Chapter 5

Psychoanalysis in Theory and Practice

Chapter Goals

- Reveal some of the complexities of Freud's theories
- Present some of the controversies regarding Freud and psychoanalysis
- Contrast the Freudian view of the unconscious with those of recent neuroscientists
- Detail the theory behind psychoanalysis as a treatment
- Explain the process of psychoanalytic treatment

FREUD'S CONCEPT OF PERSONALITY TYPES

Psychoanalytic theory holds that as children progress through the five stages of psychosexual development, their libidinal energy continually reattaches itself—or cathects—to other objects. In Freud's terminology, an object is an unconscious mental representation of the target or focus of sexual or aggressive desires. In the early stages of development, the child's libidinal energy is focused on infantile objects. If all goes well in the child's development, however, cathexes are redirected toward more mature objects. On the other hand, the individual can become fixated or regressed if any of the earlier developmental stages is marked by either overindulgence or trauma. In other words, such a person's libidinal energy remains locked within a less mature stage. The personality typology that Freud proposed was founded on this notion. In his opinion, people who have a disproportionate amount of libidinal energy invested in one of the developmental stages will exhibit personality characteristics associated with that stage.

Freud's explanation of both normal and pathological personalities is based on the many ways a person can move through the stages of development. The healthiest passage is afforded to the person who completes the stages without having any of his or her libido fixated on earlier stages. He used the analogy of an advancing army. If an army tends to leave

behind groups of soldiers at various bases along the line of march, it will have less strength for the real battle—in this case, the battle against cruel reality and the ordinary miseries of life. Sadly, Freud considered some amount of fixation inevitable; all of us, as he saw it, will develop fixations to some degree. In his system, people are constitutionally predestined to be always somewhat immature and attached to childish things.

Freud's account of this process begs the question as to exactly how fixation takes place. He answered this question by first proposing that the general tendency toward fixation is constitutional or hereditary. In other words, whatever the cause of a specific fixation, some people are by their essential nature more susceptible to develop it than others. The specific triggers of fixation are quite problematic, irrespective of a person's susceptibility. A fixation can take place in a given psychosexual stage if the child feels too comfortable in that stage, so that moving on to the next phase results in distress and frustration. Conversely, if a child is traumatized or even displeased during a specific stage, he or she can also become fixated in that stage.

Freud compared the process of fixation to the flow of fluid under pressure. Water or some other fluid will naturally flow from higher to lower pressure; however, if openings occur along the path of flow, the fluid will collect in or leak through those openings. The fluid in this metaphor is the libido, which Freud viewed as a finite form of psychological energy. Should some of a person's life energy be diverted into an opening (fixation) associated with a particular stage, it will collect there until it is released through the process of psychoanalysis. An obvious problem with this metaphorical explanation is that libido itself is a metaphor. There is no objective or measurable process in psychology or physiology that corresponds to this metaphorical concept. The exact concept of a fixation must therefore remain vague in Freud's system.

Oral Personalities

Freud viewed people as existing in a state of perpetual internal conflict. The human psyche is a set of irreconcilable forces drawing on a limited amount of mental energy. His view of personality types is similarly negative in that he regards them as the result of aberrations in the developmental process. The unsatisfactory completion of a psychosexual stage will lead to a personality type that confines the individual within that stage. For example, if one's libidinal energy becomes fixated on oral pleasure, the individual will manifest a personality style that distinctly reflects this focus. It follows that because infants in the oral stage are passive and dependent, adults who are fixated in this stage will tend to be dependent, ingratiating, and compliant. Just as the child tends toward optimism, equanimity, and delight, so, too, is the orally fixated adult. Such a person will tend to be a Pollyanna, gullible, and easily led.

The oral personality regards the mouth as the greatest source of pleasure, so that eating and drinking will often be taken to excess. Obesity, alcoholism, smoking, and even drug abuse are blamed by Freudian theorists on oral fixations. Because people with substance addictions or eating disorders are dependent and prone to excessive intakes of food or their drugs of choice, Freud's theory of fixation as the root of their personality type seems to have **face validity**—that is, it looks like it offers a satisfactory explanation of what it is intended to explain.

Some of Freud's followers divided the **oral personality** type into two subcategories, the more common of which is referred to as the oral dependent, oral passive, or oral receptive personality The other subtype is the oral aggressive personality, which is negativistic and

given to sarcastic or biting comments. In direct contrast to their passive counterparts, oral aggressive individuals will be distrustful, demanding, and manipulative.

Anal Personalities

The anal personality has an excessive amount of libido fixated on the pleasures discovered during the period of toilet training. In learning to control bodily wastes, children become concerned with avoiding soiling themselves by defecating in appropriate locations at acceptable times. They will also derive great pleasure from the act of defecating and the associated parental accolades for doing so. A libido fixated at this stage leads to a personality style in which the person seeks order, control, and precision. Because the anal personality arises during the time when the superego is formed, a fixation at this stage can lead to a highly moralistic and overly controlled personality style.

Freud suggested that children in the anal stage of development regard the release of their feces as a gift to the parent—a gift that can be given or withheld. Children will release the feces if given sufficient love and withhold them if not. In Freudian thought, fecal matter becomes a type of currency in the parent-child relationship, which can be withheld or dispensed, thus giving the child a sense of control. The word *currency* is appropriate in this context; Freud assumed that the human unconscious makes a symbolic equation between feces and money. In a 1911 paper on dreams in folklore, he noted that according to ancient Eastern mythology, "gold is the excrement of hell" (Freud & Oppenheim, 1911/1958, p. 157).

As with the oral personality, there are two types of **anal personality,** anal-retentive and anal-expulsive. Anal-retentive children hoard their feces in miserly fashion, releasing wastes only when strongly encouraged or rewarded. These characteristics are supposedly present in anally fixated adults who demand that others offer them devotion and sacrifice. Anal-retentive adults hoard love and affection while commonly withholding their own affection from others. Another type of anal-retentive person is the individual who seeks to obsessively control his or her environment and the people in his or her life, often by being stingy or miserly. Anal-retentive personalities are symbolically seeking to control their feces and the soiling associated with elimination. The anal-retentive is the more stereotypical and common type of anal personality. The latter, the anal-expulsive type, is the direct opposite. Anal-expulsive people tend to be sloppy, profligate, careless, emotionally disorganized, and defiant, although some of them display some artistic talent as well.

Phallic Personalities

Freud thought that fixations in the phallic stage of development can lead to a few additional distinct personality types. As discussed previously, the so-called Oedipal crisis takes place during the phallic stage; thus fixations at this point are believed to have a profound impact on the growing child's personality. Since the Oedipal crisis is especially sexual in nature, fixations associated with it will tend to have a sexual focus. A phallic fixation can lead to an individual with a narcissistic, egotistic, or overly sexualized personality that may include serial marriage, polygamy, or polyandry. The phallic personality will tend to use sex as a means to discharge emotional tensions and will often have sexual relationships that are superficial and lacking in love or affection. Should the fixation take place in a male child

during the period of most intense castration anxiety, he may well turn out to be attracted to countercultural movements, to be supportive of radical causes, or to be an advocate of social change.

Freud thought that assertiveness or strength in a woman was evidence of a phallic stage fixation and failure to resolve the Oedipal crisis in a satisfactory fashion. This failure led to what Freud called a **masculinity complex:**

> It points to a complication in the case of girls. When they turn away from their incestuous love for their father, with its genital significance, they easily abandon their feminine role. They spur their masculinity complex into activity, and from that time forward only want to be boys. (Freud, 1959, p. 186)

The girl's failure to accept her lack of a penis means that she will become a woman fixated on acting like a man. Consequently, all professional women would be regarded by traditional Freudian theorists as exhibiting a pathological fixation. The concept of the masculinity complex is clearly bound to the Central European culture of Freud's time. So, too, is his notion that competitive women are castrating females, as he believed that they competed with men with the unconscious goal of stealing the male penis. The unwillingness to accept the absence of a penis can also lead to a focus on the clitoris as the central sex organ rather than the vagina, Freud thought. Lesbianism is also viewed as a variant of these kinds of phallic fixations. According to Freud, a lesbian has taken this masculine fixation to its extreme and seeks to play the male role with another female.

Homosexuality in men is also considered a type of phallic fixation. Freud thought that the typical homosexual male was pampered by an overly protective mother during his phallic stage. An unusual degree of closeness and comfort with his mother leads to his identifying with her rather than making her an object of sexual interest. By identifying with his mother, the gay man develops a feminine type of sexuality. His fixation on this highly satisfying period of his life leads to his seeking a way to preserve the bond between mother and son. To accomplish this goal, he will take on the role of a mother with other boys, making them the focus of his libidinal drives. The boys, however, are only proxies for him in that they play the role of the loved son. Hence, homosexual love is considered by traditional Freudians to be an immature and narcissistic form of self-love. Given Freud's theory of psychosexual fixations, one can readily understand one potential source of criticism of Freudian theory. Specifically, Freud's system of thought tends to view all human behavior as symptomatic of some kind of pathology.

Genital Personalities

If Freud believed there were any people free of neurosis, they would be adults with a fully developed genital personality. Freud only implied the existence of a genital personality and never actually proposed a distinct personality type associated with this stage of development. However, an early follower of Freud named Wilhelm Reich (1897–1957) described the genital personality in this way:

> Since [the genital character] is capable of gratification, he is capable of monogamy without compulsion or repression; but he is also capable, if a reasonable motive is

given, of changing the object without suffering any injury. He does not adhere to his sexual object out of guilt feelings or out of moral considerations, but is faithful out of a healthy desire for pleasure: because it gratifies him. He can master polygamous desires if they are in conflict with his relations to the loved object without repression; but he is able also to yield to them if they overly disturb him. The resulting actual conflict he will solve in a realistic manner. There are hardly any neurotic feelings of guilt. (Reich, 1929/ 1948, p. 161)

The genital personality can be said to be exemplified by those people who pass through all prior stages of psychosexual development with a sufficient supply of libido to perform productive work, love others in a mature fashion, and reproduce. In contrast to these healthy specimens of humankind, people with fixations in earlier stages will tend towards **narcissism**, **fetishism**, and other barriers to mature heterosexual gratification. Thus, men with **paraphilia** and women with frigidity or other arousal disorders would be examples of people who fail to achieve the level of maturity required for genital personalities.

回 PSYCHOANALYTIC NOSOLOGY

Psychoanalytic treatment sought to resolve conflicts that were typically centered on maladaptive sexual functioning. The reader should recall that libido, which refers to both the sexual energy within a person and the person's general life force, can lose its direction. It can become detached from appropriate targets, attached to inappropriate objects, and thereby cause emotional and personality malfunctions. *Neurosis* is the term Freud used to describe the state of libidinal dysfunction.

Actual neurosis. **Actual neurosis** was a term first used by Freud in 1898. He used it to describe an inversion of libido resulting in acute impairments of sexual functioning and physiological consequences of present disturbances in sexual functioning. He distinguished actual neuroses from psychoneuroses, which he regarded as due to psychological conflicts and past events. He further distinguished two types of actual neurosis—**neurasthenia**, which he attributed to sexual excess, and **anxiety neurosis**, which he saw as the result of unrelieved sexual stimulation. Freud later also included hypochondria, or excessive concern with one's health, among the actual neuroses.

Psychoneurosis. This term appears in Freud's early writings and is used to define a series of transference neuroses, including hysteria, phobias, and obsessional neurosis. The symptoms of the psychoneuroses are symbolic expressions of infantile conflicts in which the ego defends itself from disagreeable representations from the sexual sphere.

Transference neurosis. Transference neuroses, according to Freud, are childhood neurotic patterns played out by patients during psychoanalytic sessions. He defined **transference** itself as the process in which the **analysand** transfers to the analyst emotions experienced in childhood toward parents or other important figures. The transference neuroses include: (a) conversion hysteria, in which the symptoms are physical complaints; (b) anxiety hysteria, in which the patient experiences excessive anxiety in the presence of an external object (phobia); and

(c) obsessional neurosis, in which the predominant symptoms are obsessive thoughts and compulsive behavior. According to Freud's student and translator Abraham Brill (1938), all transference neuroses are rooted in disturbances of the patient's libido:

> The transference neuroses, hysteria and compulsion neuroses, are determined by some disturbance in the give-and-take of object libido, and hence are curable by psychoanalytic therapy, whereas the narcissistic neuroses, or the psychoses which are mainly controlled by narcissistic libido, can be studied and helped, but cannot as yet be cured by analysis. The psychotic is, as a rule, inaccessible to this treatment because he is unable to transfer sufficient libido to the analyst. The psychotic is either too suspicious or too interested in his own inner world to pay any attention to the physician. (Brill, 1938, p. 16)

Narcissistic neurosis. Freud used this term to distinguish conditions inaccessible to psycho-analytic treatment from the transference neuroses, which were more amenable to psycho-analysis. The narcissistic neurosis represents a conflict between the ego and the superego, as opposed to the transference neurosis, which involves a conflict between the ego and id. Freud believed narcissistic neuroses are refractory to psychoanalytic treatment:

> In the transference neuroses we also encountered such barriers of resistance, but we were able to break them down piece by piece. In narcissistic neuroses the resistance is insuperable; at best we are permitted to cast a curious glance over the wall to spy out what is taking place on the other side. Our technical methods must be replaced by others; we do not yet know whether or not we shall be able to find such a substitute. To be sure, even these patients furnish us with ample material. They do say many things, though not in answer to our questions, and for the time being we are forced to interpret these utterances through the understanding we have gained from the symptoms of trans-ference neuroses. (Freud, 1920b, p. 365)

Traumatic neuroses. Some psychoanalysts after Freud conjectured that a neurosis can arise as a direct result of a trauma, thus the designation traumatic neurosis. Such a neurosis would not have unconscious causes and therefore could be addressed directly. Freud, however, rejected this notion:

> If anxiety is the reaction of the ego to danger, then it would be the obvious thing to regard the traumatic neuroses, which are so often the sequel to exposure to danger to life, as the direct result of life- or death-anxiety, with the exclusion of any dependence, in its etiology, upon the ego and castration. This is what was done by the majority of observers in the case of the traumatic neuroses of the last war, and it has been triumphantly claimed that proof is now at hand that jeopardy to the instinct of self-preservation is capable of giving rise to a neurosis without the participation of sexuality at all, and without regard to the complicated hypotheses of psychoanalysis. It is, as a matter of fact, extremely to be regretted that not a single reliable analysis of a case of traumatic neurosis exists. (Freud 1936, p. 66)

Psychosis. Freud saw psychosis as a condition characterized by hallucinations, paranoia, and hysterical psychosis (which he distinguished from hysterical neurosis). Freud explained the

essential difference between neurosis and psychosis as follows: "Neurosis is the result of a conflict between the ego and its id, whereas psychosis is the analogous outcome of a similar disturbance in the relation between the ego and its environment (outer world)" (Freud, 1959, pp. 250–251).

Psychoanalytic theory would therefore view a psychotic individual as one whose ego is too weak to handle the vicissitudes of life. Or the psychotic might be a person with an adequate ego who faces such severe adversity as to cause a complete collapse of ego functioning.

▣ PSYCHOANALYTIC PSYCHOTHERAPY

Despite any criticisms of his theories, Freud deserves credit for a comprehensive model of what it means to be human. In addition to his attempts to explain the nature of human personality and the course of its development, he provided accounts of group behavior and the role and origin of spirituality, regarding that what we consider the highest and most noble aspects of human thought and behavior arise from our lower instincts. Although Freud was pessimistic about the possibility of curing neuroses or effecting lasting changes in personality, he developed the first form of psychotherapy: psychoanalysis. This method of psychotherapy involves a therapist who plays the role of a blank screen on which the patient can project his unconscious impulses or conflicts. The psychoanalyst encourages the client to free-associate, or speak freely, about whatever comes to mind. In doing so, the client is expected to reveal portions of his or her unconscious conflicts from time to time. This method was also applied to dream analysis, in which the client would relate recent dreams and the analyst would seek to uncover the impulses and wishes that the dream disguised. The analyst also would interpret all behaviors directed toward him, whether positive or negative, as representations of conflicted emotions toward parental figures.

If clients displayed affection or sexual attraction to the analyst, the analyst would regard them as transferring repressed feelings for their parent to the analyst. The reader should recall Anna O's phantom pregnancy in this context. Conversely, if clients were angered or displeased with the analyst, the analyst would consider their negativity as repressed hostile impulses toward a parental figure rather than directed at the analyst. These specific psychoanalytic techniques are largely explorative even though they seek to reduce patients' suffering and improve their ability to function. Although Freud believed that personality change is possible, he was pessimistic about the practical merits of psychoanalysis in effecting such a change. The long and grueling nature of analysis, the verbal and intellectual skills required of the analysand, the anxiety and distress provoked by the exploration of one's past, and the limited effectiveness of psychoanalysis in treating the more severe mental disorders were some of the reasons for Freud's pessimism. He expressed himself on this and related issues as follows:

Allowing "repetition" during analytic treatment, which is the latest form of technique, constitutes a conjuring into existence of a piece of real life, and can therefore not always be harmless and indifferent in its effects on all cases. The whole question of "exacerbation of symptoms during treatment," so often unavoidable, is linked up with this. The very beginning of the treatment above all brings about a change in the patient's conscious attitude towards his illness. He has contented himself usually with complaining of it,

with regarding it as nonsense, and with underestimating its importance; for the rest, he has extended the ostrich-like conduct of repression which he adopted towards the sources of his illness on to its manifestations. Thus it happens that he does not rightly know what are the conditions under which his phobia breaks out, has not properly heard the actual words of his obsessive idea or not really grasped exactly what it is his obsessive impulse is impelling him to do. The treatment of course cannot allow this. He must find the courage to pay attention to the details of his illness. His illness itself must no longer seem to him contemptible, but must become an enemy worthy of his mettle, a part of his personality, kept up by good motives, out of which things of value for his future life have to be derived. The way to reconciliation with the repressed part of himself which is coming to expression in his symptoms is thus prepared from the beginning; yet a certain tolerance towards the illness itself is induced. Now if this new attitude towards the illness intensifies the conflicts and brings to the fore symptoms which till then had been indistinct, one can easily console the patient for this by pointing out that these are only necessary and temporary aggravations, and that one cannot overcome an enemy who is absent or not within range. The resistance, however, may try to exploit the situation to its own ends, and abuse the permission to be ill. It seems to say: "See what happens when I really let myself go in these things! Haven't I been right to relegate them all to repression?" Young and childish persons in particular are inclined to make the necessity for paying attention to their illness a welcome excuse for luxuriating in their symptoms. There is another danger, that in the course of the analysis, other, deeper-lying instinctual trends which had not yet become part of the personality may come to be "reproduced." Finally, it is possible that the patient's behavior outside the transference may involve him in temporary disasters in life, or even be so designed as permanently to rob the health he is seeking of all its value. (Freud, 1959, pp. 371–373)

Despite Freud's pessimism, however, psychoanalytic treatment has attempted to bring about both symptom relief and long-term personality change by liberating unconsciously invested psychic energy by bringing it to consciousness. This task is accomplished through several phases of treatment.

First Phase: Establishing the Therapeutic Alliance

The first phase involves developing a **therapeutic alliance** between the analyst and the analysand through a process in which the analyst elicits trust and faith from the analysand. The establishment of a therapeutic alliance is inherently more difficult in psychoanalysis than in other forms of psychotherapy, however, because the analyst must scrupulously avoid revealing any aspects of his or her own personality. Self-disclosure, whether biographical or attitudinal, would negate the therapist's usefulness as a blank screen. For example, the analyst could not be certain that behavior related to the transference was indeed issuing from the patient's unconscious instead of being a response to the therapist's behavior. Trust and confidence in psychoanalysis must, therefore, be earned by the therapist's steadfast consistency to the correct method.

Once this takes place, the client is encouraged to relate anything that comes to mind, no matter how trivial or irrelevant it may seem on the surface. Over time, the patient's free associations will result in a cathartic release of libidinal energy along with the strong emotions

that Freud expected clients to experience during such a discharge. These strong emotions in the presence of the analyst will further strengthen the therapeutic alliance and bring about the next phase of the analysis: the expression of the patient's **countertransference** and resistance.

Second Phase: Analyzing the Resistance

Based on Freud's experience with his own patients, he concluded that they would typically devise barriers for the analyst as the treatment moved toward issues closely related to their pathology. Freud suggested that what he called **resistance** to the analysis signified progress in the therapy: the greater the resistance, the closer the analyst was getting to the source of the patient's neurosis. Resistance is an unconscious process; consequently, the analysand will tend to believe that his or her behavior is externally caused or is a legitimate voluntary action. For example, coming late to or missing a session with the therapist is usually considered an instance of resistance. Even if the analysand is called to work at the last moment or has a bona fide family crisis, the analyst will usually invoke the principle of psychic determinism to judge the missed appointment to be a volitional act of the unconscious mind to avoid the anxiety provoked by the therapy. Other acts of resistance include silence, irrelevant discussions, refusing to pay the analyst's bills, or complaining of physical symptoms.

Third Phase: Analyzing the Transference

Freud believed that the analysand's feelings of affection for or anger at the analyst were actually emotions transferred from a significant figure from early life to the present-day therapist. The reader should recall that psychoanalysis holds that we create internal representations of people who have played important roles in our development. These representations are referred to as objects. Because Freud saw all mental or emotional energy as finite, if a portion of it is attached to an object from the past, less will be available to the analysand in his or her present-day life. Freud called the attachment itself a cathexis and spoke of either cathecting (attaching emotional significance to) or decathecting (withdrawing emotional significance from) an object. A corollary to the principle of the limited quantity of emotional energy is that feelings will be expressed toward the analyst during therapy. Freud first used the term transference in *Studies in Hysteria* and explained it this way:

> [Occasionally] the patient is frightened at finding that she is transferring on to the figure of the physician the distressing ideas which arise from the content of the analysis. This is a frequent, and indeed in some analyses a regular, occurrence. Transference on to the physician takes place through a *false connection.* I must give an example of this. In one of my patients the origin of a particular hysterical symptom lay in a wish, which she had had many years earlier and had at once relegated to the unconscious, that the man she was talking to at the time might boldly take the initiative and give her a kiss. On one occasion, at the end of a session, a similar wish came up in her about me. She was horrified at it, spent a sleepless night, and at the next session, though she did not refuse to be treated, was quite useless for work. After I had discovered the obstacle and removed it, the work proceeded further; and lo and behold! The wish that had so much frightened the patient made its appearance as the next of her pathogenic recollections and the one which was demanded by the immediate logical context. What

had happened therefore was this. The content of the wish had appeared first of all in the patient's consciousness without any memories of the surrounding circumstances which would have assigned it to a past time. The wish which was present was then, owing to the compulsion to associate which was dominant in her consciousness, linked to my person, with which the patient was legitimately concerned; and as the result of this *mésalliance*—which I describe as a "false connection"—the same affect was provoked which had forced the patient long before to repudiate this forbidden wish. Since I have discovered this, I have been able, whenever I have been similarly involved personally, to presume that a transference and a false connection have once more taken place. Strangely enough, the patient is deceived afresh every time this is repeated. (Freud, 1957, p. 303)

Seventeen years later, Freud elaborated on the concept of transference and linked it to his notion of the object or love-object.

Let us bear clearly in mind that every human being has acquired, by the combined operation of inherent disposition and of external influences in childhood, a special individuality in the exercise of his capacity to love—that is, in the conditions which he sets up for loving, in the impulses he gratifies by it, and in the aims he sets out to achieve in it. This forms a cliché or stereotype in him, so to speak (or even several), which perpetually repeats and reproduces itself as life goes on, in so far as external circumstances and the nature of the accessible love-objects permit, and is indeed itself to some extent modifiable by later impressions. Now our experience has shown that of these feelings which determine the capacity to love only a part has undergone full psychical development; this part is directed towards reality, and can be made use of by the conscious personality, of which it forms part. The other part of these libidinal impulses has been held up in development, withheld from the conscious personality and from reality, and may either expend itself only in fantasy, or may remain completely buried in the unconscious so that the conscious personality is unaware of its existence. Expectant libidinal impulses will inevitably be roused, in anyone whose need for love is not being satisfactorily gratified in reality, by each new person coming upon the scene, and it is more than probable that both parts of the libido, the conscious and the unconscious, will participate in this attitude.
    It is therefore entirely normal and comprehensible that the libido-cathexes, expectant and in readiness as they are in those who have not adequate gratification, should be turned also towards the person of the physician. As we should expect, this accumulation of libido will be attached to prototypes, bound up with one of the clichés already established in the mind of the person concerned, or, to put it in another way, the patient will weave the figure of the physician into one of the "series" already constructed in his mind. If the physician should be specially connected in this way with the father-imago (as Jung has happily named it) it is quite in accordance with his actual relationship to the patient; but the transference is not bound to this prototype; it can also proceed from the mother- or brother-imago and so on. The peculiarity of the transference to the physician lies in its excess, in both character and degree, over what is rational and justifiable—a peculiarity which becomes comprehensible when we consider that in this situation the transference is effected not merely by the conscious ideas and expectations of the patient, but also by those that are under suppression, or unconscious. (Freud, 1959, pp. 312–314)

Late Stages of Psychoanalysis

The later stages of psychoanalytic therapy are lengthier than either the early or middle stages, for the later phases are those in which interpretation assumes cardinal significance. Interpretation, or the analyst's explanations of the patient's emotions and behavior, can occur at any stage of psychoanalysis, but regular interpretation must wait until a solid therapeutic alliance has been formed and the therapist has become familiar with the patient's personality and major unconscious conflicts. The meanings of dreams, parapraxes, resistance, and transference reactions are among the topics that psychoanalytic therapists discuss with their patients. The goal of interpretation is to provide the client with insight, defined as an intellectual and emotional understanding of the unconscious determinants of one's behavior; and then to work through these unconscious issues to strengthen the ego, loosen the restrictions imposed by the superego, and gain better control over the id. In Freudian terms, the libidinal energy consumed by the neurosis itself and the defenses that keep it out of awareness can be freed to strengthen the ego. According to Freud, the goal of psychoanalysis was "Where id was, there ego shall be . . . where superego was, there ego shall be" (*Wo Es war, soll Ich werden*, a literal translation being "Where 'it' was, 'I' shall come to be" (Freud, 1933, p. 80).

While simply talking about unconscious conflicts can lead to catharsis and an intensification of the therapeutic alliance, Freud soon discovered that it is necessary to supply the patient with emotional insight into and an opportunity to work through his or her problems by addressing the transference reactions occurring in the therapy sessions. Freud viewed offering interpretations too early in the therapeutic process as equivalent to reading a cookbook to a starving person.

Risks of Psychoanalysis

Such critics of psychoanalysis as Hans Eysenck and Jeffrey Masson, who worked for a time in the Freud archives, have argued that in addition to the theoretical problems with Freud's theories, its clinical applications have violated the Hippocratic maxim: first, do no harm. One example of the potential of psychoanalysis to damage patients, however, is the term "schizophrenogenic mother," coined by Frieda Fromm-Reichmann (1889–1957) in 1948 in an attempt to explain the origins of schizophrenia (Fromm-Reichmann, 1948). For nearly a generation, psychoanalysts made use of this term, which implied that schizophrenia is caused by a mother who placed her child repeatedly in a **double bind** (Bateson, Jackson, Haley, & Weakland, 1956), which gives the child conflicting messages from a single source. A double bind in essence forces children into a psychological dilemma in which any response they make will be considered inappropriate. For example, a mother who scolds a child for not being affectionate enough but later punishes the child for being too dependent when the child tries to kiss her would be placing the child in a double bind. Despite the complete lack of evidence that double binding causes schizophrenia, many mothers were hurt by psychiatrists who falsely fixed the blame on them.

Similarly, psychoanalysts once said childhood autism was caused by parents. Parental indifference, a cold rejecting mother, or a failure to bond between parents and children were seen as the cause of this disorder, which is now almost universally considered to result from brain dysfunction. Moreover, autistic children were treated with psychoanalysis, which is now regarded to be an ineffective form of therapy for this disorder. Others criticize psychoanalysis as being an excessively long and costly, thus causing indirect financial harm, as more direct and less expensive therapeutic approaches are available.

⧉   CRITIQUES OF FREUD'S THEORIES

As Freud's theories and clinical techniques grew, so did the criticisms of his work. Some criticisms came from other physicians and others from the lay public. For example, the well-known writer Franz Kafka described psychoanalysis as follows:

> You say you do not understand it. Try to understand it by calling it illness. It is one of the many manifestations of illness that psychoanalysis believes it has revealed. I do not call it illness, and I regard the therapeutic claims of psychoanalysis as an impotent error. All these so-called illnesses, however sad they may look, are facts of belief, the distressed human being's anchorages in some maternal ground or other; thus it is not surprising that psychoanalysis finds the primal ground of all religions to be precisely the same thing as what causes the individual's "illnesses." . . . And does anyone really think this is a subject for treatment? (quoted in Szasz, 1988, p. 105)

The most common criticism of Freud's theories is that they are neither scientific nor stated in such a way that they can be tested empirically (Lynn & Vaillant, 1998; Macmillan, 1992; Webster, 2004). Some of these critics have even likened psychoanalysis to a religion (Sulloway, 1991) or secret society in which only members or initiates—in this case, researchers who have themselves been analyzed—are qualified to judge it, and that believing in its truths is a common starting point for those who wish to study it.

Is It Science?

The psychologist Hans Eysenck and the philosopher Karl Popper (1963, 1986b) have both challenged the notion that psychoanalysis meets the criteria of a science. Popper argued that for Freudian theory to qualify as a science, it should be accessible to tests constructed by others. Science cannot be based on belief or personal philosophy but must be based on evidence that others can attempt to disqualify. Popper believes that the predictions made by psychoanalysis are not predictions of overt behavior but of unseen psychological states. This reference to hidden states makes them untestable, to Popper's way of thinking. For example, Popper suggests that only when some individuals are not neurotic is it possible to experimentally determine if prospective patients are currently neurotic. He goes on to point out that because psychoanalysis holds that every individual is neurotic to some degree, it is impossible to design an experiment that would demonstrate the contrast between neurotic and non-neurotic people.

Eysenck (1986), who conducted the first study of the efficacy of psychotherapy, challenged the legitimacy of psychoanalysis based on his conclusion that it is ineffective:

> I have always taken it for granted that the obvious failure of Freudian therapy to significantly improve on spontaneous remission or placebo treatment is the clearest proof we have of the inadequacy of Freudian theory, closely followed by the success of alternative methods of treatment, such as behavior therapy. (p. 236)

Adolf Grünbaum (1923–), an eminent philosopher of science, has been a long-time cogent critic of Freudian theory. He has systematically challenged the major planks of psychoanalysis

(Grünbaum 2002, 2006, 2007): (a) its "cornerstone" that unsuccessful repression is the cause of neurosis; (b) the wish-fulfillment theory of dream-production; (c) its explanation of seemingly unmotivated bungled actions ("slips") as induced by repressed motives; (d) Freud's claim that his innovative method of clinical investigation by free association can identify the causes of neuroses, dreams, and slips; and (e) the contention that the psychoanalytic dissection of the adult patient's infantile behavior toward the analyst during treatment is the key to fathoming the pathogenesis of his/her disorder. Moreover, Grünbaum maintains that none of the evidential defects of Freud's edifice have been remedied by the post-Freudian modifi-cations of psychoanalysis.

Photo 5.1   Adolph Grünbaum (1923–)

In Freud's view, neurotic symptoms, the manifest contents of dreams, and our various "slips" are each constructed as "compromises between the demands of a repressed [instinctual] impulse and the resistances of a censoring force in the ego" (Grünbaum, 2001, p. 106). He assumes axiomatically that distressing mental states, such as forbidden wishes, trauma, disgust, anxiety, anger, shame, hate, and guilt—all of which are unpleasurable—almost always actuate, and then fuel, forgetting to the point of repression. Thus, repression wards off negative affect by banishing it from consciousness. Grünbaum does not deny the existence of this mechanism of repression, but he objects that Freud was disingenuously evasive in handling a genuine challenge to this scenario. Thus, Grünbaum writes:

> As Freud put it dogmatically: "The tendency to forget what is disagreeable seems to me to be a quite universal one" and "distressing memories succumb especially easily to motivated forgetting." Yet he was driven to concede that "one often finds it impossible, on the contrary, to get rid of distressing memories that pursue one, and to banish dis-tressing affective impulses like remorse and the pangs of conscience." Furthermore, he acknowledged that "distressing things are particularly hard to forget." Thus, some painful mental states are vividly remembered while others are forgotten or even repressed. Yet Freud's account is vitiated by the fact that factors *other than* the degree of their painfulness determine whether they are remembered or forgotten. (Grünbaum, 2001, p. 107)

Furthermore, Grünbaum points out that Freud explicitly failed to come to grips with this very damaging fact, when he tried to parry it, declaring: "Mental life is the arena and battle-ground for mutually opposing purposes [of forgetting and remembering]. . . . there is room for both." Finally, Grünbaum contests in depth the popular notion that psychoanalytic insight is curative.

Challenging Freud's Model

It has been close to a century since Freud proposed the three-layered model of the human mind, and in that time, research has not supplied evidence to support that the psyche works in the way that Freud proposed. The same is true for Freud's structures, the id, ego, and

superego. With the advent of **cognitive psychology,** however, has come a large body of work providing a more complex view of nonconscious processes. The term *nonconscious* is used here to describe mental activities that operate outside awareness, in contrast to the term *unconscious,* which implies a dynamic Freudian process.

Over the course of the last few decades, the trend in psychology has largely shifted from a behavioral paradigm to one of cognitive information-processing. Within this paradigm, researchers have moved toward both an acceptance and a new understanding of nonconscious thinking. Nonconscious processing has been shown to play a role in such aspects of our being as emotions, perception, attribution of meaning (Marcel, 1983a, 1983b), and *learning* (Reber, 1967). Exploring the development of this work will facilitate understanding of how recent research and thinking stand in contrast to Freud's models.

Ulric Neisser (1928–), a professor who published the first text on cognitive psychology in 1976, coined the term **preattentive processes** to describe those mental functions that occur without the subject's conscious attention.

The **Stroop effect**, a color-word task, is a classic example of this phenomenon. John R. Stroop (1897–1973), a psychologist in Tennessee, described the effect that bears his name in his doctoral dissertation, completed in 1935. Stroop noted that when individuals are asked to name the colors of the words in a chart similar to the one in Figure 5.1, they would often read the word itself rather than naming the color of its letters. Psychologists generally believe that the processing of lexical (word-related) information becomes automatic and preattentive in the sense that it has ceased to require conscious attention. In contrast, the naming of the colors of words is unusual, making it effortful and demanding conscious mental processing on the subject's part. More recently, the term *preattentive* has largely been dropped in favor of terms like *nonconscious* or *automatic* to describe mental activities that require little or no conscious awareness to complete.

Figure 5.1   Example of Stroop Effect

Red

Blue

White

Black

For example, people are quite capable of accumulating information about the frequency of events without conscious effort or attention; that is, they learn it nonconsciously. If people are asked a question like "Have you seen more German shepherds or cocker spaniels in your neighborhood?" they will usually deny any conscious knowledge about what dogs they may have seen recently but tend to be accurate when asked to guess. Hasher and Zacks performed extensive research into this phenomenon (Hasher & Zacks, 1979; Zacks, Hasher, & Sanft, 1982), and have provided evidence that people acquire information about the frequency of events without conscious effort and without being conscious that they have even done so. In fact, this automatic ability to acquire information about the frequency of events is largely independent of age, education, emotional state, and effort. In one early study, Hasher and colleagues (Hasher, Goldstein, & Toppino, 1977) presented a list of 48 words to elementary students in Grades 2, 4, and 6. They then presented the same

word list to college students. The participants were given word lists to study in which the words were presented from one to four times. In addition, the subjects were randomly assigned to one of two instructional groups. The first group was told that they should study the frequency of the words because they would be tested on that. The second group was not informed that they would be tested on the frequency of the words. After the participants had completed the study period, they were given a new word list and asked to measure how often the words in this second list had appeared in the study list. The new list contained all of the words in the study list plus 10 words that had not appeared. The results revealed that all subjects irrespective of age or instructional set (to study or not study frequency) did well in estimating the frequency of the words.

Implicit Learning

Arthur Reber, a professor of psychology at Brooklyn College, originated the expression **implicit learning** to describe "the process by which knowledge about the rule-governed complexities of the stimulus environment is acquired independently of conscious attempts to do so" (Reber, 1989, p. 219). In other words, Reber proposed that people have the ability to nonconsciously learn the relationships or rules of complex events that they encounter in daily life. To provide evidence of implicit learning, Reber and other psychologists developed artificial grammars based on rules similar to those set forth in the schematic shown in Figure 5.2. Letter strings generated from such rule systems were first presented to participants in the learning phase of experiments. The subjects were not informed that these letter strings exemplified a complex set of rules. They were, however, able to classify new letter strings as to whether or not the strings were formed according to these grammatical rules despite little conscious insight into the rule structure.

Subsequent researchers have demonstrated that implicit learning plays a crucial role in such basic human functions as language acquisition and the development of social and motor skills (Gomez & Gerken, 1999; Reber, 1992, 1993). Reber and his colleagues have proposed that conscious or explicit learning is an ability that humans acquired relatively late in their evolutionary history. In contrast, implicit learning, which occurs without consciousness, is thought to be a phylogenetically older form of learning that operates in organisms that have no conscious awareness (Reber, 1992; Reber & Squire, 1994). Evidence for the earlier development of implicit learning has been compiled through studies that showed that implicit learning is operative in people despite differences in age, neurological illness, psychological disorders, or basic intelligence level (Abrams & Reber, 1988; Reber, 1992; Reber, Walkenfeld, & Hernstadt, 1991).

A parallel line of research has been developed by the neurologist and neuroscientist António Damásio. Damásio's research into the role of emotions in cognition has led him to conclude that most models of human information-processing lack this important component. The emotional centers of the brain, according to Damásio, acquire frequency-related information that guides our decisions. He points out that people face a constant barrage of information through all five senses that far exceeds the capacity of consciousness. Damásio's research (Bechara, Dámasio, & Dámasio, 2003; Bechara, Dámasio, Dámasio, & Anderson, 1994; Holmes, 2004) suggests that decisions made in almost every situation require input from the emotional centers in the limbic system of the brain, feedback that is nonconscious and nonverbal but vital. These emotional memories are also acquired nonconsciously through automatic frequency associations. For example, a person who has gambled intermittently

Figure 5.2   Example of Artificial Grammar in Implicit Learning
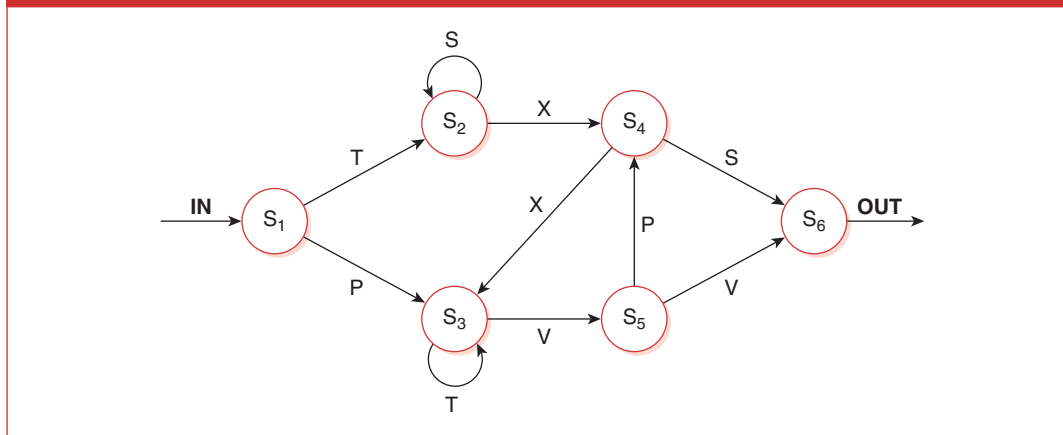
NOTE: In this schematic, grammar strings are produced by following any path of arrows leading from the initial State 1 to the terminal State 6. The following are the five basic strings in this grammar with the loops or recursions in brackets: 1. T[S]XS; 2. T[S]XX[[T]VPX]VV; 3. T[S]XX[[T]VPX]VPS; 4. P[[T]VPX]VV; 5. P[[T]VPX]VPS.

across many years with very poor outcomes may not have any conscious awareness of his actual gambling performance. According to Damásio, the man's emotional centers will store the negative affect associated with gambling so that thinking about doing it again will result in an uncomfortable or uneasy feeling. This hypothesis makes a great deal of sense from an evolutionary perspective, as our precognitive progenitors would benefit from a mechanism guiding them to avoid situations that had caused fear or pain.

Damásio (1995) demonstrated the way in which emotional guidance works nonconsciously in a study using a card game. In this study the participants were asked to sit in front of four decks of cards labeled A, B, C, and D. The players were each given a loan of $2,000 in play money that looked genuine and instructed to try to lose as little of their stake as possible while trying to win as much money as they could.

The game involved turning over cards one at a time from any of the four decks until the experimenter told the participants to stop. The subjects were not informed how many card turns they would be allowed. They were also told that most card turns would result in winning some money but that certain others would result in paying a fine to the experimenter. The subjects were given no other information about the amounts to be won or lost. The participants were encouraged to learn the best strategy to win the most money. An important feature of the experiment was that the four decks differed markedly in their payouts. Some of the decks contained cards with bigger payouts but also held cards with very large fines.

The participants in the study consisted of two groups of people; the first group were healthy subjects, while the second included people who had suffered prior damage to the ventromedial prefrontal lobes of the brain. Despite the complexity of the card payout system, the intact participants generally discovered the correct strategy to maximize their rewards. The participants with damage to the frontal lobes of their brains, however, would almost always persist in a strategy that would be profitable in the short run but cause losses in the

Table 5.1	Damásio's Gambling Experiment			
Variables	*Deck 1*	*Deck 2*	*Deck 3*	*Deck 4*
Reward	$100	$100	$50	$50
Probability of the reward	1	1	1	1
Fines	$150–350	$1,250	$25–75	$250
Average fine	$250	$1,250	$50	$250
Probability of a fine	0.5	0.1	0.5	0.5
First punishment appears at	Card 3	Card 9	Card 3	Card 10
Expected value of a card	−$25	−$25	+$25	+$25

SOURCE: Damasio, A. R. (1995). *Descartes' error: Emotion, reason and the human brain.* New York: Quill.

long run. Interestingly, the brain-damaged individuals had IQs comparable to those of the intact participants but lacked the ability to express emotions.

Damásio proposes that it is emotional feedback that helps people intuit optimal choices nonconsciously in tasks like the card game. To help the investigators examine the subjects' underlying responses, the subjects had electrodes placed on their skin to measure their galvanic response (resistance of the skin to a mild electrical current). Remarkably, the participants with intact brains began to exhibit subtle levels of emotional arousal when confronted with the decks that contained a disproportionate number of bad choices before they were able to explain their choices in words. In contrast, the participants with damaged prefrontal lobes were never able to master the card game despite normal intelligence; moreover, they never showed any significant level of emotional arousal when facing bad choices.

Nonconscious Processes

The notion of nonconscious automatic processes has grown with the development of cognitive psychology (e.g., Anderson, 1985; Erdelyi, 1985; Lachman, Lachman, & Butterfield, 1979). We can see the beginnings of this distinction from researchers like Broadbent (1958), who represented the conscious mind as a system with limited capacity. He suggested that the role of consciousness is to filter out the less relevant stimuli from the sensory barrage that we encounter at all times. An example of such filtering would be a parent's ability to detect his or her child's face in a crowd of other children on a large playground. Broadbent's original model, however, did not allow for any processing of the ignored or filtered stimuli.

A classic experiment by Moray (1959) then established that the role of attention is not merely to filter out less relevant sensations or stimuli. He employed a task known as shadowing, in which subjects wearing headphones had to monitor a message that entered one ear and repeat the message back to the experimenter. While the subjects were monitoring, their names

would be occasionally sounded through the headphone into the unattended ear. Rather than filtering out this stimulus, many of the subjects reported being aware that their names were sounded. Moray concluded that some subjects were able to shift attention rapidly from the attended ear to the unattended one. Other researchers (Deutsch & Deutsch, 1963; Norman, 1968) then presented evidence to show that all sensory input is monitored outside prior to reaching a person's attentional or conscious levels. The consensus was that this monitoring operates in a manner quite different from that envisioned by Freud; that is, the mind's filters do not include censors based on social standards, sexual impulses, or aggressive drives.

This research prompted others to further investigate consciousness as a system with limited capacity encompassing attended as well as unattended channels. Posner and Boies (1971) demonstrated that a task requiring little or no attention can be performed at the same time as a task that requires participants to focus or concentrate. Their research led them to conclude that attention has three components: alertness, selectivity, and processing capacity. They further concluded that while these three components of attention are related to conscious awareness, many tasks do not require all three components and therefore remain unconscious. They proposed that "conscious awareness is rather late in sequence of mental processing" (p. 407); such operations as relating sensory input to long-term memory can occur outside of consciousness.

In a related study, Posner and Snyder (1975) performed an experiment to demonstrate the functional dichotomy between automatic and attentional processes. The subjects were given priming letters that would either correctly or incorrectly cue the first letter of a letter pair. Their task was to determine as rapidly as possible whether both letters in the pair were the same or different. The primes are predictors of varying likelihoods depending on the letter. If the prime was presented rapidly before the pair of letters, the subjects' ability to determine sameness or difference was facilitated if the prime was an accurate predictor. If the predictor was incorrect, the subjects were not inhibited in their reaction time. If the subjects were presented with a long interval between the prime and the pair of letters, their reaction times tended to increase. These findings demonstrate that automatic processing occurs on two levels, one requiring some attention or consciousness, the other virtually nonconscious or preattentional. The work of Posner and Snyder also showed that conscious expectations can impair the automatic processes.

Shiffrin and Schneider (1977) demonstrated that conscious effort can indeed affect the automatic processes. In fact, their research indicated that **automaticity**—the ability to perform an action without conscious attention to minor details of the action—is acquired through conscious practice. Subjects who had practice in doing their experiments were able to monitor a large number of simultaneous sources of signals for a single target. Thus, a task that originally required conscious mediation required less and less attention as the subjects gained practice until it became entirely unconscious with virtually no central limitations. The subjects, however, still viewed the process as being consciously controlled. It is processed so rapidly in short-term memory that cognizance is not attained. An important secondary aspect of this theory is that controlled processes are required for storage in long-term memory.

Learning to operate a car or truck with a manual transmission is a typical illustration of the phenomenon of acquired automaticity. When we first begin to learn to shift gears, each step of the process is completely conscious and frequently precludes other complex tasks. When we have practice doing this, however, we can carry on a conversation, read street signs, or plan future activities while shifting gears. We may even complete a trip with little or no memory of ever shifting gears or even of driving at all. Yet, at any time, we can apply focused attention to gear shifting—for example, if we notice a hazardous condition on the roadway—and

the process will become fully conscious. Automaticity exemplifies the notion that the unconscious is acquired through learning.

This point of view contrasts with Freud's idea that the unconscious contains fundamental processes unique to itself. Posner in a review (1982) of the research on automatic processes agreed that automaticity is a function of reduced demands on attentional resources. He suggested that people can monitor two channels of sensory information simultaneously because no interference occurs over the sensory channels employed, but that conscious awareness of any of the information coming across the channels imposes a drastic limit. An example might be a piano student who is playing a difficult piece from memory. The student can be aware of the feel of the keys beneath his fingers and the sound of the notes at the same time without interference, but if one of the notes sounds out of tune, it will intrude on the pianist's conscious awareness.

Cognitive psychology's support for the concept of a nondynamic unconscious has led some Freudians to use it as a basis for supporting Freud's conjectures. Other researchers (O'Brien & Jureidini, 2002) suggest that this effort is inherently ordained to fail, as they maintain that the human brain is inherently structured for nonconscious mentation in a way incompatible with Freud's models. Indeed, studies of cognition, cognitive neuroscience, and related fields have revealed that a large portion of our brains do function without conscious intermediation. Similarly, functions that are sometimes conscious, like the example of driving with a manual transmission, can operate at other times without the subject's conscious awareness. These observations differ from Freud's premises in that his dynamic unconscious had its own volition arising from developmental pressures, societal mores, and biological predispositions—premises that are essentially at odds with more recent findings. Cognitive models of nonconscious mentation depict the processes of attention, sensation, perception, memory, and related functions all interacting in a logical fashion. This picture stands in direct contrast to the Freudian notion of an irrational unconscious driven by an id.

Freud originally attempted to link hysteria and other manifestations of the unconscious to the workings of the brain in his reductionistic *Project for a Scientific Psychology* (1950; published in German in 1895 as *Entwurf einer Psychologie*). He gave up, conceding that his knowledge was insufficient to explain the brain in terms of the internal connections between two different types of neurons or nerve cells. More recent neuroscientists have provided evidence that the unconscious is an essential aspect of the structure of the human brain. This concept was cogently set forth through the work of Paul D. MacLean, who researched this issue for several decades (MacLean, 1954, 1972).

The Triune Brain

MacLean concluded that the human brain is a triune brain in that it can be anatomically and functionally divided into three distinct subbrains (see Figure 5.3), which he named the reptilian, paleomammalian, and neomammalian brains (MacLean 1977a, 1977b). MacLean observed that each of these regions has internal connections among its various structures that are more efficient than its connections to the other subbrains. The reptilian brain contains the brain stem, the midbrain, the **basal ganglia**, the **hypothalamus**, and the reticular activating system. These structures resemble the complete brains of the reptiles, our distant ancestors. In reptiles, these structures are sufficient for the tasks of learning, aggressive and defensive behaviors, and intake and reproduction (MacLean, 1985).

Figure 5.3   McLain concluded that the brain is a triune brain: divided into three subsections
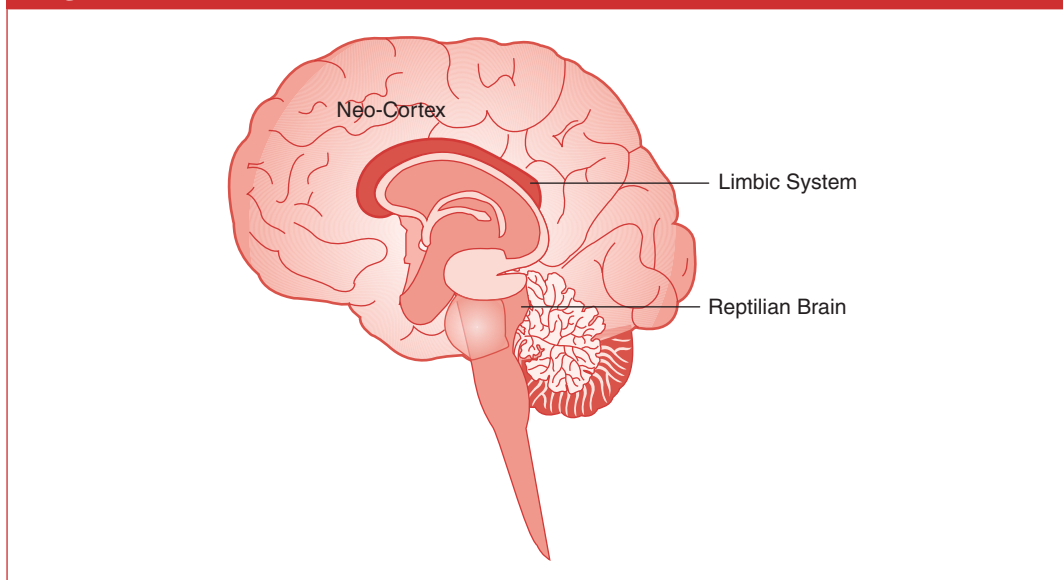
The paleomammalian brain, according to MacLean, comprises the brain's limbic system, whose name comes from the Latin word for "edge." The paleomammalian brain is a complex of brain centers that serve the role of mediating survival behaviors and the associated drives, rewards, and punishments. In other words, the paleomammalian brain is the set of structures in which we feel the delight of pleasure as well as the unpleasant sensations of hunger and the torment of pain. The paleomammalian brain regulates all of our behaviors through its ability to impose the rewards and punishments that guide our decisions. These two older subbrains, according to MacLean, contain the legacy of our distant ancestors passed down through evolution and genetic transmission. Territoriality, group aggression, courtship, mating, and socialization are all behaviors that these less conscious systems regulate. It follows that the essential qualities of human personality arise there.

This hypothesis is supported by studies of people with damage to the limbic structures of their brains, who almost invariably undergo marked personality changes. There is the famous case of Phineas Gage, a 28-year-old railroad worker in Vermont, who was injured in an accident in 1848 in which an explosion blew a 30-inch-long tamping iron through his skull; it entered through his lower left cheekbone and exited the top center of his head. Remarkably, Gage survived the accident, living for 12 years after the event. However, all who knew him reported a marked change in his personality. Originally polite and diligent, he became an impulsive ne'er-do-well who could not sustain work, was foul-mouthed and aggressive. Gage's case is usually cited as one of the earliest pieces of evidence in neurology that damage to various parts of the brain can affect personality as well as vision, hearing, and other forms of sense perception (Haas, 2001).

Animals with lesions in the limbic system tend to lose some or all of their species-specific behavior. Lesions in the amygdala are known to cause overeating and obesity in rats, dogs, mice, and monkeys (King, 2006), and damage to the hippocampus causes epileptic seizures in cats (Fatzer, Gandini, Jaggy, Doherr, & Vandevelde, 2000). Veterinarians have also discovered that certain types of anesthetics used during veterinary surgery selectively affect the limbic system in cats, dogs, and other small mammals, slowing the animals' response to signs of danger or pain. Traumatic damage to the limbic system in dogs and cats removes interest in as well as the ability to mate (Kohn, Wixson, White, & Benson, 1997).

In humans, it appears that emotional memories are mediated by limbic structures like the hippocampus and the amygdala. MacLean concluded that each subsystem of the human brain evolved as a superimposition on the older system. This evolutionary process has led to a complex brain that can be at odds with itself on occasion. The more primitive subbrains send impulses that are inscrutable or even uncomfortable to the neomammalian brain, the set of structures in which consciousness most likely has its locus.

MacLean (1954) coined the term *schizophysiology* to describe the inevitable conflicts that arise within a brain constructed of layers that are phylogenetically distinct. Such conflicts result from the fact that our verbal knowledge and moral values are stored in different areas of the brain from those that house our emotions and feelings. MacLean (1977a) referred to these internal discontinuities as "conflicts between what we feel and what we know" (p. 319). An example of this type of conflict would be the situation of a person who has gotten into an angry argument with an office coworker. He may feel like punching the colleague in the face but knows that a physical assault would cost him his job. If MacLean is right, then irrational behaviors, aggression, and sexual conflicts can be explained by the activity of a brain that contains some structures that are not always compatible with others.

Interestingly, the conflicts that Freud had described in terms of metaphors drawn from physics can be explained by the model of MacLean's triune brain, each component of which works somewhat independently. For example, a person whose limbic system is reacting to external events may experience anxiety without the person's having a conscious apprehension of the source of the anxiety. A high level of arousal would in many circumstances provide an adaptive advantage, for it would allow the person to flee more quickly when confronted with a predator or other danger. In other circumstances, stimulation of the limbic system yields only a vague anxiety that Freud interpreted as a sign of neurotic conflict.

Why did the human brain evolve in such an unsystematic manner? The reason is that at every stage in its development, the human brain had to remain functional. There was no point at which the human brain could be shut down and redesigned from scratch. New cities, or new parts of older cities whose construction was planned, are laid out in even parallel streets, while the streets of such older cities as London or Boston resemble a maze. That is because those old cities could not be torn down completely and rebuilt from scratch; rather, an already existing circuitous path had to be maintained while the newer buildings or roadways were constructed. Similarly, archaeologists often find the ruins of ancient buildings in cities like Rome or Jerusalem, whose origins go back over several millennia, when construction workers preparing the foundation of a new building or highway uncover objects that are centuries old. The human brain is something like an old city, with several layers of "streets" or "buildings" lying on top of one another.

A Network of Modules

MacLean's research has been corroborated by numerous other scientists who see the brain as a network of integrated modules that can function with varying degrees of autonomy. For example, the neuroscientist Michael Gazzaniga (1985) writes:

> I argue that the human brain has a modular-type organization. By modularity I mean that the brain is organized into relatively independent functioning units that work in parallel. The mind is not an indivisible whole, operating in a single way to solve all problems. Rather, there are many specific and identifiably different units of the mind dealing with all the information they are exposed to. The vast and rich information impinging on our brains is broken up into parts, and many systems start at once to work on it. These modular activities frequently operate apart from our conscious verbal selves. That does not mean they are "unconscious" or "preconscious" processes and outside our capacity to isolate and understand them. Rather, they are processes going on in parallel to our conscious thought, and contributing to our conscious structure in identifiable ways. (p. 4)

Gazzaniga (Le Doux & Gazzaniga, 1981) proposes that many of our social judgments and behaviors take place outside consciousness as a result of background processing by specialized brain modules. Gazzaniga was instrumental in conducting much of the research into the so-called split-brain phenomenon. Based on his research with people whose **corpus callosum** has been severed, Gazzaniga went on to suggest that information may be processed simultaneously by a number of functionally isolated modular mental systems. He, like MacLean, Reber, and Damásio, believes that humans process conscious, verbally accessible information separately from information related to the emotions. Gazzaniga also theorizes that humans possess a master module that he calls "the interpreter," which corresponds to our personal consciousness. The interpreter is the "I" that we refer to in subvocal self-talk when we are reasoning about a problem. The numerous other modules in the brain are processing visual, auditory, and other sensory information largely independently of the interpreter module. Quite often, the interpreter might be so much out of the processing loop that it forms inaccurate conclusions about the information processed by other brain modules.

Such errors are dramatically exhibited in studies of individuals with split brains.[1] In one experiment, such people are seated before a computer, and a request to pick up an object is flashed rapidly on the display screen. The request is seen only on the left side of the retina as it is flashed too rapidly on the screen to allow subjects to move their eyes to scan the image across the full retina. Because the left half the retina of each eye connects to the right hemisphere (as the right half does to the left hemisphere), the message to pick up the object is relayed only to the right side of the brain, the nonverbal hemisphere. If patients are asked to "pick up the pen on the table," they will typically do so. When asked why they did so, however, they will usually explain that they decided on their own that they wanted to pick up the pen. This **confabulation**, which is an attempt to fill in a memory gap and not a deliberate lie, results from the fact that the spoken answer is generated by the verbal side of the brain—the left brain, which did not see the message and therefore cannot know why the right brain directed the person to pick up the pen.

In a similar experiment, the researcher asked a split-brain subject to point to the picture that went best with several other pictures presented on a display screen. A snow scene was presented in such a way that it could be seen only by the subject's nonverbal right hemisphere. The participant then pointed to the image of a snow shovel with his left hand—which is controlled by the right hemisphere. When the right hemisphere was presented with the snow scene, the verbal left hemisphere was shown a drawing of a chicken claw. The split-brain participant then pointed to the image of a chicken. When asked to explain why his left hand pointed to a snow shovel, the participant responded: "The chicken claw goes with the chicken and you need a shovel to clean out the chicken shed."

This experiment is typical of split-brain studies in two respects. First, research has shown that each hemisphere of the brain is able to think and act independently of the other. Second, when split-brain subjects are queried about volitional acts governed by the nonverbal hemisphere, their verbal hemisphere tends to confabulate an explanation of the act's intent or purpose. It seems as though our conscious mind dislikes any awareness of nonconscious processes.

Taken as a whole, the evidence is quite strong that nonconscious processing is an inherent feature of the human brain. The evidence is also strong that it underlies many other phenomena in psychology. For example, researchers have proposed that conflicts among the various brain modules can result in some psychopathologies (Grigsby & Schneiders, 1991). One researcher explains that nonconscious memories (Moscovitch, 1995) result from specialized brain modules that process consciously perceived events separately from those that are apprehended without awareness. As evidence for the existence of nonconscious processing in specialized brain modules, neuroscientists cite the process of facial recognition (Nachson, 1995). This hypothesis has a great deal of face validity because we all can recognize or distinguish among thousands of faces, but we cannot explain how we do it. Further, a condition known as **prosopagnosia** or face blindness can result from damage to these specialized modules. Prosopagnosia, which takes its name from the Greek words for "face" and "not knowing," is a condition in which a person loses the ability to distinguish one human face from another. Once this specialized ability is lost, no amount of conscious training can restore it.

VIGNETTE

Ian was determined to work his way out of the Brooklyn ghetto in which he had grown up. In the inner city, a student who took his schoolwork seriously was demeaned and ridiculed because studying hard was a sign of capitulation or allying with the enemy. But Ian had a singular ability to focus his attention on his studies—he resisted both the drugs and the other aspects of street life that had consumed the futures of most of his peers. Ian was strong-willed, laconic, and gifted with an ironic sense of humor that he used to slyly mock his detractors. He sometimes had to fight his opponents in the tough streets he had to traverse daily, but when he did fight, he was effective enough to be treated with caution by those who resented his resolve.

(Continued)

(Continued)

In short, Ian was an emotionally strong and single-minded young man who knew who he was and where he was going. His future became even brighter when he scored in the 96th percentile on the Scholastic Aptitude Test; he was virtually assured a scholarship to a first-tier university.

This promising future was suddenly clouded, however, by what seemed at first to be nothing more than a bad cold with a severe headache. Ian was in great pain from the pounding in his head. His grandmother, who had reared him, insisted that he go to the hospital emergency room. At first, he rejected her entreaties, but with the pain becoming unbearable, he finally agreed. After waiting nearly 4 hours, Ian was examined by a resident physician, who dismissed his symptoms as just a sinus infection. He was sent home with some pain medication and told to rest. Within 24 hours after leaving the hospital, however, Ian had an epileptic seizure and was brought back to the same hospital. He did indeed have a sinus infection—but one so severe as to have infiltrated the frontal lobes of his brain. Now his medical complaint was taken seriously, but far later than it should have been. Ian required emergency neurosurgery to relieve the pressure on his brain and remove a portion of his left frontal lobe that had been damaged by the infection.

Ian was able to leave the hospital after the surgery but continued to have seizures that could only be partially controlled by medication. But the epilepsy was not the worst of what he was facing; his personality had also been affected by the surgery. Ian, once strong and unflappable, now burst into tears when he had to deal with even slight difficulties; and even when all was going well, he was sullen and pessimistic. Reading and studying became far more difficult for him; although he was able to graduate from high school, his final grades were a big disappointment. Ian lost interest in attending college and had to be pushed to complete the forms required for him to receive disability payments. Sadly, Ian was no longer the Ian he had been before the infection. With the loss of part of his brain also went much of his will and previous personality. He was now a sullen and easily distracted young man who surprisingly failed to see the changes that had taken place in him. He reported to his doctor that he had just lost interest in the goals that used to motivate him.

The neurosurgeon who had operated on Ian had assured his grandmother that Ian would experience only slight changes in his functioning. The surgeon was wrong, however. Although the amount of tissue that had been removed was not great, it was sufficient to radically alter key aspects of Ian's personality.

Ian's case illustrates several noteworthy points about the relationship between the brain as an organ of the body and human personality. In some cases, there can be marked trauma to the brain with no personality change, while in others, small lesions can lead to radical differences in behavior and cognitive style. In both types of cases, however, the changes are rarely apparent to the affected individual.

Vignette Questions

1. What do the changes in Ian say to those who opine that personality is primarily a result of social learning?

2. Do you think that Ian will be able to recover his old personality with time?

3. Why or why not?

Reviewing the Concept of Repression

Perhaps the most important element of Freud's psychoanalytic theory is repression, the process in which unconscious censors hide or disguise memories, emotions, and impulses that threaten the conscious ego. Repression is part of Freud's earliest explanation of neurosis. He proposed that traumatic events are actively blocked from consciousness, resulting in a loss of mental energy and efficiency. The clinician's task is to help the patient uncover these repressed memories in the expectation that this recovery will unblock psychic energy and relieve the neurotic symptoms.

Recent research into the psychology of memory, however, seems to contradict Freud's premise. Despite the belief that is common even among psychologists, that memory is accurately and permanently recorded (Legault and Laurence, 2007; Loftus & Loftus, 1980) in the brain, various experiments show that memory can be readily manipulated. Roediger and McDermott (1995) presented lists of 12 words to college students and then asked them to recall the words. All the words in each list were semantically associated with a target word, known as a critical lure or a **lure word**, which was not presented. For example, one list contained words related to the word *chair*, such as *table*, *sit*, and *legs*, but the word *chair* itself was not presented. After listening to six such word lists, the students were asked to write down all the words they recalled. The critical lure, which had *not* appeared on the lists, was "remembered" 40% of the time. When the students were given a recognition test, they falsely believed that they recognized the lure words 84% of the time. In a second experiment using 15-word lists, Roediger and McDermott reported a false recall rate of 55% for the critical lures and a false recognition rate of 81%. This finding is known as the **Deese-Roediger-McDermott (DRM) paradigm**; it elegantly demonstrates how inaccurate human memory can be and how easily it can be manipulated.

Loftus and her coworkers found that people can be confident about memories that have been manipulated or changed by others. For example, people who are asked a leading question about an event will tend to have their recall of the event altered by the question. For example, if subjects are asked one of two questions after watching a film of an automobile collision, "How fast were the cars going when they smashed into each other?" or "How fast were the cars going when they hit each other?" they will tend to recall the speed of the vehicles as being higher when asked the first version of the question (Loftus, 1979a, 1979b). Loftus found that merely by changing the wording of a question, she could alter a person's recalled memories. This characteristic of human

memory is important in evaluating what has been called false memory syndrome, in which a susceptible person is induced to "remember" an event that never occurred, either by hypnosis or by constant rehearsal (repeated description) of the "event" by another person.

Ceci and coworkers found that children are particularly susceptible to having false memories implanted (Ceci, Huffman, Smith, & Loftus, 1994; Ceci, Loftus, Leichtman, & Bruck, 1994). In one study, 96 preschoolers between the ages of 3 and 6 years were administered seven interviews by the experimenters. During these interviews, the children were presented with both actual events from their lives and false events fabricated by the experimenters. The children were then asked to state whether the events really happened. The results indicated that the true events were almost always accurately recalled. Slightly more than one third of the children, however, maintained that the fictitious events actually happened. According to Ceci et al., the results suggest that children can readily be misled into believing that imaginary events actually took place.

Loftus (Loftus & Pickrell, 1995) obtained similar results in a study in which participants were given short narrative descriptions of childhood events and then prompted to remember those events. The participants were told that the descriptions were all provided by family members and were true. One event, however, was actually a pseudo-event in which the subjects were told about their having been lost for an extended period of time in a shopping mall at the age of 5 or 6. They were told that they had been quite disturbed about being lost but were rescued by an elderly person who reunited them with their family. Approximately 25% of the participants stated that they recalled this event, and some even expanded the story with confabulated details. The plasticity of memory has highly significant implications for Freud's premise that the recovery of repressed memories is critical to recovery from neurosis. If people can be persuaded to recall "events" that never took place, then it is difficult to see how they can be healed by uncovering memories that had been repressed.

Challenge to Psychosexual Stages

Freud is supported in his observation of many individuals with the characteristics that he identified with an oral personality (Kline & Storey, 1977, 1978). It is doubtful, however, whether dependent, passive, or orally focused people acquire those characteristics as the result of an early fixation (Kline & Storey, 1980); likewise, for anal personalities and those associated with fixations during other stages of development. Researchers examining Freud's theory have found weak or contradictory evidence for the existence of these stages and the personality types they supposedly form.

For example, Stone and Gottheil (1975) administered a 186-item questionnaire to hospital inpatients regarding behavioral traits associated with oral and anal personalities. The data were analyzed using factor analysis, which yielded results that were weakly consistent with Freud's oral and anal personalities. Stone found that the patients with proctologic (anal) problems had factor scores closer to those of patients with digestive ulcers than to those of patients with obsessive-compulsive disorders, which Freud would have associated with anal fixations. The obsessive-compulsives were actually more similar to passive-dependent patients. Most notably, Stone found that patients suffering proctologic and obsessive-compulsive disorders were the most dissimilar of all the groups studied.

Freud assumed that people with orally fixated personalities were excessively inclined to seek pleasure through oral stimulation. This premise was not validated in a study (Keith & Vandenberg,

1974) that compared obese and normal-weight subjects, using the Dynamic Personality Inventory, a test designed to measure Freudian constructs. The author failed to find any differences between the two groups. This result is mirrored in a small study (Castelnuovo-Tedesco, 1975) that compared 12 superobese (approximately double the standard body weight) individuals with those of normal weight. The superobese were found to be mildly depressed and somewhat passive-aggressive, but they did not fit any model of the oral personality.

Torgersen (1980) studied a Norwegian sample of 99 pairs of female and male twins between the ages of 20 and 70 with no notable psychopathology. He found that hysterical traits in the female participants and oral traits in the male participants seemed to have a genetic component. This finding is not compatible with fixation as the sole basis of pathology in so-called oral personalities.

There have been fewer scientific studies of the anal personality than of the oral personality. One such study (Gottheil & Stone, 1974) looked at relationships between anal and oral personality styles in five groups of patients: those with gastric ulcers; those with proctologic ailments; those with passive-dependent personality disorders, those with obsessive-compulsive disorders and a control group. The study employed a personality questionnaire. The author found that the patients diagnosed with passive-dependent and obsessive-compulsive personality disorders received slightly higher scores on the oral and anal trait scales, respectively. Although the study weakly confirmed Freudian theory, the small sample size and the methodology made it somewhat questionable. Another researcher (Fischer & Juni, 1982) administered the Kline Anality Scale to see whether participants scoring high on Freud's anal characteristics possessed associated personality characteristics. The study found that those with high scores on anality tended to have lower levels of self-disclosure, but it found no links to self-esteem, socioeconomic status, or more significantly, to negativism (Juni, 1982).

To test Freud's premise that early fixations predispose individuals to oral or anal personalities, researchers administered the Rorschach test to 54 participants and gave them an attitude survey. The Rorschach content analyses were assumed to show fixation scores. The author concluded that the prediction of oral fixations was confirmed for females only and anal fixations for males only. Another researcher (Lewis, 1994) failed to find an association between scores of anality using the Ai3Q, which is an instrument designed to measure obsessional personality traits and anal characteristics.

Taken as a whole, the research examining Freud's predictions of distinct character types resulting from psychosexual fixations appears to yield weak or contradictory results. In fact, it seems that some personality styles can be made to fit into the Freudian constructs of oral and anal personalities. There are certainly people who are passive, dependent, and ingratiating or placating. There are people who are orderly, overly concerned with details, and stingy. And there are people who either suppress their emotions or display them flamboyantly. Recent personality research, however, provides only weak support for Freud's precise formulations of fixations and personality styles.

The Oedipal Complex Examined

Freud proposed that all infants compete with the parent of the same sex for the affections of the parent of the opposite sex. Is this hypothesis true? To date, there is no definitive evidence that it is so, but there is a body of research showing that the so-called **Oedipus complex** is not universal. Bronislaw Malinowski (1884–1942), an anthropologist who studied

the Trobriand Islanders during World War I, concluded that they had a matriarchal society and experienced a very different Oedipal phase from the one that Freud described. Malinkowski observed that in the Trobriands, the father is not a figure of authority; a boy's maternal uncle is the male authority figure. Consequently, boys did not experience a paternal conflict nor the castration fears central to Freud's Oedipal crisis. The Trobriands exhibited no resulting pathologies (Malinkowski, 1929). Newman and Stoller (1971) concluded many years later that they found no evidence of Oedipal conflicts in transsexual men.

Lloyd Silverman and his colleagues (Silverman, 1978) designed experiments to provide evidence of repressed Oedipal conflicts. Silverman was testing the psychoanalytic principle of **symbiosis** (Silverman & Weinberger, 1985), which was suggested by Freud and elaborated by subsequent psychoanalysts. The concept of symbiosis holds that all people harbor strong unconscious desires to fuse with or create a state of oneness with another person, usually a parent or spouse. Psychoanalysts refer to these desires for fusion as symbiotic wishes to recreate the experience that people have with a good mother in early childhood. The technique that Silverman used in his many studies is called subliminal psychodynamic activation. It involved flashing phrases on a screen for approximately 4 milliseconds, too rapid to be consciously apprehended but long enough, according to Silverman, to stimulate unconscious thinking.

The phrases were either menacing or soothing. They included: "Beating Daddy is wrong," "Mommy and I are one," or "I am losing Mommy." In an early experiment using this paradigm (Silverman, Spiro, Weisberg, & Candell, 1969), Silverman evaluated the levels of pathology in 24 men suffering from schizophrenia. They were then presented with the subliminal phrase, "Mommy and I are one," combined with a visual image of a man and woman fused at the shoulders. They were then shown the subliminal phrase "People are thinking," along with a picture of two men who appeared to be thinking. Finally, they were presented with the subliminal phrase "Destroy mother," along with a picture of a man attacking a woman with a knife. Silverman found that those who were presented with the phrase "Mommy and I are one" showed some reduction of pathology, whereas those who were presented with "People are thinking" showed virtually no change. Presentation of the phrase "Destroy Mommy" tended to worsen their symptoms.

Silverman's general approach was used to test college students, obese women, stutterers, and a range of individuals with and without psychopathology. The results generally showed that that the subliminal presentation of phrases that stimulated symbiosis tended to be beneficial in such ways as improving academic performance (Bryant-Tuckett & Silverman, 1984), reducing weight (Silverman, Martin, Ungaro, & Mendelsohn, 1978), or diminishing the frequency of stuttering (Silverman, Bronstein, & Mendelsohn, 1976). Interestingly, Silverman found that these same phrases presented superliminally, that is, consciously, did not produce any beneficial effects. The subjects benefited only when the stimulus phrase was presented subliminally or unconsciously.

The major question is whether Silverman's studies have actually substantiated Freudian theory or called it into question. First, Silverman's work with schizophrenics is problematic because schizophrenia is regarded as an organic illness of the brain as of the early 2000s, not as a result of a conflict between the id and the ego resulting from poor bonding with parents or from Oedipal conflicts. In addition, the mitigation of schizophrenic symptoms is not uniquely supportive of psychoanalytic theory because the illness follows a roller-coaster pattern of remissions and acute episodes in some patients. Silverman did, however, present

evidence that information presented too rapidly to be consciously perceived can have beneficial effects in test subjects. These results are consistent with studies of cognition that demonstrate the existence of nonconscious processing of rapidly presented information (Lewicki, Hill, & Czyzewska, 1992). Thus the salient issue in relation to Freud's theory is whether people have an unconscious desire for symbiotic union with their mothers. This question was addressed by Watson (1975), who challenged the entire premise that subliminal activation is at all related to psychoanalytic theory.

Watson questioned the validity of the projective procedures used by Silverman as outcome measures and pointed out the difficulty of determining a direct relationship between Silverman's results and psychoanalytic constructs. This conceptual challenge has been extended by researchers who state that benign statements like those that Silverman presented to his subjects do no more than temporarily elevate the participant's mood (Sohlberg, Billinghurst, & Nylén, 1998). Others have simply failed to replicate Silverman's paradigm (Balay & Shevrin, 1988; Heilbrun, 1980; Malik, Apel, Nelham, Rutkowski, & Ladd, 1997; Oliver & Burkham, 1982). These researchers have performed similar experiments with populations comparable to those tested by Silverman and found no improvements after subliminal activation. Their studies have raised doubts about the significance of Silverman's findings. What is clear is that Silverman was able to demonstrate that with sufficient creativity, even the more abstract principles of psychoanalysis can be subjected to scientific testing.

▣ CHAPTER SUMMARY

Freud's influence in personality theory was explored by detailing how he linked developmental psychosexual theory to derived personality types. He proposed that life (libidinal) energy fixations—at any stage—will yield a personality type derived from the conflicts that need to be resolved at that stage. According to Freud, the developmental juncture that is most critical to personality is the Oedipal period. Here, the individual who adequately matures through this personal epoch will be endowed with a more mature and productive personality.

The clinical applications of psychoanalysis were also explored. Psychoanalytic therapy typically requires nondirective therapists whose neutral posture allows them to serve as a representation of significant individuals in the client's past. Consequently, the client will unconsciously project unto the psychoanalyst the unresolved or fixated emotions that are the basis of neurosis. The process of analysis typically involves several stages and faces emergent barriers such as anxiety and resistance, which require interpretations by the psychoanalyst to allow for successful completion of analysis.

The controversies of Freud's personality and clinical theories were enumerated. Most of these are predicated on the absence of convincing research evidence for either the clinical approach or its underlying psychoanalytic explanation of personality.

Recent research into the cognitive unconscious was presented as a contrast to psychoanalytic views of unconscious mentation. The current view of the cognitive unconscious sees the mind as automatically processing information outside of awareness as a fundamental and normal aspect of the human brain. Nonconscious cognition appears to serve the adaptive role of supplementing the brain's limited capacity when consciously processing information.

回 NOTE

1. Split-brain patients are people who have received surgery that severed their corpora callosa (the bundle of fibers connecting the right and left hemispheres of the brain) in order to treat seizure disorders. This procedure leaves the two hemispheres with minimal means of communication, virtually creating two separate brains.