirical scientist should not limit himself to a one-sided materialism in thinking about mind and body. One could be both scientific and empirical while taking a two-sided approach, one which avoided a strictly physicalistic and reductionistic stance. (See McGrath (1986), Cohen (2002) and Whitebook (2017).

The influence was so strong that, when he was still a student of Brentano in 1875, Freud characterized himself as "a former swashbuckling stubborn materialist," even though he felt uncomfortable abandoning previously held faith in what was generally held to be correct, and he was trying to keep an open mind (in Boehlich, 1990, p. 109). Between 1874 and 1876, Freud took five courses with Brentano (Merlan, 1949). These were the only nonscience courses Freud

took at the University, and not one of these was a course which Freud was required to take. (Jones, 1953, p. 37).

For six years, between 1876 and 1882, Freud worked in Ernst Brücke's Physiological Laboratory carrying out histological research, microscopic studies on the structure of the cells of the nervous system (see Solms, 2002). Freud greatly admired Brücke as a teacher and mentor. Brücke and Emil Du Bois-Reymond were pioneers in the development of an understanding of the mechanisms of physical forces in physiological processes. They also were long-time associates. They both believed that physiological processes had to be understood as the lawful expression of physical and chemical forces at work in the body. In 1842, Du Bois-Reymond had written to a friend: "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 organism. In those cases which cannot at the time be explained by these forces one has either to find the specific way or form of their action by means of the physical mathematical method, or to assume new forces equal in dignity to the chemical physical forces inherent in matter, reducible to the force of attraction and repulsion." (quoted in Bernfeld, 1944, p. 348). Although the quote is accurate, Cranefield, 1970, pp. 47-48, corrects an error in Bernfeld's citation). This often-quoted youthful oath was a rebellion against the then-current belief in a unique vital force found only in living organisms. However, Brücke's and Du Bois-Reymond's oath applied to the explanation of physiological phenomena. It was not addressed to an understanding of mental phenomena or the relationship between mind and matter. From the work of Brücke and Du Bois-Reymond Freud was influenced to expect lawful, deterministic, energetic forces to operate in mental phenomena as they did in physical phenomena, but neither Brücke nor Du Bois-Reymond advocated the reduction of higher level mental processes to the exact physical and chemical forces at work in the body (see Cranefield, 1966a, 1966b, and Gregory, 1977, pp. 145-163).

Freud greatly admired the eminent physiologist Du Bois-Reymond. In January 1875, Freud told a friend that if he could have financed the project, he had hoped to spend the 1875-76 winter semester in Berlin, in part, to attend the lectures of Du Bois-Reymond (in Boehlich, 1990, p. 84). In a March 1875 letter, Freud made reference to his familiarity with Du Bois-Reymond's famous 1872 lecture entitled, *On the Limits of our Understanding of Nature* (in Boehlich, 1990, p. 107). Thirty years after his youthful 1842 oath with Brücke, even though he rigorously defended the truth of a mechanistic account of the world, Du Bois-Reymond argued that there

were certain limits beyond which scientific understanding could not go. Faced with the questions how are nerve processes related to conscious experience and what is the relationship between nerve processes and the qualities to which they give rise, Du Bois-Reymond (1872) stated that he would have to say, “ignorabimus,” we will not be able to know; we will ignore it (p. 464).

Further, Du Bois-Reymond (1872) stated: “The more unconditionally the natural science researcher recognizes and accepts the limits set for him, and the more humbly he resigns himself to his ignorance, the more strongly he feels it is his right to come to his own opinion about the relationship between mind and matter, by way of his own induction, unmoved along the way by myths, dogmas and proud old philosophers.” (Original German text Du Bois-Reymond, 1872, pp. 460-461, as translated in Silverstein (2002), p. 439).

Mindful of Brentano’s views and Du Bois-Reymond’s warning that there might be limits to human understanding, Freud adopted and maintained a skepticism toward any uniting of the mental and the physical into an all-embracing materialistic monism. He was fond of quoting the poet Heine’s derisive comment on metaphysical philosophers who cling to the illusion of being able to present a coherent picture of the universe without any gaps: “With his nightcaps and the tatters of his dressing-gown, he patches up the gaps in the structure of the universe” (see Freud, 1933, pp. 160-161).

Consistent with Du Bois-Reymond’s “ignorabimus” stance concerning the relationship between neurophysiological processes and the existence of consciousness, Freud accepted that consciousness was an enigma whose existence could not be explained by reference to neuroanatomy or neurophysiology. Early in his career in an article entitled “The Brain” (*Gehirn*) prepared for Villaret’s 1888 encyclopedic *Handbook of Medicine*, Freud stated that although there was a lawful connection between changes in the material brain and changes in the conscious mind, he could not understand the nature of the connection between brain and mind. Freud (1888b) stated: “Although the mechanical process is not understood, it is the actual presence of this coupling of material changes of conditions in the brain with changes in the state of the conscious mind which makes the brain a center of psychic activity. Although the essence of this coupling is incomprehensible to us, it is not haphazard, and on the basis of combinations of experiences of the outer senses on the one hand and inner-perception on the other we can determine something about the laws which govern this coupling.” (original German text 1888b p. 691, as translated in Silverstein, 1985, p. 209). A full translation of *Gehirn* (1888b) may be

found in Solms & Saling, 1990, pp. 39-86. At the end of his career, in *An Outline of Psycho-Analysis*, Freud (1940) essentially repeated his 1888 statement: “We note two kinds of things about what we call our psyche (or mental life); firstly it’s bodily organ and scene of action, the brain (or nervous system) and, on the other hand, our acts of consciousness, which are immediate data and cannot be further explained by any sort of description. Everything that lies between is unknown to us, and the data do not include any direct relation between these two terminal points of our knowledge.” (p. 144).

Concerning what lay between the material brain and conscious experience, in 1888 at the start of his career when he was trying to understand symptom formation in his hysterical patients, Freud conceptualized the existence of unobservable mental processes that were not part of ordinary consciousness, but that, nevertheless, could affect the functions of the material body. Freud (1888a) argued that “...the psychical changes which must be postulated as being the foundation of the hysterical *status* take place wholly in the sphere of unconscious, automatic, cerebral activity. It may, perhaps, further be emphasized that in hysteria the influence of psychical processes on physical processes in the organism (as in all neuroses) is increased...” (p. 49). Following Charcot, with whom he studied in Paris from late 1885 to early 1886 (Freud (1893b), Freud believed that it was ideas (patients’ *thoughts*) concerning parts of their body outside ordinary conscious awareness or control that had the power to *realize themselves objectively* in shaping the nature of *physical representations* in hysteria. He was not viewing unconscious psychical processes as identical with concomitant physical brain processes; they were qualitatively different variables that interacted in ways that Freud believed were lawful, in spite of the fact that their mode of coupling remained incomprehensible to him.

In arguing for the role of mind-body interaction in the causation of hysteria, Freud (1888a) stated that an “...extremely important characteristic of hysterical disorders is that they do not in any way present a copy of the anatomical conditions of the nervous system. It may be said that hysteria is as ignorant of the science of the structure of the nervous system as we ourselves before we have learnt it.” (pp. 48-49). Continuing with this theme later, Freud (1893a) explicitly argued for the role of ideas in causing hysterical paralyses. He pointed out that hysterical paralyses conformed to the patient’s images of anatomy, not to anatomical facts: “... the lesion in hysterical paralyses must be completely independent of the anatomy of the nervous

system, since *in its paralyses and other manifestations hysteria behaves as though anatomy did not exist or as though it had no knowledge of it.*” (Freud’s italics) (p. 169).

By the time that Freud wrote his 1891 neurological monograph, *On Aphasia*, it is clear that he also had been influenced by the British neurologist, John Hughlings Jackson (see Freud 1891, pp. 54-66). Hughlings Jackson had insisted that it was a pragmatic methodological necessity for neurologists to treat the mental and the physical as distinctly different phenomena. They were knowable by different methods, and they required distinct, separate mentalistic and physicalistic modes of description and explanation. “It is impossible to study cases of diseases of the brain methodically if we confuse psychical states with nervous states,” (1881 p. 9). “There is no physiology of the mind any more than there is psychology of the nervous system,” he insisted (Hughlings Jackson, 1890, p 417). Similarly, Freud (1891) questioned: “Is it justified to immerse a nerve fiber, which over the whole length of its course has been only a physiological structure subject to physiological modifications, with its end in the psyche, and to furnish this end with an idea or a memory?” (p. 55).

Hughlings Jackson assumed a parallelism, or concomitance, between mental states and conditions of the nervous system. However, his parallelism was not strictly an ontological position that was a definition of the mind-brain relationship. Rather, he saw psychophysical parallelism as a pragmatic position from which to advance the study of the brain. Hughlings Jackson wished to avoid getting caught up in unanswerable metaphysical questions raised by a mind-body interactionist position, and he wished to avoid attributing mental properties to neurological states. In 1875 he stated: “We cannot understand how any conceivable arrangement of any sort of matter can give us mental states of any kind...I do not trouble myself about the mode of connection between mind and matter. It is enough to assume a parallelism.” (p. 52). Further, he argued, “I then ask that the doctrine of concomitance be provisionally accepted as an artifice, in order that we may study the most complex diseases of the nervous system more easily.” (p. 85). While Freud might use the two-sided artifice of psychophysical parallelism when considering certain conditions caused by neurological damage, such as aphasia, his observations of the effects of hypnotic suggestion on the body and his psychogenic approach to hysteria required Freud to go beyond the artifice of psychophysical parallelism: when it came to hysteria he had to assume that some sort of interaction between the mental and physical realms occurred in this affliction. (See Meissner, W. W. (2003).

Hughlings Jackson believed that neurologists had to turn to psychology in order to understand the rules, or organizing principles, of the ideational and linguistic accompaniments of complex nervous activities. He proposed an evolutionary, hierarchical model of the nervous system and of mental functioning with lower level mental functioning dominated by a prelinguistic mode of cognition, which followed rules of association different from those found in higher level, linguistically organized mental processes. Freud incorporated Hughlings Jackson's ideas in his evolving conceptions of the dynamics of neuroses, and in his evolving topographical theory of mental functioning, to be discussed below, which he first published in *The Interpretation of Dreams* (1900). For some commentaries on Hughlings Jackson's influence on Freud, see Forrester (1980, pp. 1-62); Fullinwider (1983); Solms & Saling (1986); Harrington (1987, pp. 235-247); Goldstein (1995).

In the early 1880s, Theodor Meynert, Freud's Professor of Nervous Diseases in Vienna, had offered Freud a place in his laboratory to conduct neuroanatomical research. Freud was conducting brain anatomy research in Meynert's laboratory in 1885 when Meynert published his textbook, *Psychiatry* (see Solms, 2002). Meynert (1885, pp. 246-248) argued that consciousness was a function of the level of nervous excitation associated with residual cortical images, those images which acquired the prerequisite high level of nervous excitation automatically rose above the threshold of consciousness. However, by the start of the 1890s, influenced by Hughlings Jackson, contrary to Meynert, Freud adopted the idea that a translation, or recategorization, from lower level prelinguistic modes of thinking in images into linguistic modes of representation was necessary for mentation below the threshold of consciousness to become and remain fully conscious. The possibility of a failure to translate unconscious images into the linguistic categories required for consciousness became a fundamental premise behind Freud's concept of primal repression, and the distinctions between primary and secondary process mental functions, which is discussed below.

Freud focused on sexuality as a two-sided phenomenon which linked the subjectively knowable mental world and the empirically knowable physical world. He saw apparent connections between sexuality in the mental realm—sexual thoughts and intentions—and sexuality in the physical realm—changes in physiology and internal excitation of the nervous system. Basing his reasoning upon such considerations, Freud adopted a pragmatic-dualistic - interactionist position on the mind-body relationship: the mental world had to be observed

through inner-perception and described in motivational-intentional language, while the physical world was observed empirically, and described in terms from physics and chemistry.

Nevertheless, he believed that the mental and the physical interacted in that ideas could produce effects in the body, while changes in physiology could affect motivation and thought. In 1890, Freud specifically argued for the existence of mind-body interaction when he declared: “The relationship between body and mind...is a reciprocal one; but in earlier times the other side of this relation, the effect of the mind upon the body found little favour in the eyes of physicians. They seemed to be afraid of granting mental life any independence, for fear of that implying an abandonment of the scientific ground on which they stood.” (p. 284). Furthermore, concerning neurotic patients, Freud (1890) argued that “...in some at least of these patients the signs of their illness originate from nothing other than *a change in the action of their minds upon their bodies...*” [Freud’s italics] (p. 286). He went on to point out that mental activities could produce such physical consequences as changes in heart-action and alterations in the distribution of blood in the body (p. 287). Freud may have been influenced to think about psychosomatic affects by his reading of Tuke’s (1884) *Illustrations of the Influence of the Mind Upon the Body in Health and Disease*. He underlined many passages in his copy of this volume (Eissler, 2001, p. 360, n.).

Even though the mechanism(s) that governed mind-body interaction remained unknown to Freud, he avoided a reductionistic position. He created a theory of mind which incorporated two fundamentally different classes of phenomena: the mental and the physical (see Silverstein, 1985, 1988, 1989a, 2002, 2003; Silverstein & Silverstein, 1990, and Parisi, 1987). Freud not only asserted that ideas possessed causal efficacy, but it was unconscious ideas following their own associational rules, not discoverable by simple introspection, which most powerfully affected bodily functions. Nevertheless, Freud accepted the view that the puzzling leap from the mental to the physical was inexplicable. According to Freud (1909) “...the leap from a mental process to a somatic innervation...can never be fully comprehensible to us.” (p. 157). Nevertheless, he remained profoundly influenced by his teacher Charcot’s dictum concerning materialist orthodoxy, which left “an indelible mark” upon his mind: “Theory is good; but it doesn’t prevent things from existing.” (Freud, 1893b, p.13).

By the time he completed *The Interpretation of Dreams* in the year 1899, Freud believed that most mental processes were in themselves unconscious and that consciousness itself was determined by unconscious mental processes. Unconscious mental processes were intentional,

and their motivational impetus originated within the body. In neurosis, the underlying organic factor was to be found in the motivational excitation resulting from sexual physiology (see Silverstein, 1985, 2003; Hughes, 1994; Sugarman, 2016). In fact, in 1908, Freud insisted to C.G. Jung: “In the sexual processes we have the indispensable ‘organic foundation’ without which a medical man can only feel ill at ease in the life of the psyche.” (in McGuire, 1974, pp. 140-141). These lines of thinking were the basis for Freud’s topographical theory of mental functioning and his motivational theory of instinctual drives, both of which will be discussed below.

In 1908, Freud told Jung that he had “...absolutely foresworn the temptation to ‘fill in the gaps in the universe’” (in McGuire, 1974, p. 125). Writing to Josef Popper-Lynkeus, Freud (1916) argued: “No doubt the Unconscious is the right mediator between the physical and the mental, perhaps it is the long-sought for ‘missing link’.” (p. 324). Freud accused Popper-Lynkeus, the philosopher, of having the monistic tendency to disparage the difference between psychological and physical phenomena in favor of tempting unity. “But,” Freud insisted, “does this help to eliminate the differences?” (in E. L. Freud, 1961, p. 324). Stressing the need to differentiate what was mental (psychical) from what was physical (echoing Brentano) Freud (1912) told the Vienna Psychoanalytic Society: “If the present speaker had to choose among the views of the philosophers, he could characterize himself as a dualist. No monism succeeds in doing away with the distinction between ideas and the objects they represent.” (in Numberg & Federn, 1975, vol. 4, p. 136).

FROM “THE PROJECT” TO METAPSYCHOLOGY

In *Studies on Hysteria* (1895), Freud argued that memories were excluded from consciousness and became pathogenic as a result of the patient being in conflict with the content of the memories. Such conflict arose because the memory content was incompatible with the patient’s conscious view of self. The patient intentionally repressed or excluded from consciousness ideas that were incompatible with a positive conscious self-image, a psychical act of self-defense. According to Freud (1895), “...we have been led to the view that hysteria originates through the repression of an incompatible idea from a motive of defense.” (Breuer & Freud, 1895, p. 285). The previous year, Freud (1894) had stated: “In hysteria, the incompatible idea is rendered innocuous by its *sum of excitation being transformed into something somatic*. For this I should like to propose the name of *conversion*.” [Freud’s italics] (p. 49).

For Freud in 1895, hysteria and psychic conflict over pathogenic memories involved defense and compromise formation. Excitation associated with an incompatible idea embedded in a repressed memory was channeled into a somatic innervation that produced a physical symptom. This physical symptom was a compromise formation in that it now occupied a patient's consciousness in place of the incompatible idea which it symbolically represented in a manner not consciously recognized—a poetic use of the body to represent, metaphorically, an unacceptable idea concerning one's self. For example: a self-threatening repressed memory associated with a romantic rejection which was "*like a slap in the face*" might be represented physically as experienced facial pain with a facial tic; a self-threatening repressed memory associated with unrequited love and the thought, "*I can't stand it*" might be represented physically as experienced paralysis of the legs; a self-threatening repressed memory associated with a perceived betrayal and the thought, "*I have been stabbed in the heart*" might be represented physically as experienced pain in the chest. During the early 1890s, Freud increasingly suspected that the sum of excitation, the energy misdirected into the nervous system that was converted into a hysterical symptom, was sexual excitation that had been aroused in association with an incompatible repressed idea. The psychological thrust of Freud's early approach to neuroses during the 1890's has been explored at length by Anderson (1962), Stewart (1967), Levin (1978), and May (1999).

Freud had been unhappy with Breuer's theory chapter in their joint publication, *Studies on Hysteria* (1895). While he shared with Breuer a physiological emphasis on an economics of the nerve-force as a necessary part of an explanation of hysteria, he wanted an explanatory model that also could accommodate his evolving explanatory emphases on intentions, conflicts, defense and compromise in hysterical symptom formation. Freud struggled to create a mechanistic model that would be superior to the one he found in Breuer's theory chapter.

On May 25, 1895, Freud told Wilhelm Fliess that "...a satisfactory general conception of neuropsychotic disturbances is impossible if one cannot link it with clear assumptions about normal mental processes." (in Masson, 1985, p. 129). Furthermore, Freud declared: "I am tormented by two aims: to examine what shape the theory of mental functioning takes if one introduces quantitative considerations, a sort of economics of nerve forces; and second, to peel off from psychopathology a gain for normal psychology" (in Masson, 1985, p. 129).

Freud already had expressed a quantitative working hypothesis at the conclusion of his 1894 paper, *The Neuro-Psychoses of Defense*. Here, Freud explained that such reasoning helped him to organize his clinical data: “I refer to the concept that in mental functions something is to be distinguished—a quota of affect or sum of excitation—which possesses all the characteristics of a quantity (though we have no means of measuring it), which is capable of increase, diminution, displacement and discharge, and which is spread over the memory—traces of ideas somewhat as an electric charge is spread over the surface of a body.” (p. 60). This hypothesis already underlay the theory that hysterics needed to discharge energy, originally associated with excessively intense traumatic memories, which Breuer and Freud had put forth in their 1893 preliminary communication, and which they stated again in 1895 in *Studies on Hysteria*.

In April 27, 1895 Freud told Fleiss that he was working on a project he referred to as: *The Psychology for Neurologists*. After returning home from a visit with Fliess in September 1895, Freud told him that he was writing an account of his psychology for him to criticize (in Masson, 1985, p. 139). About two weeks later, Freud mailed two notebooks to him which contained an elaborate mechanistic model which he hoped would be a more rigorous, comprehensive, precise theoretical model to explain the excessively intense ideas found in hysteria and obsessional neurosis, than the mechanical explanation for hysteria supplied by Breuer. These notebooks which Freud never published have become known as *The Project For A Scientific Psychology* (see Freud, 1895b).

Freud introduced the Project by stating that it was his intention “to furnish a psychology that shall be a natural science.” (p. 295). Writing in German, Freud used the words, “*eine naturwissenschaftliche Psychologie*” to refer to psychology as a natural science. The term *wissenschaftliche* is based upon the German word *Wissenschaft* that might be translated into English as “science.” However, while it might be translated as science, the German word had a much broader meaning for Freud than in the limited positivist sense of experimental or laboratory science. In the late nineteenth century German university system, any product of critical scholarship that contributed to the advancement of human knowledge could be included under the broad umbrella of *Wissenschaften*. Thus archeology, sociology, psychology, economics, even Biblical criticism, would be *Wissenschaften* when studied according to certain standards of acceptable scholarship. (Klein, 1970, p. 761n, 817). However, the German university system of the late nineteenth century distinguished between two categories of

Wissenschaften: *Naturwissenschaften*, the natural sciences, and *Geisteswissenschaften*, the human sciences (see Bettelheim, 1983, pp. 40-49). Natural sciences, such as physics, studied the machine that is the universe from an external perspective seeking the laws that determined natural events. *Naturwissenschaften* sought to find the *causes* of natural events: causes were conceptualized as forms of matter set in motion by unobservable energetic forces that followed Newtonian laws. *Geisteswissenschaften*, or human sciences such as history, used a first person perspective, seeking to find *reasons* for human events viewed from the inside: reasons that were conceptualized as intentions. Purposes and meanings.

Even though Freud conceived his Project as part of *Naturwissenschaften*, and even though he began the Project by *representing* different *mental processes* as if they were the mechanical products of a set of hypothetical, functionally differentiated, neuronal structures that were “specifiable material particles,” and he accounted for psychical activity in terms of quantities of energy distributed among hypothetical neuronal systems “subject to the general laws of motion” (p. 295), Freud was not trying to reduce *psychology* to materialistic neurology; what he was *representing* was qualitatively different *mental* phenomena as located within conceptual neuronal systems. He knew there were no then-available histological or neurological facts to support his mechanistic speculations in the Project concerning his functionally differentiated, conceptual neurons (see Amacher, 1965, p. 65). The neurons of Freud’s project were his inventions to try to explain clinical data based upon references to entities and forces mechanically determining mental life (Kanzer, 1973, p. 91); “they were just made-up pseudo-scientific names for psychological functions” (Makari, 2008, p. 73). The Project was Freud’s attempt to build a systematic model of mental functions—his *Psychology for Neurologists*—within the limits imposed by a mechanistic *Naturwissenschaften* paradigm.

Freud began the Project with an elaboration of his 1894 device of conceptualizing a quantitative factor in mental functions analogous to the flow of electric current through neuronal fibers. In the Project, he used physical analogies to conceptualize how qualitatively different mental processes located within the “space” of a hypothetical mental apparatus, the *mind*, were produced by changes in energy flow between hypothetical, functionally differentiated, neuronal systems. He created “a mind-robot, a thinking machine” (Erikson, 1964, p. 31) in his attempt to imagine what the unobservable mechanical causes of mental processes *were like* based upon

analogies to physical, spatial, energy-transfer phenomena; he was not equating the mental with the physical or reducing the mental to its physiological substrate.

In the *Naturwissenschaften* tradition of his time and culture, within his Project, Freud ambitiously attempted to create a comprehensive, integrated model of the mind as a natural machine, but it had to be a model that could accommodate his clinical theory of repression, defense, and the displacement of excessive excitation. In creating a model of the mind based on analogies to the physical world, Freud's goal was to create a conceptual framework to elucidate the hidden reality behind the appearance of consciousness, the Kantian "thing-in-itself" of unobservable, hypothetical entities and forces that determined mental functions. It was Freud's hope that his Project would provide the comprehensive natural science foundation that he believed Breuer had failed to provide for the *Studies on Hysteria*. He also hoped that it would add to the sum total of human knowledge in the field of psychology.

In his struggle to put Breuer's vague emphasis on the role of the distribution of nerve force in hysteria on an explicit, comprehensive foundation, Freud found himself caught in the dilemma of trying to reconcile explanations of mental functioning in terms of objective mechanisms and an economics of nerve force (*Naturwissenschaft*) with explanations of mental functioning in terms of personal meanings and intentions, which required subjective understanding as seen from the inside, from the point of view of the person being observed (*Geisteswissenschaft*). The search for subjective understanding was not part of *Naturwissenschaften*. Freud's clinical emphasis in *Studies On Hysteria*, his explanations of his patients' suffering in terms of their intentions and the personal meaning of their symptoms, could not be accounted for satisfactorily in an objective (from the outside) mechanical model of a hypothetical, conceptual nervous system.

Less than two months before he mailed the project to Fleiss, in a moment of frustration, Freud told Fleiss: "Psychology is really a cross to bear....All I was trying to do was to explain defense...I had to work my way through the problem of quality, sleep, memory—in short, all of psychology. Now I want to hear no more of it" (in Masson, 1985, p. 136). When he mailed the notebooks to Fleiss he told him: "What does not yet hang together is not the mechanism—I can be patient about that—but the elucidation of repression, the clinical knowledge of which has in other respects greatly progressed" (in Masson, 1985, p. 141).

Clinically, Freud interpreted conflict, repression, and compromise formation in terms of personal meanings and intentions. If the Project's hypothetical neurons were only literal "specifiable material particles," then Freud begged the question: how did such physical entities produce human intentions or make critical judgments concerning acceptable or unacceptable meanings if their functions simply were "subject to the general laws of motion?" If the hypothetical, functionality differentiated, neurons were Freud's physical metaphors for the hidden reality behind differentiated mental functions and the level of intensity of ideas, why not simply stay on psychological ground by limiting the discourse to references and terminology which applied to the psychical-mental world, the world of purpose, intention, and meaning? Freud's dilemma was his need to account for repression, in terms of intention and meaning, within the limits of a model of the mind that he believed should conform to a natural science, mechanical conception of mental functioning. For further commentary on the nature of Freud's Project see Kanzer (1973).

Freud remained caught in the dilemma between mechanism and meaning throughout his career. After some continued struggle with the Project, even though he certainly maintained that brain functioning was a necessary basis for mental processes, he told Fleiss in September 1898 that he "...must behave as if only the psychological were under consideration" (in Masson, 1985, p. 326). In the first published presentation of his general theory of mental functioning, *The Interpretation of Dreams*, Freud stated that his attempt to understand mental functioning would stay "upon psychological ground" (p. 536). He would "avoid the temptation to determine psychical locality in any anatomical fashion" (p. 536). Instead, he used spatial-topographical and energistic (electrical and hydraulic) analogies in presenting a model of the mind as an apparatus within which different types of mental processes were located within component parts of the psyche, "the instrument which carries out our mental functions" (p. 536). In describing the functions of the psychical apparatus, Freud (1900) offered the first published presentation of his metapsychology: a number of related hypothetical constructs that he used to conceptualize a hidden reality within the mind—mental agencies and forces (*psychic energy*) and wishes and fantasies that constitute *psychic reality*—the unknown universe behind the appearance of consciousness.

Freud's metapsychological gambit was an attempt to change the discourse of the Project from even metaphorical, neuronal terminology to strictly psychical-mental referents. Freud

(1900) now tried to explain repression "...by venturing upon the hypothesis of there being two agencies," within the psychical apparatus, "one of which submitted the activity of the other to criticism which involved its exclusion from consciousness" (p. 540). However, a psychical agency which could submit another psychical agency to criticism, based on *intention* and *meaning*, and decide which meanings to exclude from consciousness (repression), was pictured by Freud as existing within a psychical apparatus based on a physiological-neural reflex model—a machine functioning to direct the discharge of energy. His metapsychological model of the mind contained an uneasy amalgam of mechanism and meaning. He could not explain his clinical insights within a mechanical mind without positioning agencies capable of intention, judgment, and censorship within the psychical apparatus, as veritable "ghosts in the machine." Freud's therapeutic methods were purely psychological, but his evolving metapsychology contained mixed physicalistic and mentalistic metaphors.

Freud developed two different kinds of theories. His metapsychology was his attempt at portraying the mind as a machine, a psychical apparatus, and his attempt to make psychoanalysis a natural science. On the other hand, his clinical theory, his theory of personal meanings, conflicts, and compromises necessary to understand the personal suffering of his patients, placed psychoanalysis in the tradition of *Geisteswissenschaften*, the human sciences. As George S. Klein (1973) pointed out: "Psychoanalysis is unique...among psychological disciplines because it contains within itself two kinds of theory, one clinical, and one metapsychological" (p.102); a set of principles to guide clinical practice and a general theory of mental functioning. The necessity to maintain the metapsychology, and the relationship between the two theories, has been the focus of continuing debate (see Gill & Holzman, 1976). For some critiques of Freud's metapsychology see several papers by Robert Holt, found in Holt (1989, pp. 171-196, 304-344). For commentary on his confrontation with the telic (intentional) mind, see Rychlak, 1981).

In his metapsychology, Freud linked mental (psychical) processes to an organic substrate in the form of sexual physiology. He assumed the existence of some kind of mind-body interaction without an understanding of the mechanism that made interaction between the mental and the physical possible. Freud saw a pragmatic, dualistic-interactionist view, with sexual processes as the indispensable organic foundation linking mind and body as a necessary assumption for him, the medical man, to feel at ease in the life of the psyche. He saw this assumption as scientifically respectable in accordance with Du Bois-Reymond's famous 1872

pronouncement on human limits to our understanding of nature. Based upon his clinical experience, he reached his own conclusions unmoved by dogma and the opinions of proud old philosophers. And, although he did not acknowledge Brentano's influence, Aviva Cohen (2002) points out that Freud's "view of the distinction and interaction between the psychical and the physical are analogous to Brentano's teachings" (p. 92).

METAPSYCHOLOGY: THE INTERPRETATION OF DREAMS

Freud has discussed the wish-fulfilling character of dreams in his unpublished Project of 1895. Early in 1898, he finished a first draft of the book, *The Interpretation of Dreams*, which would present this thesis in elaborate form. The book was completed in 1899 and published with the date, 1900. Freud considered this book his greatest work.

In *The Interpretation of Dreams*, Freud presented his hierarchical, topographical (spatial) model of the mind. He assigned different mental functions and qualities to different localities within the psychical apparatus. Nevertheless, mental functioning was portrayed as a continuous, dynamic relationship between unconscious, preconscious and conscious mental processes. Unconscious mental processes were based upon pre-linguistic, image (primary process) modes of representation. In primary process, an image was experienced with sensory qualities as though it were a real object; there is no distinction between wish and reality in the unconscious (the pleasure principle). The evolutionary, higher-level, conscious-preconscious system was based upon linguistically structured modes of representation (secondary process), where words clearly were distinguished from the objects they represented (the reality principle). Each level of mental functioning followed its own laws of association, as previously suggested by Hughlings Jackson. Freud portrayed consciousness as determined by unconscious mental processes, without concern for correlated neural substrates. See Freud (1911) for further discussion of his two principles of mental functioning.

In presenting a spatial model of the mind, Freud (1900) gave credit to G. T. Fechner for providing him with a starting point for conceptualizing how the qualitatively different modes of conscious thinking (secondary process), and dream thinking (primary process), could exist within the same mind. According to Freud (1900), Fechner (1889), in his *Psychophysik* (Vol. 2, p. 520), advanced "...the idea that the scene of action of dreams is different from that of waking ideational life." (p. 536). In other words, the primary process thinking experienced in dreams

takes place in a different location in the mind than the location in which secondary process ideas are produced in waking life.

In the psychical apparatus, the higher level mental agency, the conscious-preconscious system governed by linguistically structured secondary process, submitted the activity of the lower level, unconscious, primary process agency to criticism. The preconscious opposed certain unconscious wishes and directed energy, a counter-force (anticathexis), to block the force (cathexis) which would propel unacceptable wishes toward consciousness. This is the mechanism of repression. Nevertheless, certain thoughts that represented the repressed unconscious wish forced their way through in some form of compromise in dreams and in neurotic symptoms. Freud (1900) stated: "The two psychical systems, the censorship upon the passage from one of them to the other, the inhibition and overlaying of one activity by the other...all of these form part of the normal structure of our mental instrument." (p. 607).

During his early student days, Freud most likely was exposed to the ideas of the nineteenth century German philosopher, Herbart, and his theory of unconscious mental functioning, since a textbook based upon Herbart's ideas was required reading for Freud in his last year of Gymnasium (high school). (Jones, 1953, p. 374). Herbart had presented a topographical, spatial model of the mind which contained many similarities to the model proposed by Freud in *The Interpretation of Dreams*. Herbart had argued that the study of mental events must include quantitative considerations. In addition, Herbart's model of the mind contained dynamic and energy-force concepts. "Mental representations which opposed each other produced conflict; 'resistance' was offered to antithetic ideas. Stronger ideas forced, or 'repressed' the weaker out of awareness or below the 'threshold' of consciousness." (Sand, 1988, p. 478). Mental representations below the threshold of consciousness continually exerted a counter-force to propel them toward consciousness.

Ellenberger (1970) has extensively documented the popularity of the concept of unconscious mental life in the late nineteenth century (see also Zentner, 2002). Freud (1900) singled out the philosopher Theodore Lipps for credit in this regard. Freud stated: "In Lipp's words..., the unconscious must be assumed to be the general basis of psychical life." (p. 612). He added: "Everything conscious has an unconscious preliminary stage; whereas what is unconscious may remain at that stage and nevertheless claim to be regarded as having a full value of a psychical process. The unconscious is the true psychical reality..." (pp. 612-613). The

unconscious is the Kantian, unknown, “thing in itself,” behind the appearance of consciousness; “...in its innermost nature it is as much unknown to us as the reality of the external world, and it is as incompletely presented by the data of consciousness as is the external world by the communications of our sense organs.” [Freud’s italics] (p.613).

Freud (1900) argued that the “core of our being” in the unconscious, is wishful impulses derived from the earliest years of our lives (pp. 603-604). Sexual wishes from childhood have been subjected to repression because their fulfillment is unacceptable to the secondary process, preconscious-conscious system. Nevertheless, these wishful impulses “can neither be destroyed nor inhibited” (p. 604), and in spite of the counter-force produced by the preconscious to exclude them from consciousness, substitute thoughts, which, by association, became “...the vehicles of the unconscious wish, force their way through in some form of compromise,” as may be seen in neurotic symptoms. (p. 605). Furthermore, Freud stressed that his theory of the psychoneuroses asserted that it was “...an indisputable and invariable fact that only sexual wishful impulses from infancy, which have undergone repression...during the developmental period of childhood, are capable of being revived during *later* developmental periods...and are thus able to furnish the motive force for the formation of psychoneurotic symptoms of every kind.” (pp. 605-606). In this view, traumatic memories were no longer the prerequisite for adult defense neurosis. Rather, defenses against unacceptable childhood sexual wishes and fantasies (possibly related to childhood auto-erotic activity) were the precipitator of adult psychoneurotic symptoms. While Freud argued that dream wishes invariably derived from the unconscious, at this point he left open the question of the extent to which it was childhood sexual wishes that were the basis for dreams.

In presenting his view that dreams were disguised fulfillments of unconscious wishes, Freud distinguished between the remembered dream, the manifest content, and the hidden wishes symbolically represented in the manifest content, the latent content. The preconscious censorship system masked unconscious primary process wishes by allowing only visual images that were unrecognized symbolic representations of the unconscious wish to appear in the dream. Dream symbols, primary process images perceived as real objects, were formed through the *dream work* which consisted in the process of pictorial representation, condensation, and displacement. Through condensation a number of unconscious ideas were compressed into one visual symbol through which they all were represented simultaneously. Through displacement, attention in the

dream was redirected (misdirected) away from symbols close to the unconscious wish to more remotely associated images, and emotions were redirected from significant images toward less significant images, hiding real emotional connections and meanings which were unacceptable to the preconscious censorship system. Now, the psychical apparatus that carried out the dream work “began to sound more like a poet than a machine” (Phillips, 2014, p. 110).

For example, Freud (1900) reported a dream told to him by a young woman who was not neurotic but was of a prudish and reserved character. She was engaged to be married, but there were difficulties that were likely to lead to a postponement of the marriage. She reported the dream: “*I arrange the centre of a table with flowers for a birthday*” (p. 374). According to Freud, the dream was an expression of her bridal wishes: “...the table with its floral centre-piece symbolized herself and her genitals; she represented her wishes for the future as fulfilled, for her thoughts were already occupied with the birth of a baby; so her marriage lay a long way behind her.” (p. 374). The woman reported that the flowers included “lilies of the valley” and “violets.” Freud interpreted the symbolism of the flowers as representing the woman’s virginity and defloration—the lilies of the valley represented the purity of her virginity and the violets the violence of defloration. The arranging for a birthday in the dream meant that the woman was identifying herself with her fiancé, “was representing him as ‘arranging’ her for a birth—that is, as copulating with her.” (p. 376). The dream gave expression to thoughts of sexual love that Freud believed the woman was too inhibited to think about in her waking life; the dream expressed her wishes for copulation and her fear of being deflowered.

Freud’s approach to the interpretation of dreams was based upon his assumption that strict determinism holds sway in the mind; there were no chance mental events. The manifest content of a dream always was determined by unconscious wishes and the unconscious mechanisms of the dream work. He believed that by interpreting the meaning of dream symbols and associated patterns of free associations, he could infer hidden wishes, conflicts and meanings behind the seemingly irrational manifest content of dreams.

A year after the publication of *The Interpretation of Dreams*, Freud (1901) extended his theory of the unconscious determination of mental events when he published his book, *The Psychopathology of Everyday Life*. Here he argued that normal, everyday, seemingly irrational mental events, such as slips of the tongue, were representations of unconscious wishes and inner conflicts. Freud (1901) stated: “If we give way to the view that a part of our psychical

functioning cannot be explained by purposive ideas, we are failing to appreciate the extent of determination in mental life.” (p. 240). For example, when a speaker consciously intended to say one thing but instead said another, the slip of the tongue was an unconsciously intentionally determined expression of an unconscious wish, a “Freudian slip.” When a master of ceremonies introduced Mr. Jones by exclaiming: “Ladies and gentlemen, I would like to *prevent* Mr. Jones,” instead of the consciously intended *present* Mr. Jones, the slip of the tongue was not an innocent error, it was an indication of the master of ceremonies’ unconscious wish concerning Mr. Jones.

In addition to slips of the tongue, in *The Psychopathology of Everyday Life*, Freud (1901) also discussed the forgetting of names, misreadings and slips of the pen, and a variety of bungled or faulty actions. In each of these situations, he attempted to apply his new paradigm, i.e., to demonstrate how unconscious wishes and psychodynamic processes could interfere with everyday normal psychical functions and produce malfunctions of memory, the substitution of one word for another in reading, writing or speaking, and faulty actions such as losing someone’s address or getting on the wrong train on the way home. In all such cases, Freud argued, an unconscious wish was being expressed in a disguised manner, as was the case in dreams and psychoneurotic symptoms, (see also Freud 1916-1917, pp. 15-79).

In *Jokes and their Relation to the Unconscious*, Freud (1905c) applied his conception of the unconscious determination of mental events to an analysis of humor. As was the case with dreams, he argued that jokes were compromise formations which provided an indirect way to express symbolically unacceptable sexual or aggressive wishes that could not be expressed directly without provoking anxiety or punishment. For example, a sexual wish might be expressed indirectly through the joke: “She has boyfriends by the score, and most of them do.” Aggressive impulses might be expressed by such jokes as: “I take my wife out every night, but she always finds her way home,” or “My husband is a model husband, just not a working model.” For commentary on Freud’s theory of humor and his frequent use of jokes, see Oring (1984).

Over the years Freud modified his view on the wish-fulfilling function of dreams, In paragraphs he added to *The Interpretation of Dreams* in 1919, he offered his view that unpleasurable dreams might be “punishment dreams.” “What is fulfilled in them is equally an unconscious wish, namely a wish that the dreamer may be punished for a repressed and

forbidden wishful impulse.” (1900, p. 557). With the development of structural theory in 1923, to be discussed below, Freud postulated the existence of an unconscious anti-libidinal force which he called the superego that opposed the expression of repressed forbidden wishes. With structural theory, punishment dreams could be seen as an effort to satisfy the demands of the superego in order to preserve parental love and avoid guilt.

In *Beyond the Pleasure Principle*, Freud (1920) confronted traumatic dreams in which the dreamer experienced painful scenes from the past. Such dreams occurred in traumatic neuroses, for example, among war veterans reliving combat experiences, or among patients undergoing psychoanalysis who confronted childhood traumas. Freud (1920) stated: “This would seem to be the place, then, at which to admit for the first time an exception to the proposition that dreams are fulfillments of wishes.” (p. 32). “We may assume,” he reported, “that dreams are here helping to carry out another task... These dreams are endeavouring to master the stimulus retrospectively...” (p. 32). In other words, the function of traumatic dreams was to master trauma rather than to obtain gratification of wishes for pleasure or punishment.

With his invocation of structural theory in 1923, Freud distinguished between dreams *from above* and dreams *from below*. Dreams which arise from below are “provoked by the strength of an unconscious (repressed) wish” (Freud, 1923, p. 111). In structural theory, dreams from below arise from the id (to be discussed below). Dreams from above arise from the ego as attempts to deal with recent experiences, to achieve mastery over traumatic experiences, and to appease the moral demands of the superego. See McLeod (1992) for a review of the evolution of Freud’s theory of dreams.

In the essay, *The Unconscious*, Freud (1915c) expanded on the topographic point of view first published in 1900 in *The Interpretation of Dreams*. “The nucleus of the Ucs. consists of instinctual representatives which seek to discharge their cathexis; that is to say, it consists of wishful impulses (p. 186). He also described the different qualities attributed to psychic functioning according to whether the functioning was truly unconscious or merely preconscious.” (pp. 186-189). What was truly unconscious, or dynamically unconscious, was primary process wishful images experienced as reality: *psychic reality*, the hidden domain of fantasy and dream work. What was merely preconscious, or only descriptively unconscious, was secondary process, linguistically structured thought that was in the form required to make access to consciousness a possibility, if not necessarily a certainty.

MOTIVATION AND CONFLICT: THE INSTINCTUAL DRIVES

In *Three Essays on the Theory of Sexuality*, Freud remained consistent in his pragmatic, mind-body, dualist-interactionist viewpoint when he introduced his concept of the sexual instinctual drive. He explained (1905b): “By an ‘instinct’ is provisionally to be understood the psychical representative of an endosomatic, continuously flowing source of stimulation...the concept of the instinct is thus one of those lying on the frontier between the mental and the physical... The source of an instinct is a process of excitation occurring in an organ and the immediate aim of the instinct lies in the removal of this organic stimulus.” (p. 168). The unconscious mind where the sexual instinctual drive was expressed was seen to be full of wishful images, representing sexual, need satisfying objects required for actions which discharged sexual energy. The expression of the sexual drive had to be controlled and directed by the evolutionary higher level preconscious-conscious system.

In his metapsychological paper, *Instincts And Their Vicissitudes*, Freud (1915a) further explained that “...an ‘instinct appears to us as a concept on the frontier between the mental and the somatic, as the psychical representative of the stimuli originating from within the organism and reaching the mind, as a measure of the demand made upon the mind for work in consequence of its connection with the body.” (pp. 121-122). An instinct has an *aim*, an *object*, and a *source*. The instinctual *aim* is the removal of tension experienced within the body. The *object* is the means by which tension reduction can be achieved, i.e., by directing actions toward objects in the external world, or toward one’s own body. The *source* is the somatic process which generated the energy (excitation) responsible for the subjectively experienced inner tension. While the source and aim of an instinct remained constant, the energy generated by the source of the instinct can be discharged in a variety of ways because many different objects and activities can be substituted for the original object and activity which first was associated with the removal of the particular tension. Freud (1915c) insisted that: “An instinct can never become an object of consciousness—only the idea that represents the instinct can. Even in the unconscious, moreover, an instinct cannot be represented otherwise than by an idea.” (p. 177).

Because, for Freud, many different objects and activities can be substituted for the original sexual, instinctual need satisfying objects and activities, Jonathan Lear (2005) has pointed out, in Freud’s view: “Human sexuality in its very nature is open to variation. Overall, what is getting selected is an inextricable entanglement of sexuality and imagination. Unlike

other animals, human sexuality is essentially imaginative—that is, it is essentially open to imaginative variability. One consequence is that all sorts of activities are going to count as sexual that have no relation to reproduction” (p. 78).

As stated above, in tracing mental life to a somatic ground, Freud theorized that the deep interior of the unconscious mind contained wishful images which were demands upon mental life that originated in the interior of the body. Even though Freud viewed demands for tension reduction as emanating from the physical side, starting with physiological changes in the material body, his psychological-level approach anchored the unconscious mind to the interior of the body defined as a person’s *subjective experience of one’s body as lived from within* (Draenos, 1982). Freud’s pragmatic, dualist-interactionist approach maintained a distinction between the material body and the mental-subjective world which included the subjective experience of the inside of one’s body. Freud’s psychological approach to the instinctual drive as the somatic demand upon mental life focused on what went on *within the mind*, the activation of object-intentional thought—wishes and desires for objects and activities necessary to reduce tensions experienced within the lived-in body, caused by physiological changes in the material body. Whereas in writing about hysteria, he focused on the effect of the mind upon the body; in conceptualizing the sexual instinctual drive, Freud focused on the influence of changes in the body upon activity within the mind. (Silverstein, 1985, 2003; Elisha, 2012; Sugarman, 2016). As characterized by Marcia Cavell (1993): “Instinct is Freud’s weasel word, the courier for negotiating the dark passage between body and mind” (p. 55).

Sandor Ferenczi, a close collaborator and confidant of Freud for over twenty-five years, offered the following account of how Freud’s instinctual drive concept served him in conceptualizing a connection between mind and body. Ferenczi (1933) stated, “Freud became a dualist.” Freud could not embrace a materialistic-monism concerning mental functions because he believed “...that unification is not possible at present, nor in the near future, and perhaps cannot be ever achieved completely. On no account should we confuse Freud’s dualism with the naïve separation of a living organism into a body and a mind.” Freud always was mindful of the neurological substrate for mental functioning. “He pursues his psychological investigations up to the point of human impulses, which he looks upon as a dividing line between the mental and the physical, a line which he does not believe psychological interpretation should cross...” (p. 147). See Silverstein (1997).

In a similar vein, Alfred Tauber (2010) observed: “Basically, Freud divided the mind between the unconscious grounded in the biological and thus subject to some natural causation, and a rational faculty which lodges itself in consciousness and exists independent of natural cause. The critical distinction resides in Freud’s acceptance, as a *psychologist*, of a functional mind-body dualism, and in the higher functions of the mind, he places the repository of interpretative reason.” [italics in original] (p. 116).

Freud (1910c) expanded his theory of human motivation by proposing a dualistic division of instinctual drives into two categories: *ego instincts*, in the service of the preservation of the individual’s life; and *sexual instincts*, directed toward the attainment of pleasure (and species preservation). The striving for pleasure and tension reduction underwent developmental transformations correlated with the maturation of the child’s erogenous zones. He used the term “libido” to refer to the energy (force) of the sexual instinct.

Freud bridged the gap between mind and body with his concept of instinctual drives, and he also used his dualistic drive concept to explain why, in his view, it was human nature to be in conflict with society and, through socialization, to be in conflict with oneself. Ego instincts inevitably came into conflict with sexual instincts: the need for self-preservation—the avoidance of punishment and guilt—required repression of forbidden and taboo thoughts that directed us toward childhood sexual objects and the pursuit of sexual pleasure through the stimulation of pregenital erogenous zones. The dynamic power of unsuccessfully repressed childhood sexual wishes was the force behind neurotic symptoms.

Freud twice revised his dualistic conception of basic human motivation. In *On Narcissism*. (1914b), he introduced a new division of instinctual drives: *ego, libido* (self-love, self-preservation) versus *object libido* (other love, species preservation).

Because Freud had written *On Narcissism* (1914b) more because of the pressure of rival theorists’ ideas than because of the pressure of facts, his zealous defense of sexual libido resulted in a weakening of his previous dualistic instinctual drive theory that had postulated a clear distinction between a driving force which was sexual and a restraining force which was not sexual, with qualitatively different energies at the roots of sexual and ego drives. Now it appeared there was only one group of drives all energized by libido. His conception of psychic conflict, defense and compromise still required a mental structure that was attuned to reality and that could oppose the sexual drive by means of its own source of energy. In 1914, Freud wrote to

a colleague: “Your acceptance of my ‘Narcissism’ affected me deeply...I have a strong feeling of its serious inadequacy” (in H. Abraham and E. Freud, 1965, pp. 170-171). A recognition of the theoretical fuzziness that he had created in 1914 required Freud to embark on later revisions in his conception of the instinctual drives, and in 1923, he developed structural theory which will be discussed below.

In *Beyond the Pleasure Principle*, Freud (1920) introduced the final revision of his concept of basic human motivation. Here he introduced a new dualism of instinctual drives, a progressive Eros, the *Life Instinct* (including ego libido versus object libido); a binding force that reaches out to the world to create unities, versus an entropic, regressive, unity-destroying Thanatos (with cosmic overtones) the *Death Instinct* (including self-directed versus other-directed aggression). Now, he tried to restore a dualistic opposition between a force that was sexual, the *Life Instinct*, opposed by a force that was not sexual, the *Death Instinct*. If the Life Instinct remained strong, some of the force of the Death Instinct would be deflected away from the self toward others. The deflected force of the Death Instinct was a powerful source of aggressive behavior that could become violent and destructive (see Brown, 1959, pp. 77-86).

The Death Instinct concept gave him a new basis for explaining the existence of a regressive force in human nature, *the repetition compulsion*, a compulsion to repeat behavior patterns related to unresolved conflicts (fixations) from pregenital stages of development, and a basis for revisiting earlier traumas in dreams. Whereas Jung had argued that neurotic adults only retrospectively sexualized memories of childhood, Freud responded by asserting that neurotic adults were caught in a regressive repetition compulsion to express actual sexual and aggressive impulses from childhood which they had not brought under proper control, and which now they expressed symbolically through their compromise formation symptoms. In addition, by making the Death Instinct a source of aggression, Freud was responding to a challenge from Alfred Adler who downplayed sexuality and made an aggressive drive a primary force in human motivation. (see Stepansky, 1977, 1983).

THE RIDDLE OF HYPNOSIS

Freud’s thinking about mind-body issues in hypnosis evolved with his theorizing concerning childhood sexuality and human evolution (Silverstein & Silverstein, 1990). In his paper *Psychical (or mental) Treatment* (1890), he noted that, in the hypnotic state: “the influence

of the mind over the body is extraordinarily increased.” (p. 295). This demonstrated “an increase in the physical influence of an idea.” (p. 296).

As to why a hypnotist could exert power over a subject to accept his suggested *ideas*, as if they were his own, Freud observed “...credulity such as the subject has in relation to his hypnotist is shown only by a child towards his beloved parents, and that an attitude of similar subjection on the part of one person towards another has only one parallel, though a complete one—namely in certain love relationships where there is extreme devotion.” (p. 296).

By 1905, in *Three Essays on the Theory of Sexuality*, with his proposal that children experienced sexual desire for the parent, Freud offered an explanation for the “...credulous submissiveness shown by a hypnotized subject towards his hypnotist....the essence of hypnosis lies in an unconscious fixation of the subject’s libido to the figure of the hypnotist.” (p. 150). In this explanation, a hypnotized subject accepts suggestions from the hypnotist as if he were a loved parent. The subject transferred sexual desire for the parent toward the hypnotist and behaved in a compliant manner so as to win the that person’s love.

In *Group Psychology and the Analysis of the Ego* (1921), Freud invoked his theoretical view of human evolution (see Silverstein, 1989, 2003) to further explain the power of hypnosis. He asserted that the submissive posture adopted by a hypnotized subject was not only a re-enactment of a child’s attitude toward its parents, but also the activation of a universally inherited predisposition to re-enact a submissive stance toward the “primal father”. Previously, in *Totem and Taboo* (1913), he had proposed that the original social organization of the human species was the primal horde, groups ruthlessly dominated by one male, the “primal father.” He further reasoned that modern humans inherited characteristics that their ancestors acquired by behaving in a certain manner during the early prehistory of the species. Thus, he saw humans as born with a predisposition to re-enact a submissive stance toward the “primal father” and, therefore, become subject to accepting direct suggestions from a hypnotist. The hypnotist became, in effect, the “primal father.”

STRUCTURAL THEORY

In 1923, in the *Ego and the Id*, Freud created his final model of the mind, the structural model. He supplemented his topographic model which represented mental functioning with the spatial metaphor of levels—unconscious, preconscious and conscious—with a hypothetical set of interactive agencies: the *id* (the “It”), the *ego* (the “I”), and the *superego* (the “above I”).

Topographically, the id was pictured at the bottom and was characterized by the evolutionary lower level mental functions he previously had attributed to the unconscious. The id was the locus of wishful image object representations correlated with the satisfaction of bodily needs, generated by underlying physiological processes. The id functioned unconsciously, following the pleasure principle—the wishful image was experienced as the real object (primary process).

Topographically, the ego was pictured as developing essentially above the id; however, the ego functioned at all topographical levels, i.e., a portion of the ego immediately above the id functioned unconsciously, while above the unconscious ego there were portions of the ego functioning at the preconscious and conscious levels. The evolutionary higher-level ego utilized linguistically structured thought patterns (secondary process), and it followed the reality principle. The task of the ego was to match the images (wishes) of the id with appropriate objects in the real world, and to obtain satisfaction of bodily needs with minimum cost in terms of punishment or guilt through successful compromise formation. The superego, functioning unconsciously, consisted of moralistic demands: moral do's (an ego ideal), and moral don'ts (a conscience), internalized through identification with a parent.

Freud created the hypothetical agencies of the ego and the id to reconcile a contradiction in his topographical model. As we have seen, he had written of the conscious-preconscious system as repressing the unconscious. However, the logic of his position required that both the *repressing process* and *repressed content* had to be truly *unconscious*, but they had to be separated. He now assigned the function of repression to the ego, to that part of the ego which operated unconsciously but was still subject to secondary process rules. The content which was repressed was assigned to the lower level unconscious id which functioned according to primary process rules. Because the ego functioned partly unconsciously, partly preconsciously, and only partly consciously, the unconscious ego, unknown to consciousness, controlled access to the preconscious level, the gateway to consciousness. Thus, consciousness was shaped by unknown, unconscious ego functions.

Now that he had distinguished between the ego and the id, Freud (1923) tried to resolve questions dating back to *On Narcissism* (1914b) concerning the source of energy for each of his newly hypothesized agencies. “At the very beginning, all the libido is accumulated in the id, while the ego is still in the process of formation or is still feeble. The id sends part of this libido out into erotic object-cathexis, whereupon the ego, now grown stronger, tries to get hold of this

object-libido and to force itself on the id as a love-object.” (1923, p. 46). The ego therefore derives its energy from the id, but the ego can use this derived energy to try to control the id, even to oppose the id in the service of self-preservation. “By thus getting hold of the libido from the object-cathexis, setting itself up as sole love-object, and desexualizing or sublimating the libido of the id, the ego is working in opposition to the purposes of Eros and placing itself at the service of the opposing instinctual impulses.” (p. 46). Nevertheless, the ego must serve the id; it must use its desexualized libido to find appropriate satisfactions for the needs of the body which initially are represented psychically, symbolically as primary process within the id; “...the ego, by sublimating some of the libido for its self and its purposes, assists the id in its work of mastering the tensions.” (p. 47).

Freud’s continued reliance on energy-force concepts in his metapsychology and his continued viewing of the mind as an energy driven machine which had to direct the discharge of energy to relieve bodily tensions, forced him to wrestle with questions concerning the nature and sources of energy for his hypothetical mental structures or agencies. He continued to make pronouncements on these issues which sometimes appeared to be conflicting views [see Freud, 1923, pp. 63-66], but the statements in the paragraph above seem to be his most consistent position on the energy sources for the ego and the id.

In proposing the superego which functioned unconsciously but was not repressed nor part of the repressing ego, Freud responded to a challenge from C. G. Jung concerning the existence of archaic, archetypal, universally inherited, transpersonal structures in the unconscious. He also was responding to Jung’s denial of the actual sexual nature of the childhood Oedipus complex. He argued that the superego was the legacy of the childhood Oedipus complex, which actually was sexual, and which all humans were predisposed to experience personally through the transpersonal inheritance of acquired characteristics. (Silverstein, 1986, 1989b, 2003). The Oedipus complex was properly resolved through repression, sublimation, and identification with the same sexed parent. For Freud, the archetypal element in the development of the superego was the predisposition to repeat in one’s individual development (ontogeny) events which the human species acted out as the species developed (phylogeny). [see Silverstein, 1986, 1989b, 2003].

Freud argued that not only were humans born with predispositions to experience incestuous and parricidal impulses that reflected behavior which actually was carried out in early human primal hordes; they also were born with the predisposition to internalize taboos against

such behaviors that also were developed by our early human ancestors. But, he insisted, the internalization of such taboos was not simply the direct actualization of a phylogenetic inheritance; the internalization of taboos against incest and parricide required that, as children, individuals actually experienced forbidden sexual and aggressive impulses directed toward their parents: the Oedipus complex. Children had to properly repress and sublimate these sexual impulses and, through identification with the same sexed parent, redirect aggression away from parents toward one's self. This redirection of aggression led to the formation of the unconscious moralistic superego, the autonomous offspring of the self-observing ego. The superego directed previously parentally targeted aggression toward one's own ego, in opposition to the expression of forbidden sexual and aggressive impulses. Critical opposition from the superego caused the ego to experience a form of anxiety called guilt. Failure to resolve the Oedipus complex properly created a predisposition toward adult psychoneuroses.

In a footnote added in 1920 to *Three Essays on the Theory of Sexuality*, as part of his combat with Alfred Adler and Jung, Freud (1905b) stressed the point that the Oedipus complex represents "...the peak of infantile sexuality, which, through its after-effects, exercises a decisive influence on the sexuality of adults....the importance of the Oedipus complex has become more and more clearly evident; its recognition has become the shibboleth that distinguishes the adherents of psycho-analysis from its opponents." (p. 226n).

In 1926, in *Inhibitions, Symptoms and Anxiety*, Freud proposed the last major revision in his metapsychology. Previously, he had conceptualized anxiety as transformed undischarged sexual excitation. With his new structural model, he now was required to make the ego the seat of anxiety. He now conceptualized anxiety as a danger signal experienced by the ego. The ego could experience anxiety in relation to three types of danger: real external threat, the possibility of the failure of repression, or moral objections from the superego. The primary task of the ego was seen as mediating between the conflicting demands of reality, the id and the superego, and minimizing the experience of anxiety. The ego functioned to minimize the experience of anxiety by maximizing instinctual gratification, with the minimum cost in terms of punishment and guilt.

With structural theory, the ego controlled consciousness: if the ego did not translate a pictorial primary process thought which had sensory qualities into a secondary process linguistic form, that thought was denied access to consciousness. It was unknown, unconscious ego functioning which made repression, compromise and defense possible. Psychoneurotic

symptoms were defenses against anxiety, arising from an internal conflict among the ego, the id and the superego. Psychoneurotic symptoms were symbolic expressions of a psychical conflict between impulses in the id that originated in childhood and the controlling ego. Psychoneurotic symptoms were compromises between wish and defense.

Concerning psychoneuroses (defense neuroses), Freud (1926) now believed that: “It was anxiety which produced repression and not, as I formerly believed, repression which produced anxiety.” (pp. 108-109). Here, Freud appeared to give up his long held belief that anxiety was transformed libido which was blocked by repression, since it was anxiety as a danger signal in the ego which caused repression in the first place.

In *New Introductory Lectures on Psychoanalysis*, when considering the relationship between repression and anxiety, Freud (1933) reminded the reader of his earlier hypothesis that it was the libidinal charge (the energy) connected with the instinctual impulse that was being fought against that was transformed by repression into anxiety. “We no longer feel able to say that.” (p. 91). Now, a distinction had to be made between original repressions and later repressions. In later repression “...anxiety is awakened as a signal of an earlier situation of danger. The first and original (primal) repressions arise directly from traumatic moments, when the ego meets with an excessively great libidinal demand.” (p. 94). Later repressions construct this anxiety anew as a warning of a new upsurge of this excessively great libidinal demand.

Freud (1933) summarized his new position on anxiety by stating that he now conceptualized “...a twofold origin of anxiety—one as a direct consequence of the traumatic moment and the other as a signal threatening a repetition of such a moment.” (pp. 94-95). Now, he viewed anxiety as a warning signal within the ego over potential loss of control over drive derivative sexual impulses [the return of the repressed]; over demands from the superego; and over the anticipation of other internal or external sources of tension or pain.

THE DEFENSIVE EGO

After Freud revised his theory of anxiety in *Inhibitions, Symptoms and Anxiety* (1926), the main concern of Freudian theory shifted from a focus on the instinctual drives to a focus on the functions of the mental structures, the id, the ego, the superego, and their relations with each other. The major concern became the functions of the ego in controlling the instinctual drives and forming compromises acceptable within the moral restrictions imposed by the superego.

Ideally, the adult ego should respond to anxiety, the warning signals of danger, by adopting problem-solving methods that are congruent with reality. If the ego is overwhelmed by anxiety because of its weakness in confronting dangers from the external world, the power of unconscious instinctual impulses, or moral demands from the superego, the ego may attempt to reduce anxiety by employing tactics that deny or distort reality. The reality denying or distorting methods used by the ego to reduce anxiety were named the defense mechanisms of the ego.

Since the time of *Studies On Hysteria* (1895), the concept of the defense mechanism of repression had been the foundation-stone of Freud's clinical theory. In his metapsychological paper, *Repression* (1915b), he distinguished between primal repression and repression proper. Primal repression was the normally expected repression of sexual wishes in early childhood necessary to resolve the Oedipus complex. He stated (1915b): "We have reason to assume that there is a *primal repression*, a first phase of repression, which consists in the psychical (ideational) representative of the instinct being denied entrance into the conscious." (p. 148). Later repressions or "...*repression proper*, affects mental derivatives of the repressed representative, or such trains of thought as, originating elsewhere, have come into associative connection with it.... Repression proper, therefore, is actually an after-pressure." (p. 148).

In *Inhibitions, Symptoms and Anxiety*, Freud (1926) elaborated on the role of repression proper or secondary repression, in causing neurosis: "...most of the repressions with which we have to deal in our therapeutic work are cases of *after-pressure*. They presuppose the operation of earlier, *primal repressions*.... A symptom arises from an instinctual impulse which has been detrimentally affected by repression." (p. 94). When primal repression is successful because instinctual impulses have been sublimated, neurosis is avoided. However, in those cases in which the ego has lost control over repressed impulses, "...in which repression must be described as having to a greater or less extent failed..." neurotic symptoms appear because, in this event "...the instinctual impulse has found a substitute in spite of repression..." (p. 95). The unsuccessfully repressed instinctual impulse, over which the ego has lost influence, connects itself to other psychical processes producing psychical derivatives that take its place. These psychical derivatives may break through "...into the ego and into consciousness in the form of an unrecognizably distorted substitute..." creating a psychoneurotic symptom. (Freud, 1926-1927, p. 203).

Primal repression and the sublimation of the repressed instinctual impulses, i.e., the substituting of socially approved object-choices and behaviors for unacceptable unconscious wishes and impulses, were considered by Freud to be necessary ego defenses and, when accomplished successfully, the basis for mental health. In primal repression, early primary process wishes that produced anxiety in the ego were never translated into secondary process forms, so they never achieved consciousness. That is why, according to Freud, an adult cannot remember the pregenital wishes of childhood that were subjected to primal repression.

All ego defense mechanisms were compromises between driving and restraining forces. All ego defense mechanisms involved some degree of self-deception concerning one's true wishes and feelings. Since healthy psychosexual development required primal repression and sublimation of Oedipal and other pregenital wishes and impulses, Freud saw the self-deception inherent in these ego defenses as a prerequisite for normal development. What distinguished the healthy person from the neurotic individual was the degree of self-deception that resulted from the ego defenses employed in response to the pressure of instinctual drives. The healthy individual had established successful primal repressions and sublimations in early childhood. Hysterical patients, on the other hand, fell back on repression proper (secondary repression) in dealing with anxiety over derivatives of instinctual drives, and they represented repressed instinctual impulses symbolically through conversion into compromise formation physical symptoms. Freud's therapeutic goal was to reduce an individual's self-deception by strengthening the ego to better cope with unconscious forces; to liberate the person to put into words true feelings and desires and to work them through within the analytic relationship; to stop living in the present *as if it were the past*.

CIVILIZATION AND ITS DISCONTENTS

Freud left us with a tragic view of human nature, i.e., to be human is to be in conflict with society and within oneself. Society necessarily opposes the uncontrolled expression of the instinctual drives of the individual for the common good; however, the instinctual drives are selfish in that they press for immediate satisfaction to lower the levels of tension within the individual. The implication of this inevitable state of conflict, according to Freud, is that certain forms of compromise between desire (wish) and defense (sublimations) are the necessary basis for ordinary happiness and the avoidance of neurotic misery. For Freud, the happiness that is possible, is defined as *the avoidance of neurotic misery*. In *Civilization and its Discontents*

(1930), he offered his view that: “The programme of becoming happy which the pleasure principle imposes on us, cannot be fulfilled; yet we must not—indeed, we cannot—give up our efforts to bring it nearer to fulfillment by some means or other. Very different paths may be taken in that direction, and we may give priority either to the positive aspect of the aim, that of gaining pleasure, or to its negative one, that of avoiding unpleasure. By none of these paths can we obtain all that we desire. Happiness, in the reduced sense in which we recognize it as possible, is a problem of the economics of the individual’s libido.” (p.83).

For Freud, that’s life. That’s the way it is.

Freud freely confessed his feelings of sexual frustration and discontent with his marriage in his letters to Wilhelm Fliess. After the birth of five children in rapid succession, because he was very resistant to using available means of birth control (see McLaren, 1979), in August, 1893 Freud admitted that, to prevent more pregnancies, he and his wife were “now living in abstinence” (in Masson, 1985, p. 54). In October, 1897 at age forty-one, he confided: “Sexual excitement...is no longer of use for someone like me” (in Masson, 1985, p. 276). In March, 1900 he told Fliess: “You know how limited my pleasures are....I am done begetting children....” (Masson, 1985, p. 404). By 1908, in what might be considered autobiographical, Freud wrote “...satisfying sexual intercourse in marriage takes place only for a few years and we must subtract from this, of course, the intervals of attention necessitated by regard for the wife’s health. After these three, four or five years, the marriage becomes a failure in so far as it has promised the satisfaction of sexual needs. For all the devices hitherto invented for preventing conception impair sexual enjoyment, hurt the fine susceptibilities of both partners and eventually cause illness”. (p. 194).

As early as the 1890’s, Freud had concluded that enforced sexual abstinence in marriage produced “anxiety neurosis” and coitus interruptus to prevent pregnancy, was also likely to produce “anxiety neurosis”. He believed, for men, “this is often corrected, as it were, by normal coitus outside marriage” (Freud, 1893, in Masson, 1985, p. 183).

In 1905, Freud submitted written replies to questions on sexual morality posed by a Vienna commission of inquiry concerning possible changes in the marriage laws: his answers were made public on February 8, 1905 (see Freud’s statements in Boyer, J.W., (1978, pp. 91-93). He argued that demands for involuntary sexual abstinence were damaging, leading to “a disposition to various forms of nervousness.” (p. 93). In addition, “the existence of a marriage is

in itself no grounds for sexual obligations when the marriage no longer fulfills the task of satisfying normal sexual instincts.” (p. 93).

Considering Freud’s sexual frustration in his marriage, and his justifications for sex outside marriage when the marriage no longer fulfilled a man’s sexual needs, it is not unreasonable to believe that he may have sought sexual satisfaction in an affair with his sister-in-law Minna Bernays (see Swales, 1982, 2003). Accusations and evidence for a sexual relationship between Freud and Minna are reviewed in Silverstein (2007).

If the demands of Eros did not create enough conflict, Freud (1930) warned us about the dangers from our other side, the power of Thanatos, the Death Instinct. “The fateful question for the human species seems to me to be whether and to what extent their cultural development will succeed in mastering the disturbance of their communal life by the instinct of aggression and self-destruction.... Men have gained control over the forces of nature to such an extent that with their help they would have no difficulty in exterminating one another to the last man. They know this, and hence comes a large part of their current unrest, their unhappiness and their mood of anxiety.” (p. 145).

EPILOGUE

Psychoanalysis was not considered scientific by positivist standards for experimental science. Nevertheless, Freud confronted the dilemma inherent in the human mind taking itself as an object for observation. He stated (1940): “Every science is based on observations and experiences arrived at through the medium of our psychical apparatus. But since *our* science has as its subject that apparatus itself, the analogy ends here.” (p. 159). Even though Freud wanted psychoanalysis to be viewed as a natural science, because the mind is part of nature, he distinguished psychoanalysis from other natural sciences because its object of observation, and its instrument for observing, were one and the same (see Forrester, 1997, pp 240-248).

Freud created his metapsychology, his systematic mechanical models of the mind, based upon analogies to the physical world, in his attempt to be scientific in the broad *Naturwissenschaften* tradition within which he understood the meaning of science. He saw his metapsychology as a scientific contribution because it offered models to conceptualize the nature of unobservable, lawful, causal processes that constituted the true psychical reality.

In his clinical practice Freud depended upon his ability to interpret hidden meanings in his patients’ reported-and-unreported conscious thoughts, associations, memories and dreams.

He saw his procedures as a scientific research tool to unlock secrets of the unconscious. However, he often treated his inferences and interpretations as discovered “facts,” not meeting an accepted standard for objective scientific data. (Silverstein, 2003; Borch-Jacobson & Shamdasani, 2012). Subjective interpretations of the purpose, meaning and significance of a person’s thoughts, based upon particular hypothetical constructs concerning the basis and mechanics of mental functioning, cannot objectively be considered as proof for the validation of the truth value of the hypothetical constructs from which the interpretations were derived, even though such interpretations may have heuristic value in clinical practice, if they are properly timed and offered as suggestions for exploration (see Lear, 2005). Nevertheless, Freud believed that his “facts” supported his models of mental functioning and that his research method was comparable to the methods employed by physicists who made inferences about unobservable entities and forces, the true physical reality, based upon their empirical observations of the apparent physical world. He declared (1940): “We have discovered technical methods of filling up the gaps in the phenomena of our consciousness and we make use of these methods just as a physicist makes use of experiments. In this manner we infer a number of processes which are in themselves ‘unknowable’ and interpolate them in those that are conscious to us.” (pp. 196-197).

Even though he located some intentional agencies in his mechanical mental apparatus, Freud tried to be scientific in the *Naturwissenschaften* tradition by conceptualizing the mind as a natural machine, and by conceptualizing general laws of human mental functioning. However, in his clinical work, where understanding the hidden intentions and meanings of a particular individual were a primary concern, his attempts to be scientific shifted between conceptualizing and applying general laws of mental functioning (*Naturwissenschaft*) and making subjective interpretations of a patient’s personal intentions and meaning (*Geisteswissenschaft*). Freud saw his shifting between attempts at inferring unobservable lawful mental processes and inferring subjective personal meanings as dictated by the fact that, unlike any other phenomenon, the mind, as a natural phenomenon, could be investigated from both an objective and a subjective perspective.

REFERENCES

- Abraham, H.C. & Freud, E.L. (Eds.) (1965) *A Psycho-Analytic Dialogue: The Letters of Sigmund Freud and Karl Abraham, 1907-1926*. New York: Basic Books
- Amacher, P. (1965) *Freud's Neurological Education and Its Influence on Psychoanalytic Theory*. New York: International Universities Press
- Anderson, O. (1962). *Studies in the Prehistory of Psychoanalysis*. Stockholm: Strenska Bökforlaget
- Bernfeld, S. (1944). Freud's earliest theories and the school of Helmholtz. *The Psychoanalytic Quarterly*, 13, 341-362
- Bettelheim, B. (1983). *Freud and Man's Soul*. New York: Alfred A. Knopf
- Boehlich, W. (Ed.) (1970). *The Letters of Sigmund Freud and Edward Silberstein: 1871-1881*. Cambridge: Harvard University Press
- Borch-Jacobsen, M. & Shamdasani, S. (2012). *The Freud Files: An Inquiry into the History of Psychoanalysis*. Cambridge: Cambridge University Press
- Boyer, J.W. (1978). Freud, marriage, and late Viennese liberalism: A Commentary from 1905. *Journal of Modern History*, 50, pp. 73-102
- Brentano, F. (1874). *Psychology from an Empirical Standpoint*. London: Routledge & Kegan Paul, 1973
- Breuer, J. & Freud, S. (1895). *Studies on Hysteria*. In the Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume 2, London: The Hogarth Press, 1955

Brown, N.O. (1959). *Life Against Death: The Psychoanalytic Meaning of History*. Middletown, CT: Wesleyan University Press

Cavell, M. (1993). *The Psychoanalytic Mind: From Freud to Philosophy*. Cambridge: Harvard University Press

Cohen, A. (2002). Franz Brentano, Freud's philosophical mentor. In G. Van de Vijver and F. Geerardyn (Eds.). *The Pre-Psychoanalytic Writings of Sigmund Freud*. London: Karnac Books

Cranefield, P.F. (1966a). The philosophical and cultural interests of the Biophysics Movement of 1847. *Journal of the History of Medicine and Allied Sciences*, 21, 1-7

Cranefield, P.F. (1966b). Freud and the "School of Helmholtz." *Gesnerus*, 23, 33-39

Cranefield, P.F. (1970). Some problems in writing the history of psychoanalysis. In G. Mora & J. L. Brand (Eds.). *Psychiatry and Its History*. Springfield, IL: Charles C. Thomas, pp. 44-55

Draenos, S. (1982). *Freud's Odyssey: Psychoanalysis and the End of Metaphysics*. New Haven, CT: Yale University Press

Du Bois-Reymond, E. (1872). Über die grenzen des naturekennens. In *Reden von Emil Du Bois-Reymond, Erster Band*. Leipzig: Verlag Von Veit & Comp., 1912, pp. 441-473

Eissler, K.R. (2001). *Freud and the Seduction Theory: A Brief Love Affair*. Madison, CT: International Universities Press

Elisha, P. (2011). *The Conscious Body: A Psychoanalytic Exploration of the Body in Therapy*. Washington, DC: American Psychological Association

Ellenberger, H. (1970). *The Discovery of the Unconscious: The History and Evolution of Dynamic Psychiatry*. New York: Basic Books

Erikson, E.H. (1964). The first psychoanalyst. In E.H. Erikson. *Insight and Responsibility*. New York: Norton, pp. 19-46

Ferenczi, S. (1933). Freud's influence on medicine. In M. Balint (Ed.) *The Selected Papers of Sandor Ferenczi, M.D.*, Vol. 3. New York: Basic Books, 1955, pp. 143-155

Forrester, J. (1980). *Language and The Origins of Psychoanalysis*. New York: Columbia University Press

Freud, E.L. (Ed.). (1961). *Letters of Sigmund Freud: 1873-1939*. London: Hogarth Press

Freud, S. (1888a). Hysteria. *S.E.* 1: 39-59

Freud, S. (1888b). Gehirn [Brain]. In A. Villaret (Ed.) *Handwörterbuch der Gesamten Medizin*, Band 1. Stuttgart: Ferdinand Enke, pp. 684-697

Freud, S. (1890). Psychical (or mental) Treatment. *S.E.* 7: 280-302

Freud, S. (1891). *On Aphasia: A Critical Study*. London: Imago Publishing Co., 1953

Freud, S. (1893a). Some points for a comparative study of organic and hysterical motor paralyses. *S.E.* 1: 157-172

Freud, S. (1893b). Charchot. *S.E.* 3:9-23

Freud, S. (1894). The neuropsychoses of the defense. *S.E.* 3: 43-61

Freud, S. (1895b). Project for a scientific psychology. *S.E.* 1: 283-397

Freud, S. (1900). The Interpretation of Dreams. *S.E.* 4-5: 1-625

Freud, S. (1901). The Psychopathology of Everyday Life. *S.E.* 6

Freud, S. (1905b). Three Essays on the Theory of Sexuality. *S.E.* 7: 130-243

Freud, S. (1905c). Jokes and Their Relation to the Unconscious. *S.E.* 8

Freud, S. (1908b). 'Civilized' sexual morality and modern nervous illness. *S.E.* 9: 179-204

Freud, S. (1909). Notes upon a case of obsessional neurosis. *S.E.* 10: 153-318

Freud, S. (1910c). The psychoanalytic view of psychogenic disturbances of vision. *S.E.* 11: 211-218

Freud, S. (1911). Formulations on the two principles of mental functioning. *S.E.* 12: 215-226

Freud, S. (1913). Totem and Taboo. *S.E.* 13: 1-161

Freud, S. (1914b). On narcissism: an introduction. *S.E.* 14: 67-102

Freud, S. (1915a). Instincts and their vicissitudes. *S.E.* 14: 111-140

Freud, S. (1915b). Repression. *S.E.* 14: 143-158

Freud, S. (1915c). The unconscious. *S.E.* 14: 161-215

Freud, S. (1916-1917). Introductory Lectures on Psychoanalysis. *S.E.* 15-16: 9-496

Freud, S. (1920). Beyond the Pleasure Principle. *S.E.* 18: 3-143

Freud, S. (1921). Group Psychology and The Analysis of The Ego. *S.E.* 18: 67-143

Freud, S. (1923). The Ego and the Id. *S.E.* 19: 3-66

Freud, S. (1926). Inhibitions, Symptoms, and Anxiety. *S.E.* 20: 77-174

Freud, S. (1926-1927). The Question of Lay Analysis. *S.E.* 22: 179-258

Freud, S. (1930). Civilization and Its Discontents. *S.E.* 21: 59-154

Freud, S. (1933). New Introductory Lectures on Psychoanalysis. *S.E.* 22: 3-182

Freud, S. (1940). An Outline of Psychoanalysis. *S.E.* 23: 141-207

Fullinwider, S.P. (1983). Sigmund Freud, John Hughlings Jackson, and speech. *Journal of the History of Ideas*, 64, 151-158

Gill, M.M. & Holzman, P.S. (Eds.) (1976). *Psychology Versus Metapsychology*. New York: International University Press

Goldstein, R.G. (1995). The higher and lower in mental life: an essay on J. Hughlings Jackson and Freud. *Journal of the American Psychoanalytic Association*, 43, 495-515

Gregory, F. (1977). *Scientific Materialism in Nineteenth Century Germany*. Dordrecht, Holland: D. Reidel Publishing Company

Harrington, A. (1987). *Medicine, Mind, and the Double Brain*. Princeton, NJ: Princeton University Press

Holt, R. (1989). *Freud Reappraised*. New York: Guilford.

Hughes, J.M. (1994). *From Freud's Consulting Room: The Unconsciousness in a Scientific Age*. Cambridge, MA: Harvard University Press

Hughlings, Jackson, J. (1875). On the anatomical and physiological localization of movements in the brain. In J. Taylor (Ed.). *Selected Writings of John Hughlings Jackson*, Vol. 1. New York: Basic Books, 1958, pp. 37-76

Hughlings Jackson, J. (1881). Remarks on dissolution of the nervous system as exemplified by certain post-epileptic conditions. In J. Taylor (Ed.). *Selected Writings of John Hughlings Jackson*, Vol. 2. New York: Basic Books, 1958, pp. 412-457

Hughlings Jackson, J. (1887). Remarks on evolution and dissolution of the nervous system. In J. Taylor (Ed.). *Selected Writings of John Hughlings Jackson*, Vol. 2. New York: Basic Books, 1958. pp. 76-118

Hughlings Jackson, J. (1890). On convulsive seizures. In J. Taylor (Ed.). *Selected Writings of John Hughlings Jackson*, Vol. 1. New York: Basic Books, 1958, pp. 412-457

Jones, E. (1953). *The Life and Work of Sigmund Freud*, Vol. 1. New York: Basic Books

Kanzer, M. (1973). Two prevalent misconceptions about Freud's "Project" (1895). *Annual of Psychoanalysis*. Vol. 1. New York: Quadrangle, pp. 88-103

Klein, D.B. (1970). *A History of Scientific Psychology*. New York: Basic Books

Klein, G.S. (1973). Two theories or one? *Bulletin of the Menninger Clinic*, 37 pp. 102-132

Lear, J. (2005). *Freud*, 2nd ed. London: Routledge

Levin, K. (1978). *Freud's Early Psychology of the Neuroses*. Pittsburgh, PA: University of Pittsburgh Press

Makari, G. (2008). *Revolution in Mind: The Creation of Psychoanalysis*. New York: Harper Collins

Masson, J.F. (Ed.). (1985). *The Complete Letters of Sigmund Freud to Wilhelm Fliess: 1887-1904*. Cambridge, MA: Harvard University Press

May, U. (1999). Freud's early clinical theory (1894-1896): outline and context. *International Journal of Psychoanalysis*, 80, pp. 769-781

McCleod, M. (1992). The evolution of Freud's theory about dreaming. *Psychoanalytic Quarterly*, 61, pp. 37-64

McGrath, W. (1986). *Freud's Discovery of Psychoanalysis: The Politics of Hysteria*. Ithaca, NY: Cornell University Press

McGuire, W. (Ed.). (1974). *The Freud/Jung Letters: The Correspondence Between Sigmund Freud and C.G. Jung*. Princeton, NJ: Princeton University Press

McLaren, A. (1979). Contraception and its discontents: Sigmund Freud and birth control. *Journal of Social History*, 12, pp. 513-529.

Meissner, W.W. (2003). Mind, brain and self in psychoanalysis: II: Freud and the mind-body relationship. *Psychoanalysis and Contemporary Thought*, 26, pp. 321-344

Merlan, P. (1949). Brentano and Freud—a sequel. *Journal of the History of Ideas*, 10, p. 451

Meynert, T. (1885). *Psychiatry*. New York: Hafner, 1968

Nunberg, H. & Federn, E. (Eds.). (1975). *Minutes of the Vienna Psychoanalytic Society*. Vol. 4. New York: International Universities Press

Oring, E. (1984). *The Jokes of Sigmund Freud*. Philadelphia, PA: University of Pennsylvania Press

Parisi, T. (1987). Why Freud failed: some implications for neurophysiology and sociobiology. *American Psychologist*, 42, pp. 235-245

Phillips, A. (2014). *Becoming Freud: The Making of a Psychoanalyst*. New Haven, CT: Yale University Press

Rychlak, J. (1981). Freud's confrontation with the telic mind. *Journal of the History of the Behavioral Sciences*, 17, pp. 176-183

Sand, R. (1988). Early nineteenth century anticipation of Freudian theory. *The International Review of Psychoanalysis*, 15, pp. 465-479

Silverstein, B. (1985). Freud's psychology and its organic foundation: sexuality and mind-body interactionism. *The Psychoanalytic Review*, 72, pp. 203-228

Silverstein, B. (1986). "Now comes a sad story": Freud's lost metapsychological papers. In P.E. Stepansky (Ed.). *Freud: Appraisals and Reappraisals: Contributions to Freud Studies*, Vol. 1. Hillsdale, NJ: The Analytic Press, pp. 143-195

Silverstein, B. (1988). Will the real Freud stand up, please? *American Psychologist*, 43, pp. 662-663

Silverstein, B. (1989a). Freud's dualistic mind-body interactionism: Implications for the development of his psychology. *Psychological Reports*, 64, pp. 1091-1097

Silverstein, B. (1989b). Oedipal politics and scientific creativity: Freud's phylogenetic fantasy. *The Psychoanalytic Review*, 76, pp. 403-424

Silverstein, B. (1997). A follow-up note on Freud's mind-body dualism: what Ferenczi learned from Freud. *Psychological Reports*, 80, pp. 369-370

Silverstein, B. (2002). Psychoanalysis: origins and history. In E. Erwin (Ed.). *The Freud Encyclopedia*, New York: Routledge, pp. 435-444

Silverstein, B. (2003). *What was Freud Thinking? A Short Historical Introduction to Freud's Theories and Therapies*. Dubuque, IA: Kendall/Hunt

Silverstein, B. (2007). What happens in Maloja stays in Maloja: inference and evidence in the "Minna Wars." *American Imago*, 64, pp. 283-289

Silverstein, S.M. & Silverstein, B.R. (1990). Freud and hypnosis: the development of an interactionist perspective. *The Annual of Psychoanalysis*. Vol. 18. Hillsdale, NJ: The Analytic Press, pp. 175-194

Solms, M. (2002). An introduction to the neuroscientific works of Sigmund Freud. In G. Van De Vijver & F. Geerardyn. (Eds.). *The Pre-Psychoanalytic Writings of Sigmund Freud*. London: Karnac Books, pp. 17-35

Solms, M. & Saling, M. (1986). On psychoanalysis and neuroscience: Freud's attitude to the localizationist tradition. *International Journal of Psychoanalysis*, 67, pp. 397-416

Solms, M. & Saling, M. (1990). *A Moment of Transition: Two Neuroscientific Articles by Sigmund Freud*. London: Karnac Books

Stepansky, P.E. (1977). *A History of Aggression in Freud*. New York: International Universities Press

Stepansky, P.E. (1983). *In Freud's Shadow: Adler in Context*. Hillsdale, NJ: The Analytic Press

Stewart, W.A. (1967). *Psychoanalysis: The First Ten Years, 1888-1898*. New York: Macmillan

Sugarman, S. (2016). *What Freud Really Meant: A Chronological Reconstruction of his Theory of the Mind*. Cambridge: Cambridge University Press

Swales, P.J. (1982). Freud, Minna Bernays and the conquest of Rome; new light on the origins of psychoanalysis. *New American Review*, 1, pp. 1-23

Swales, P.J. (2003). Freud, death and sexual pleasures: on the psychical mechanism of Dr. Sigm. Freud. *Arc de Cercle: An International Journal of the History of the Mind Sciences*, 1, pp. 5-74

Tauber, A. I. (2010). *Freud: The Reluctant Philosopher*. Princeton, NJ: Princeton University Press

Whitebook, J. (2017). *Freud: An Intellectual Biography*. Cambridge: Cambridge University Press

Zentner, M.R. (2017). Nineteenth-century precursors of Freud. In E. Erwin (Ed.). *The Freud Encyclopedia*. New York: Routledge, pp. 370-383