CONCEPTUAL FOUNDATIONS OF PSYCHOLOGY
Chapter 6.1 The roots of psychoanalysis

It is impossible to produce a reasonable account of Freud’s contribution to psychoanalysis without a fairly detailed discussion of the scientific and social context in which this development took place. Without such a background, much of what we learn in the usual textbooks on the subject is not only boring but seemingly irrelevant to modern neuroscience and medicine. Concepts like the ego, superego and id are now so well entrenched in popular culture that standing alone, they appear trite (overused and therefore dull), stripped of any genuine interest. In addition, hysterical disorders of the nervous system are of much less interest to medical practitioners today than they were in 1885, the year Freud arrived in Paris at the age of 29 to study under the great French neurologist Charcot. At that time, Freud was a struggling Viennese physician who had been awarded a travel grant ostensibly to study neuropathology in children. His real plan, Freud confided to his fiancée Martha Bernays, was to make a name for himself as a specialist in nervous disorders.
Ideas and the nervous system

Throughout this text, we have seen different accounts of the relationship between physical events in the brain and mental events like thoughts and feelings. In the 19th century, the dominant view was expressed in the diagrams of language produced by Wernicke and other European neurologists. According to this view, ideas were based on associations between sensory and motor events in the brain. The meaning of a word was established by linking the sound of the word to a particular pattern of sensory-motor representations. For example, Wernicke asked how we comprehend the word *bell*. He wrote:

*If we are to comprehend this word, the concept of a bell must be aroused within us by the telegram which has reached center A. The acoustic message must stimulate the memory images of a bell which are deposited in the cortex and located according to the sensory organs. These would include the acoustic imagery aroused by the sound of the bell, visual imagery established by means of form and color, tactile imagery acquired by cutaneous sensation, and finally, motor imagery gained by exploratory movements of the fingers and eyes. Close association between various memory images has been established by repeated experience of the essential features of bells. As a final result, arousal of each individual image is adequate for awakening the concept as a whole. In this way a functional unit is achieved. Such units form the concept of the object, in this case a bell. Thus, when a spoken word is understood and provokes thought, these units are in a sense a second station, assessable to our own recognition, in the total activity of the hemispheres, a station which must be passed through if the spoken word is not to die away in our ears without having been understood. Moreover our consciousness makes use of this same station when the word “bell” is to be articulated spontaneously, i.e. as the result of what may be highly complex processes within our consciousness.*

This passage neatly captures the views expressed by leading 19th century neuroscientists on the relationship between language, ideas and consciousness that the young Freud was exposed to as a student. We outlined this framework in Case Study 10 (which you might wish to review if necessary). The metaphor that Wernicke was explicitly relying on, viewed the brain as a gigantic series of switches akin to a telegraph system. Language connected with ideas almost in a reflexive fashion. To hear a word was to immediately and automatically connect the sound with stored sensory and motor representations (Wernicke used the term “images” to mean something like “stored impressions”) which themselves were based on experience. To understand a word like *bell* was simply to retrieve a bundle of stored associated memories that were registered during repeated experiences with the object (*Close association between various memory images has been established by repeated experience of the essential features of bells*). Thinking of one attribute of the object immediately gives rise to the integrated con-
cept; the sound of a bell evokes all the other experiences we have stored with the object, such as its shape, the movements we made when touching it, and so on. To be conscious of an idea and to produce the word associated with it, we simply to activate the impressions we have stored in sensory-motor regions of the brain. These impressions, acting together as a functional unit, then communicate their collective activation to the speech centers. Of course, the details of how we convert thoughts into voluntary speech acts were not well understood, as Wernicke acknowledged. The paragraph concludes that the process of conscious language production occurred as a result of highly complex processes, too complex presumably, to be fully captured in a simple wiring diagram of the cortex.

**Freud's criticisms of the Wernicke-Lichtheim diagram**

It will come as a surprise to you to learn that the first monograph written by Freud in 1891 (at the age of 35) was not a discussion of neurosis or hysteria but a critique of the Wernicke-Lichtheim model of language. The book can be seen as a stepping-stone in the complex journey that Freud undertook as a physician who grappled with questions of the relationship between the mind and physical illness. In essence, the key question that occupied Freud as a young doctor and many of the neurologists who mentored him was: *How is it possible that thoughts can make you sick?*

The question is as important today as it was in Freud’s era but it has lost some of its force as modern medicine has moved increasingly towards a view of the body as the object of treatment, and away from the effects of patients’ mental health on their physical welfare. We know of course, that psychological stress is a huge factor in many diseases of the modern world, including coronary artery disease, sleep disorders, digestive problems and the like. But with so many drugs on the market, and a vast pharmaceutical industry, the dominant approach by physicians is to quickly medicate the symptoms. There is no time and little incentive in our modern world to deal with the complexities of mental life in relation to physical health.

In Freud’s world, the attitude and role of physicians were very different. There was nothing like the arsenal of drugs now available to modern medicine so the emphasis was more on understanding diseases than restoring the health of the patient. This constraint generated scientific advances but often without improving the situation of those in need of medical care. At the same time, the boundaries between the mental and physical determinants of health were less sharply drawn than they are today. The cultural and medical environment in which Freud as a student was immersed, provoked questions about the mind and its role in disease that fueled his young ambitions. Giddy with excitement at winning a travel grant to study with the great Charcot, Freud wrote to his fiancée Martha Bernays that he would go to Paris, ‘become a great scholar and then come back to Vienna with a huge, enormous halo, and ......cure all the incurable nervous cases’.

Charcot was appointed head physician at La Salpêtrière in 1862, a complex of buildings housing 5000 women, many
of whom were deemed insane, demented or otherwise beyond help. He carried out pioneering work on the diagnosis of amyotrophic lateral sclerosis, multiple sclerosis, and made important contributions to the understanding of rheumatism, gout, arthritis and locator ataxia. Aside from the need to understand the variety of diseases afflicting these women, however, there was little treatment available to ease their suffering.

Amongst the patients in La Salpêtrière, Charcot observed nervous disorders which clearly involved no lesions to the brain or spinal cord. These were difficult to classify or understand as symptom-complexes, and included many cases of impaired functioning (blindness, for example, or paralysis) that seemed to have no physical cause. For example, Pierre Marie who was acting as Charcot’s assistant at the time, documented the following remarkable event in the hospital. The administration needed to repair a wing of the building and so moved a large number of epileptic cases into a ward that housed women who were all mentally ill. These women very soon started having “seizures”, leaving the doctors with the difficulty of having to distinguish between patients with epilepsy and those who were exhibiting the same or very similar symptoms, though from causes that were apparently psychological rather than physical.

The existence of hysteria and the neuroses raises questions that lay at the heart of Freud’s dissatisfaction with Wernicke’s approach to the cortical representation of language and ideas. How can a simple diagram based on the analogy between language and a telegraph system that shunts messages from one center to another, explain the apparent fact that ideas and words can disrupt a patient’s conscious mental life, and in the extreme, leave him or her incapacitated by seizures, paralysis and other physical ailments?

Freud’s critique, unlike the later attacks on the digram-makers by Pierre Marie and Sir Henry Head (see pages 34-37) involved a sophisticated analysis of language itself. What purpose does language serve and how is it that words or ideas have the power to exert such potent effects on the body? Freud based his views on the writings of Hughlings Jackson, an English neurologist who between 1864 and 1893 formulated a comprehensive alternative to localizationist doctrines of speech and language. Jackson did not believe that it was possible to reduce the complexities of language to brain circuitry. Of course, language was produced by physical events in the brain, but, according to Jackson’s viewpoint, we needed both psychological and neurological constructs to understand the ability to convert thoughts into words.

For Jackson, the unit of language was not the word (as assumed by Wernicke) but what he referred to as a proposition. This term is typically used to denote a declarative statement that can be seen as either true or false; for example, the proposition *It is sunny today* can be verified by checking the state of the weather. Jackson was implying that even a single word uttered by someone (e.g. *chocolate*) inherently has propositional content. When we say, *chocolate*, we are actually saying something like: *I am seeing a piece of chocolate*, or *That is a picture of a piece of chocolate*, or if you are a small child who is limited
to one word statements or a patient with an acquired language disorder, the word *chocolate* could mean, depending on the context, *I want a piece of chocolate*.

In addition to propositional or *intellectually driven language*, Jackson argued that words could be driven by *emotional states* that had a very different representation. The distinction between emotional and propositional language was based on Jackson’s view of the overall organization of the nervous system. Drawing on evolutionary biology, he thought of the brain as a hierarchy of structures. The subcortical brain was the most ancient from a phylogenetic standpoint (*phylogeny refers to the evolutionary development and diversification of a species or group of organisms*) and was characterized by Jackson as having rigidly organized unconscious reflexes that were determined by biological needs. Certain mental states could trigger these primitive *lower-level structures* which could then make contact with the language apparatus to produce words having emotional (and not propositional) content. The result might be a curse, or a phrase with special emotional significance.

At a higher level are cortical structures that are (a) phylogenetically younger, (b) more flexible in their organization and (c) generate volitional behavior. Language with propositional content is produced by conscious mechanisms that depended on the highest cortical structures. Jackson argued that the cortex and sub-cortex were richly interconnected so that their functional abilities blended seamlessly to determine our mental world.

Freud adopted Jackson’s ideas to produce a formidable attack on the claim that there were language centers organized in the manner conceived by Wernicke. In this critique were buried some of the origins of Freud’s ideas on psychopathology. Consider the following passage from the text, acknowledging the influence of Hughlings Jackson.

*This author* -- Freud is referring to Jackson-- *on whose views I have based almost all the arguments which I have advanced in refuting the localizationist theory of the aphasias, discussed the not unusual case of the motor aphasic who, apart from ‘yes’ or ‘no’, has retained a residue of speech which otherwise would represent a complex activity of language. This residue frequently consists of a vigorous curse (sacré nom de dieu, Goddam, etc.); Hughlings Jackson points out that even in normal persons such an utterance belongs to the emotional and not to the intellectual language. In other cases, however, this recurrent utterance is not a curse but a phrase of special significance…Some of these cases…permitted a very plausible interpretation. For instance, a man who could say only ‘I want protection’, owed his aphasia to a fight in which he had been knocked unconscious by a blow on the head. Another patient had the curious speech remnant: ‘List complete’: he was a clerk who had a stroke immediately after he had laboriously completed a catalogue.*

We can see in this quote that Freud considered certain forms of language to be guided, not by our intellect but by more primitive emotional forces. A recurring phrase like *I want protection* remained all that was left to a Broca’s (i.e. motor) aphasic because the words together captured the patient’s extreme emotional state just before a traumatic head injury. If stereotyped utterances observed in some patients
with neurological damage reflected the hidden content of their inner world, then perhaps a careful analysis of *other forms of aberrant speech* might yield additional insights into the psychological forces acting on our minds. For example, fatigue, inattention, or emotional distress might induce a brief functional change to the language system that causes us to mis-speak or produce some other slip of the tongue. An astute observer might analyze these speech errors for clues on mental states that typically remain hidden from view.

Freud used the term *paraphasia* to refer to unintended speech errors. He wrote:

> At this stage we only want to mention that the paraphasia observed in aphasic patients does not differ from the incorrect use and distortion of words which the healthy person can observe in himself in states of fatigue or divided attention or under the influence of disturbing affects (note: affect in this context means emotion), - the kind of thing that frequently happens to our lecturers and causes the listener painful embarrassment.

A paraphasia seen in this light might provide a window on aspects of the mind that are not part of voluntary speech acts. Freud was in effect saying that under certain conditions, we unintentionally communicate mental states which we either just dimly perceive or which lie completely beyond conscious awareness. But what then are these states and how do they influence our mental and physical world?
Before working with Charcot in Paris, Freud’s training as a medical student included exposure to the ideas of three world renowned brain researchers: Ernst Brücke, Sigmund Exner and Theodor Meynert. Each of these influential neuroscientists shared a common view on the neural mechanisms underlying mental events. All shared the prevailing emphasis that nervous functioning, including the function of the brain, could be reduced to reflexive internal processes. Brücke (and his assistant Exner) argued that incoming neural excitation traveled along sensory nerves and was discharged by the motor system. Mental events were the result of these reflexive neural pathways and could never themselves be the direct cause of behavior. This view had no room for human agency or free will.

Meynert’s theoretical framework was a little more complex but nonetheless reduced all mental processes to the action of reflexive neural events. The brain, according to Meynert, was divided into higher and lower cortical functions (a two-tiered system). Subcortical regions held innately determined, automatic reflexes which were controlled and inhibited by learned associations developing in higher cortical regions. Consider a child,
guided by sensory-motor reflexes, stretching out his hand to
touch a bright flame. The outcome is an immediate unpleasant
sensation (a burn). At the same time, additional innately
determined reflexes work to automatically snatch the hand
away. Because reaching towards an open flame results in the
perception of a harmful outcome, a new circuit is established
in the cortex. The function of this newly acquired cortical
circuit is to suppress or inhibit the reflexive movement of the
hand towards a flame (compare Meynert’s description with
Descartes’ on page 10 as a useful exercise).

Of course, there is nothing in Meynert’s account de-
scribed so far that explains the feeling we all have that we are
not just bundles of reflexive associations but embodied agents
with complex mental lives. According to Meynert, the sense
that we are physical and mental selves occurs because our per-
ceptions and associations are directed by something he called
the “Will-impulse” guiding us in the search for pleasurable
outcomes and the avoidance of painful experiences. Meynert made use of the term primal ego (which Freud later
adapted in constructing his own psychological theories) to refer to the collection of pleasurable physical sensations that we
quickly learn and seek to preserve as infants. A secondary ego
determined by higher-level associations later develops which can fall
into conflict with the instinctive urges of the primal ego.

Clearly, some of Freud’s thinking on the nature of internal
conflict can be linked to Meynert’s account. In particular, Freud also relied on the distinction between a primitive self guided by a search for pleasure and the avoidance of un-
pleasant events, and a more mature psychological entity that
serves to balance these biological needs with the demands of
reality. It is important to understand, however, that there is a crucial difference between Meynert’s account and the psychological theory of conflict later developed by Freud.

Meynert was determined to explain behavior solely in
terms of brain mechanisms. Ideas and other mental states
were themselves stripped of the ability to directly influence
our behavior. As George Makari writes in a recent book (Rev-
lution in Mind: the Creation of Psychoanalysis), this was a theory
that reduced the mind to dueling reflexes. William James re-
jected Meynert’s account, urging his readers to think in terms
of psychological rather than neuroanatomical constructs.
‘We thus get whatever psychological truth the Meynert scheme possesses
without entangling ourselves in a dubious anatomy and physiology’.

Freud, as he developed intellectually and grew apart from his
teachers, came to agree with the view expressed by James. In
Freud’s landmark work on the interpretation of dreams, we
see clearly expressed his rejection of the notion that psychological
constructs must be grounded in neuroanatomical structures.

I shall entirely disregard the fact that the mental apparatus with
which we are here concerned is also known to us in the form of anatomical
preparation, and I shall carefully avoid the temptation to determine psychical locality in any anatomical fashion. I shall remain upon psy-
chological ground.

Be sure that you understand the correspondence be-
tween James’ way of thinking about the mind and the above
sentence taken from the *Interpretation of Dreams*. Freud’s use of the term *psychical locality* referred to the undeniable fact that the scene of action in which the dream unfolds -- or if you like, borrowing a term we used in Chapter 1, the *Cartesian theater in which the dream unfolds* -- is quite different from the mental events we experience during conscious waking life. Do we need to think about the difference between these two kinds of mental events (dreams versus wakeful experience) by linking them to systems localized in different regions of the brain? Freud explicitly dismissed this limited way of thinking, and instead used the term *locality in the mind* as analogous to the ‘location’ of an image inside a photographic device. As he put it:

*I propose simply to follow the suggestion that we should picture the instrument which carries out our mental functions as resembling a compound microscope or a photographic apparatus, or something of the kind. On that basis, psychical locality will correspond to a point inside the apparatus at which one of the preliminary stages of an image comes into being. In the microscope and telescope, as we know, these occur in part at ideal points, regions in which no tangible component of the apparatus is situated. I see no necessity to apologize for the imperfections of this or of any similar imagery.*

The emergence of an idea, whether in dream or a waking state, is like the emergence of an image generated by the physical action of some optical device. Just as there is no tangible part of the device where the image resides, so there is no way to localize a thought in a particular set of neuroanatomical structures. The remainder of this chapter traces the intellectual path that Freud pursued after rejecting the view that the organization of mental structures must be linked to underlying neuroanatomy. The new approach he developed led to the birth of psychoanalysis.

### Hysterical paralysis

On returning to Vienna after his internship with Charcot, Freud encountered patients who manifested a bewildering array of psychosomatic ailments. Their symptoms raised questions that continue to challenge modern neurologists and psychiatrists. Under what circumstances can thoughts make us ill? As Freud noted, ‘*Charcot was the first to teach us that to explain the hysterical neuroses we must appeal to psychology*.’ This comment that psychology is needed to understand the physical symptoms of hysteria applies equally to many other medical disorders commonly seen today. They raise questions about the boundary between physical and mental illnesses that are not restricted to Freud’s era, despite the eventual waning of interest in hysteria as a clinical problem. A host of other psychological phenomena -- *many linked to stress* -- have been identified that clearly have a serious impact on physical health (for example, post-traumatic stress disorder, the effect of continuous stress on high blood pressure, on the digestive system, or on sleep, etc).

Charcot did indeed emphasize an *abnormal response to stress* (physical and/or mental) as part of his explanation for hysteria. For example, the doctors at La Salpêtrière were fascinated by the remarkable case of two French laborers, nicknamed Pin and Porez, who presented with paralyses that
were clearly not due to any obvious anatomical cause. Each patient had suffered an accidental blow to a limb, but the trauma was minor and could not have resulted in permanent nerve damage.

Charcot’s explanation for the paralysis affecting these two men was as follows: The shock of the initial trauma induced the panicky thought in each man ‘I can’t move my arm.’ Principles of association would normally yield other reassuring thoughts that counteracted this initial thought, including the intention to move the limb to check that it is not impaired. But the traumatic experience of the injury in these patients left them with the idea -- I am unable to move my limb -- that acted like a self-induced hypnotic command. Their traumatized minds literally allowed an idea to peel off from the matrix of conscious associations that normally guide our behavior. Once ‘dissociated’ from this stable matrix, the thought exerted an influence on the body that was no longer under conscious control. The patients were left in a kind of auto-induced hypnotic state that was the cause of their paralysis.

If an idea could induce a paralysis, then might it be possible to improve the condition of the patient by communicating other ideas as an antidote? Charcot commented:

In the first place we acted, and continue to act every day on their minds as much as possible, affirming in a positive manner a fact of which we are ourselves perfectly convinced -- that their paralysis, in spite of its long duration, is not incurable, and that, on the contrary, it will certainly be cured by means of appropriate treatment… if they will be so good as to aid us.

The remedy against the pernicious (i.e. harmful) effects of unconscious ideas responsible for hysterical paralysis (and other psychosomatic disorders) was the expression of conscious ideas as a counteracting influence. Could this form of cognitive (or ‘talking’) therapy provide a complete cure for Pin and Porez, or other such patients? According to Charcot, the answer was no. Traumatic neurosis, he believed, affected individuals because their nervous systems were genetically prone to the kind of fractured thought processes that was responsible for the disorder. By ‘fractured’, I mean the harmful splitting away of an idea from conscious awareness, resulting in unconscious mental processes which potentially exerts an adverse effect on behavior.

The tendency to develop neuroses ran in families, Charcot strongly believed, and he used the term ‘neuropathic fam-
cide, progressive paralysis, rheumatism and arthritic disorders. When challenged to explain how such different ailments could be linked together by heredity, Charcot pointed to “Israelites” (Jews) in Europe who ‘by jealously guarding the purity of their race’ were particularly susceptible, he believed, to constellations of diseases that ran in families. The figure on the previous page represents Charcot’s attempt to arrive at a common cause in a Jewish ‘neuropathic family’ for diseases as varied as mental illness, dementia, gout, tabes dorsalis (an impairment of the central nervous system due to syphilis), Sydenham’s chorea and diabetes.

The reliance on vaguely defined heredity disorders as responsible for psychopathology and a host of other disorders was a popular way of thinking in the 19th century. Even the young Freud, succumbing to common medical (and societal) prejudices of the time, came to believe that his family was neuropathic (his uncle’s family included a child who was intellectually handicapped and two others who were judged insane). As he resignedly informed his fiancée, Martha, ‘these stories are very common in Jewish families’.

It was the inclusion of tabes dorsalis in the list of so-called familial clusters that, curiously enough, proved the undoing of Charcot’s claim that hysteria was the result of an inherent weakness in the ability to cope with traumatic experience. Tabes dorsalis, also known as syphilitic myelopathy, is a slow degeneration of nerves in the spinal cord that convey information about the position of our limbs. By the 1880’s evidence had begun accumulate that linked tabes dorsalis to a bacterial infection that some believed was also responsible for numerous cases of paralytic dementia seen in medical asylums (this also turned out to be the case). By 1891, researchers had shown that over 90% of patients with tabes dorsalis had been infected with syphilis. Given that Charcot was proved wrong about syphilis, doubt also set in regarding his claim that heredity weakness was responsible for hysterical paralysis and other forms of psychosomatic disorders.

Studies on Hysteria

After returning home from Paris, Freud developed a professional association with Josef Breuer, one of the most widely consulted and respected physicians in Vienna. Freud was often a guest at Breuer’s home, and during one of his visits was told the story of one of Breuer’s patients, Bertha Pappenheim, whose case study became so famous that she was referred to in the literature as Anna O.

Bertha's father became ill in the summer of 1880, and shortly thereafter she presented with a number of bizarre symptoms. For example, she developed hallucinations of snakes, she could move her arm only to the right and see only parts of a face. She periodically became deaf. She was unable to speak in her mother tongue, though she communicated freely in English.

Breuer was called in as Bertha's physician. He found that simply allowing the patient to talk about her inner fantasies helped relieve (though not cure) her symptoms. It was Bertha herself who coined the term “talking cure”, when referring to the beneficial effects of discussing her inner mental
life with Breuer. He concluded that the patient’s own use of narrative and self-examination was responsible for bringing her some relief. If you re-examine the section describing Charcot’s attempt to treat Pin and Porez, you will note that he relied on constant verbal suggestions to them that they were indeed capable of moving their injured limbs, reassuring them that they did not suffer from paralysis. This form of therapy was very different from the one that gave relief to Anna O. As Breuer observed, it was her own self-analysis and recollection that produced some relief. For example, at one point Bertha found herself revolted at the thought of drinking water, and was forced to obtain liquid from fruits. During therapy she recalled witnessing a dog drinking from a glass, a sight that disgusted her. The recollection of this event immediately removed Bertha’s aversion to water.

Unfortunately, this form of talking cure proved to be of only temporary benefit to the patient. Bertha was admitted to an asylum in the summer of 1882, at which point she was addicted to morphine. Breuer vowed never to himself treat such cases of hysteria again and referred all such patients to his younger colleague and protégé, Sigmund Freud.

The two began collaborating on a new approach to hysteria that replaced the idea of counter-suggestion (defended by Charcot) with a division of mental life into expectations and intentions. Normally, we link an expectation to an intention. If I intend to nurse my child, for example, I naturally expect the motor intention to succeed. But suppose I give rise to an unconscious neurotic thought ‘I will fail at nursing my child’ which becomes dissociated from the conscious intention to nurture my child. This thought under certain circumstances may act as a hidden counterforce to my conscious intentions, preventing me from carrying them out. Bringing the thought back into the spotlight of conscious awareness returns it to the normal network of associations, whereupon it loses its harmful influence on behavior.

In 1892, Freud and Breuer published their collaborative work on hysteria. They confirmed Charcot’s view that ideas could result in hysterical symptoms, and that trauma may be responsible for the splitting away of ideas from conscious experience. Additionally, though, they introduced further theoretical refinements; both rejected Charcot’s presupposition that hysteria and other forms of psychopathology were the results of hereditary defects. Freud argued that psychological conflict alone, coupled with the inadvertent suppression of disturbing thoughts was sufficient to generate the symptoms of hysteria. Breuer also claimed that the recollection of dissociated ideas could bring some relief to the patient. ‘Hysteric’, they both argued, ‘suffered mainly from (….unconscious…) reminiscences.’ In other words, certain memories become separated (dissociated) from the matrix of normal conscious associations,
and then these dissociated memories function like autonomous (independent) agents to disrupt our inner mental life. Bringing these memories back to conscious awareness provides relief, a phenomenon the authors described as *catharsis*.

**Dream Worlds**

How can we obtain a better understanding of the unconscious forces that influence our conscious mental lives? Freud considered that the answer lay in the hallucinatory experience of dreams, which he argued were very similar to the states experienced by patients under hypnosis. In these hypnagogic states, what people experienced afforded clues on the nature of dissociated events hidden from consciousness. Prior to Freud’s interpretation, dreams were considered to be confused responses of the sleeping brain to *external physical events*. For example, Wundt argued that in sleep we may perceive the sound of the wind blowing in the chimney as the howling of wolves. Dreams, on this view, were a kind of illusion obeying the same rules of association that govern our conscious perception of the world.

Freud proposed instead that the mental world of dreams was determined by lawful principles that were quite distinct from those applicable to our conscious perceptions. To uncover these hidden principles, he developed a particular method; patients would lie down on Freud’s beautiful couch, close their eyes to shut out external stimulation, and were asked instead to concentrate on their thoughts and feelings. If the patient recounted any dreams, Freud analyzed their content. His approach treated each dream as a kind of *hysterical fantasy*; the goal of analysis was to reconstruct the missing association between the fragmented contents of a dream so as to reveal the dynamic internal forces that produced the experience. The emphasis on ‘internal’ should alert you to the difference between Freud’s view on the nature of dreams and those of his colleagues who assumed that dreams were simply the brain’s response to external sensory events when asleep. Freud’s interpretation rested on the assumption that the forces unleashed during sleep were *internally generated*. The content of a dream expressed hidden ideas that were distinct from the associations governing our normal waking experience, in exactly the same way that unconscious ideas acted on the behavior and reflections of individuals who suffered from hysteria.

Dreams in fact concealed hidden wishes that could not make their presence known directly. The mind, as Freud put it, was like a ‘political writer who has disagreeable truths to tell those in authority’ and so produces them in a disguised form so as to evade a censor. People remembered the inoffensive *manifest content* of the dream, which often involved a trivial or seemingly absurd fantasy. But these fragments, like pieces of a manuscript, contained information about the latent or hidden content behind the dream that was too unpleasant or disturbing to reach the threshold of consciousness in explicit form.

As George Makari notes in his recent book *Revolution in Mind: The Creation of Psychoanalysis*,

Freud’s unconscious was unknowable in itself and unstructured by considerations of time, space and causality. It held no opposites...and
no logical categories but rather was the stuff of animal passion. The power of this hidden domain was only known indirectly through its effects on consciousness. Nothing from the unconscious reached consciousness without passing the defenses.

Freud’s analysis of dreams included the construction of a physiological model of the relationship between conscious and unconscious processes. There is an active protective censor that prevents unpalatable thoughts from reaching consciousness. External stimulation gives rise to perception and motor responses and as a result, the nervous system expends some energy. This release of energy often produces a sense of pleasure or relief (take, for example, even as trivial a matter as scratching an itch). Tension is unpleasant (imagine not being able to scratch an itch). In sleep, motor processes are inhibited (our muscles are in fact temporarily paralyzed in deep sleep), so neural excitation no longer is released through external action but instead, flows into the brain to trigger unconscious memories, a process that Freud called ‘regression’. The backward flow of energy released hidden memories of primitive satisfaction experienced during childhood. Regression during sleep produced hallucinations (dreams) reflecting unconscious wishes that could not be realistically fulfilled, while in waking life an active internal censor prevented these alarming fantasies from emerging into consciousness.

What, then, is the role of conscious mental life itself? Freud thought of consciousness as a kind of perceptual organ, an inner ‘eye’ that allowed us to sense our own thoughts and feelings. The unconscious world is much like the external world of sensation; the contents of both inner and outer worlds are fundamentally unknowable. Reality includes objects that project energy to our sensory organs. We experience light energy as color and shape; yet we do not (and cannot) have direct experience of the objects themselves that generate this information. The unconscious world has the same ineffable (i.e inexpressible or unknown) quality, presenting its hidden contents to consciousness which then like an inner eye or ear, translates the information into qualitative experience. As Freud wrote: ‘...in its innermost nature, ...(the unconscious..) 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’.