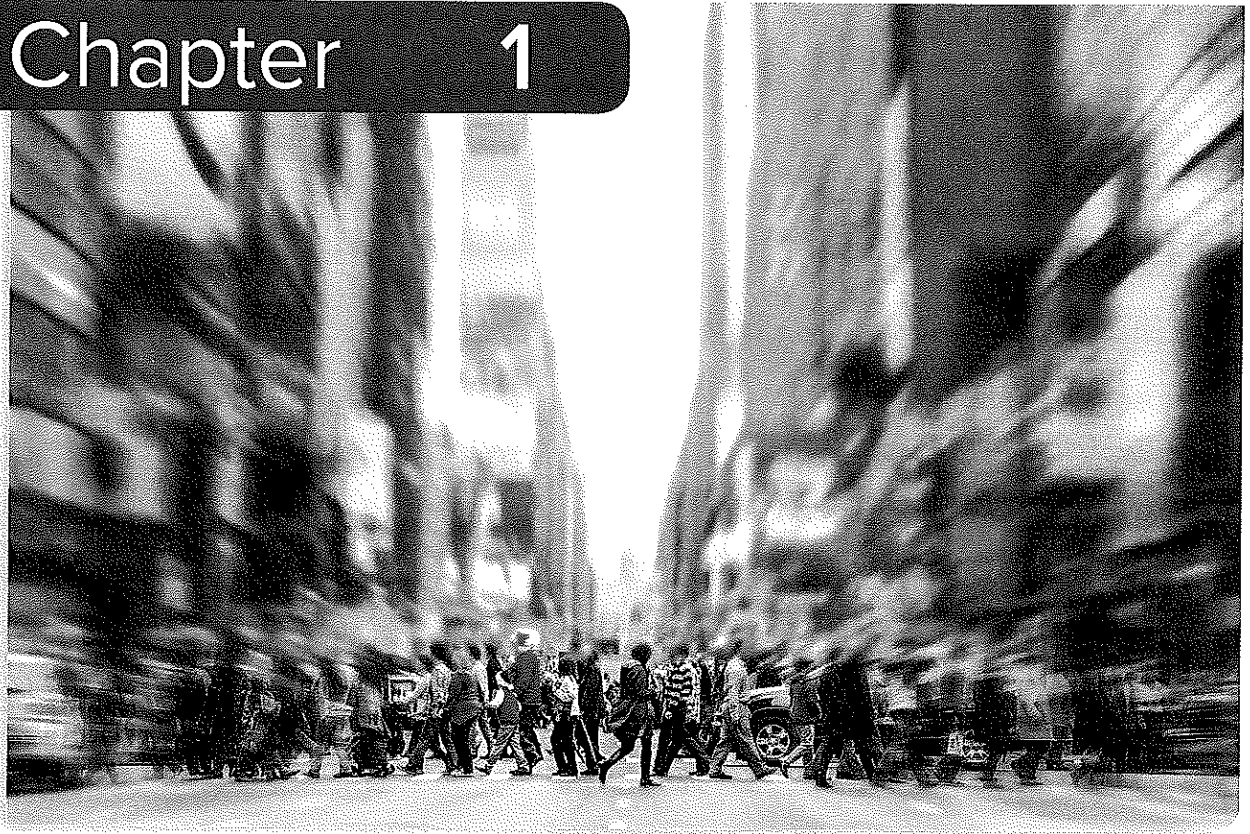


Abnormal Psychology

Chapter 1



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Looking at Abnormality

CHAPTER OUTLINE

Abnormality Along the Continuum

Extraordinary People

Defining Abnormality

Shades of Gray

Historical Perspectives on Abnormality

The Emergence of Modern Perspectives

Modern Mental Health Care

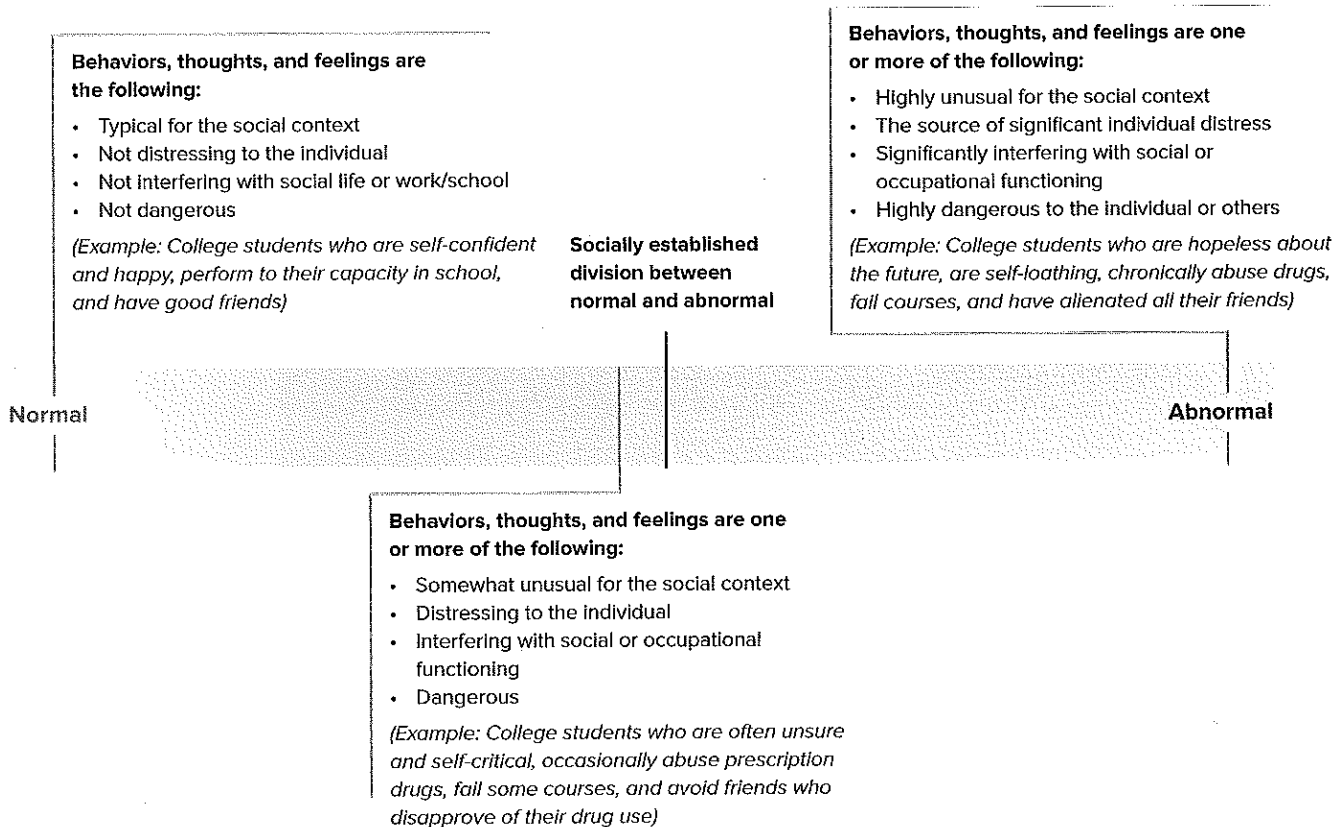
Chapter Integration

Shades of Gray Discussion

Chapter Summary

Key Terms

Abnormality Along the Continuum



As humans, we think, we feel, we behave. Most of the time, our thoughts, feelings, and behaviors help us function in everyday life and are in the service of important goals or values we hold. Sometimes, however, we all have thoughts that upset us, experience feelings we'd rather not have, and act in ways that are self-defeating or detrimental to others. We may find ourselves in situations in which we can't think, feel or behave as others would—for example, we can't let go of a failed relationship. We may become upset over a situation that others don't find distressing, such as getting an average grade on an exam. Our thoughts, feelings, or behaviors may be interfering with our functioning in everyday life, for example, if we become afraid to walk alone after being mugged. Or we may be acting in ways that are dangerous to ourselves or others, such as driving a car when intoxicated.

Problems in thoughts, feelings, and behavior vary from normal to abnormal, as illustrated in the diagram above. We'd

like to think there is a clear dividing line between normal variations in thoughts, emotions, and behaviors and what we would label "abnormal." Once an individual's behaviors or feelings crossed that line, we would be justified in saying that there is something wrong with that person or that he or she has a disorder. As we discuss in this chapter and throughout this book, however, there is increasing evidence that no such dividing line exists, perhaps for any of the mental health problems that are currently recognized. We make decisions about where to draw the line that indicates a sufficient amount of abnormality to warrant a diagnosis or treatment. You will see that this **continuum model of abnormality** applies to all the disorders we discuss in this book. In this chapter, we discuss some of the factors that influence how thoughts, emotions, and behaviors are labeled abnormal.

Extraordinary People

My illness began slowly, gradually, when I was between the ages of 15 and 17. During that time reality became distant and I began to wander around in a sort of haze, foreshadowing the delusional world that was to come later. I also began to have visual hallucinations in which people changed into different characters, the change indicating to me their moral value. For example, the mother of a good friend always changed into a witch, and I believed this to be indicative of her evil nature. Another type of visual hallucination I had at this time is exemplified by an occurrence during a family trip through Utah: The cliffs

Source: Anonymous, 1992.

along the side of the road took on a human appearance, and I perceived them as women, bedraggled and weeping. At the time I didn't know what to make of these changes in my perceptions. On the one hand, I thought they came as a gift from God, but on the other hand, I feared that something was dreadfully wrong. However, I didn't tell anyone what was happening; I was afraid of being called insane. I also feared, perhaps incredibly, that someone would take it lightly and tell me nothing was wrong, that I was just having a rough adolescence, which was what I was telling myself.

The study of abnormal psychology is the study of people, like the young woman in the Extraordinary People feature, who suffer mental, emotional, and often physical pain, often referred to as **psychopathology**. Sometimes the experiences of people with psychopathology are as unusual as those this young woman describes. Sometimes, however, people with psychopathology have experiences that are familiar to many of us but more extreme, as when everyday sadness transforms into life altering depression.

In this book, we explore the lives of people with troubling psychological symptoms to understand how they think, what they feel, and how they behave. We investigate what is known about the causes of these symptoms and the appropriate treatments for them. The purpose of this book is not only to provide you with information, facts and figures, theories, and research but also to help you understand the experience of people with psychological symptoms. The good news is that, thanks to an explosion of research in the past few decades, effective biological and psychological treatments are available for many of the mental health problems we discuss.

DEFINING ABNORMALITY

In popular culture, there are a lot of words for people and behaviors that seem abnormal: around the bend, bananas, barmy, batty, berserk, bonkers, cracked, crazy, cuckoo, daft, delirious, demented, deranged, dingy, erratic, flaky, flipped out, freaked out, fruity, insane, kooky, lunatic, mad, mad as a March hare, mad as a hatter, maniacal, mental, moonstruck, nuts, nutty, nutty as a fruitcake, of unsound mind, out of one's mind, out of one's tree, out to lunch, potty, psycho, screw loose, screwball, screwy,

silly, touched, unbalanced, unglued, unhinged, unzipped, wacky. People talk as if they have an intuitive sense of what abnormal behavior is. Let's explore some of the ways abnormality has been defined.

Mental Illness

A common belief is that behaviors, thoughts, or feelings can be viewed as pathological or abnormal if they are symptoms of a *mental illness*. This implies that a disease process, much like hypertension or diabetes, is present. For example, when many people say that an individual "has schizophrenia" (which is characterized by unreal perceptions and severely irrational thinking), they imply that he or she has a disease that should show up on some sort of biological test, just as hypertension shows up when a person's blood pressure is taken.

To date, however, no biological test is available to diagnose any of the types of abnormality we discuss in this book (Hyman, 2010). This is not just because we do not yet have the right biological tests. Modern conceptualizations of mental disorders view them not as singular diseases with a common pathology that can be identified in all people with the disorder. Rather, mental health experts view mental disorders as collections of problems in thinking or cognition, in emotional responding or regulation, and in social behavior (Hyman, 2010; Insel et al., 2010; Sanislow et al., 2011). Thus, for example, a person diagnosed with schizophrenia has a collection of problems in rational thinking and in responding emotionally and behaviorally in everyday life, and it is this collection of problems that we label schizophrenia. It is still possible, and in the case of schizophrenia likely, that biological factors are associated with these problems in thinking, feeling,

and behaving. But it is unlikely that a singular disease process underlies the symptoms we call schizophrenia.

Cultural Norms

Consider these behaviors:

1. A man driving a nail through his hand
2. A woman refusing to eat for several days
3. A man barking like a dog and crawling on the floor on his hands and knees
4. A woman building a shrine to her dead husband in her living room and leaving food and gifts for him at the altar

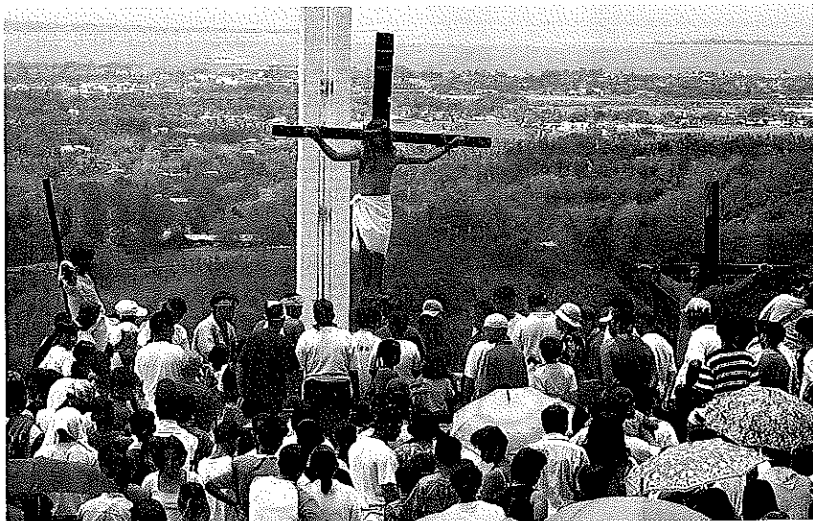
Do you think these behaviors are abnormal? You may reply, "It depends." Several of these behaviors are accepted in certain circumstances. In many religious traditions, for example, refusing to eat for a period of time, or fasting, is a common ritual of cleansing and penitence. You might expect that some of the other behaviors listed, such as driving a nail through one's hand or barking like a dog, are abnormal in all circumstances, yet even these behaviors are accepted in certain situations. In Mexico, some Christians have themselves nailed to crosses on Good Friday to commemorate the crucifixion of Jesus. Among the Yoruba of Africa, traditional healers act like dogs during healing rituals (Murphy, 1976). Thus, the context, or circumstances surrounding a behavior, influences whether the behavior is viewed as abnormal.

Cultural norms play a large role in defining abnormality. A good example is the behaviors people are expected to display when someone they love dies.

In cultures dominated by Shinto and Buddhist religions, it is customary to build altars to honor dead loved ones, to offer them food and gifts, and to speak with them as if they were in the room (Stroebe, Gergen, Gergen, & Stroebe, 1992). In cultures dominated by Christian and Jewish religions, such practices would potentially be considered quite abnormal.

Cultures have strong norms for what is considered acceptable behavior for men versus women, and these gender-role expectations also influence the labeling of behaviors as normal or abnormal (Addis, 2008). In many cultures, men who display sadness or anxiety or who choose to stay home to raise their children while their wives work are at risk of being labeled abnormal, while women who are aggressive or who don't want to have children are at risk of being labeled abnormal.

Cultural relativism is the view that there are no universal standards or rules for labeling a behavior abnormal; instead, behaviors can be labeled abnormal only relative to cultural norms (Snowden & Yamada, 2005). The advantage of this perspective is that it honors the norms and traditions of different cultures, rather than imposing the standards of one culture on judgments of abnormality. Yet opponents of cultural relativism argue that dangers arise when cultural norms are allowed to dictate what is normal or abnormal. In particular, psychiatrist Thomas Szasz (1971) noted that, throughout history, societies have labeled individuals and groups abnormal in order to justify controlling or silencing them. Hitler branded Jews abnormal and used this label as one justification for the Holocaust. The former Soviet Union sometimes branded political dissidents mentally ill and confined them in mental hospitals. When the slave



In Mexico, some Christians have themselves nailed to a cross to commemorate the crucifixion of Jesus. © AP Photo/Aaron Favila

trade was active in the United States, slaves who tried to escape their masters could be diagnosed with a mental disease that was said to cause them to desire freedom; the prescribed treatment for this disease was whipping and hard labor (Cartwright, 1851, quoted in Szasz, 1971).

Most mental health professionals these days do not hold an extreme relativist view on abnormality, recognizing the dangers of basing definitions of abnormality solely on cultural norms. Yet even those who reject an extreme cultural-relativist position recognize that culture and gender have a number of influences on the expression of abnormal behaviors and on the way those behaviors are treated. First, culture and gender can influence the ways people express symptoms. People who lose touch with reality often believe that they have divine powers, but whether they believe they are Jesus or Mohammed depends on their religious background.

Second, culture and gender can influence people's willingness to admit to certain types of behaviors or feelings (Snowden & Yamada, 2005). People in Eskimo and Tahitian cultures may be reluctant to admit to feeling anger because of strong cultural norms against the expression of anger. The Kaluli of New Guinea and the Yanomamo of Brazil, however, value the expression of anger and have elaborate and complex rituals for expressing it (Jenkins, Kleinman, & Good, 1991).

Third, culture and gender can influence the types of treatments deemed acceptable or helpful for

people exhibiting abnormal behaviors. Some cultures may view drug therapies for psychopathology as most appropriate, while others may be more willing to accept psychotherapy (Snowden & Yamada, 2005). Throughout this book, we will explore these influences of culture and gender on behaviors labeled abnormal.

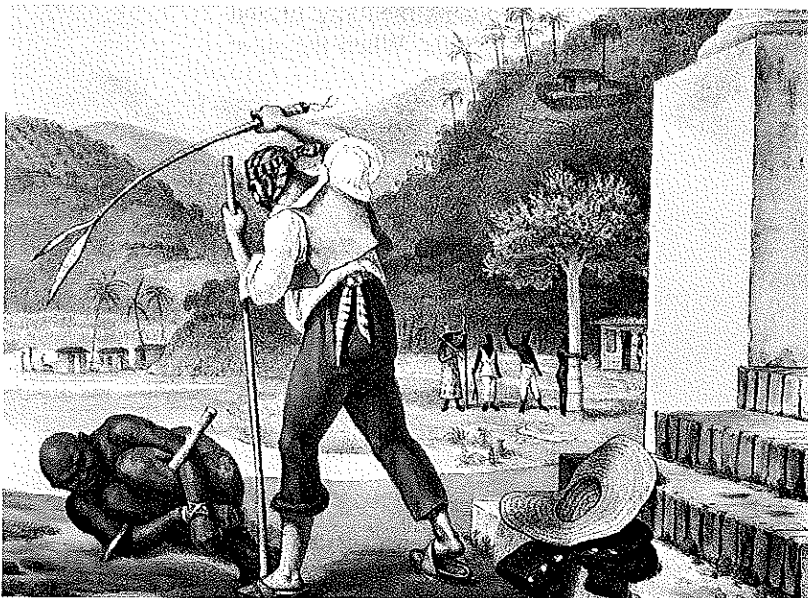
The Four Ds of Abnormality

If we do not want to define abnormality only on the basis of cultural norms, and if we cannot define abnormality as the presence of a mental illness because no singular, identifiable disease process underlies most psychological problems, how do we define abnormality? Modern judgments of abnormality are influenced by the interplay of four dimensions, often called "the four Ds": dysfunction, distress, deviance, and dangerousness. Behaviors, thoughts, and feelings are *dysfunctional* when they interfere with the person's ability to function in daily life, to hold a job, or to form close relationships. The more dysfunctional behaviors and feelings are, the more likely they are to be considered abnormal by mental health professionals. For example, thinking that is out of touch with reality (for example, believing you are Satan and should be punished) makes it difficult to function in everyday life and so is considered dysfunctional.

Behaviors and feelings that cause *distress* to the individual or to others around him or her are also likely to be considered abnormal. Many of the problems we discuss in this book cause individuals tremendous emotional and even physical pain; in other cases, the person diagnosed with a disorder is not in distress but causes others distress, for example, through chronic lying, stealing, or violence.

Highly *deviant* behaviors, such as hearing voices when no one else is around, lead to judgments of abnormality. What is deviant is influenced by cultural norms, of course. Finally, some behaviors and feelings are of potential harm to the individual, such as suicidal gestures, or to others, such as excessive aggression. Such *dangerous* behaviors and feelings are often seen as abnormal.

The four Ds together make up mental health professionals' definition of behaviors or feelings as abnormal or *maladaptive*. The experiences of the woman described in Extraordinary People presented at the beginning of this chapter would be labeled abnormal based on these criteria because the symptoms interfere with her daily functioning, cause her suffering, are highly unusual, and are potentially dangerous to her.



When the slave trade was active, slaves who tried to escape were sometimes labeled as having mental illness and were beaten to "cure" them. © Jean Baptiste Debret/Getty Images

SHADES OF GRAY

Consider the following descriptions of two students.

In the year between her eighteenth and nineteenth birthdays, Jennifer, who is 5'6", dropped from a weight of 125 pounds to 105 pounds. The weight loss began when Jennifer had an extended case of the flu and lost 10 pounds. Friends complimented her on being thinner, and Jennifer decided to lose more weight. She cut her intake of food to about 1,200 calories, avoiding carbs as much as possible, and began running a few miles every day. Sometimes she is so hungry she has trouble concentrating on her schoolwork. Jennifer values her new lean look so much, however, that she is terrified of gaining the weight back. Indeed, she'd like to lose a few more pounds so she could fit into a size 2.

Mark is what you might call a "heavy drinker." Although he is only 18, he has ready access to alcohol, and most nights he typically drinks at least five or six beers. He rarely feels drunk after that much alcohol, though, so he might also throw back a few shots, especially when he is out partying on Saturday nights. He's gotten caught a few times and received tickets for underage drinking, but he proudly displays them on his dorm wall as badges of honor. Mark's grades are not what they could be, but he finds his classes boring and has a hard time doing the work.

Do you find Jennifer's or Mark's behaviors abnormal? How would you rate their level of dysfunction, distress, deviance, and danger? (Discussion appears at the end of this chapter.)

We are still left making subjective judgments, however. How much emotional pain or harm must a person be suffering? How much should the behaviors be interfering with daily functioning? We return to the continuum model to acknowledge that each of the four Ds lies along its own continuum. A person's behaviors and feelings can be more or less dysfunctional, distressing, deviant, or dangerous. Thus, there is no sharp line between what is normal and what is abnormal.

HISTORICAL PERSPECTIVES ON ABNORMALITY

Across history, three types of theories have been used to explain abnormal behavior. The **biological theories** have viewed abnormal behavior as similar to physical diseases, caused by the breakdown of systems in the body. The appropriate cure is the restoration of bodily health. The **supernatural theories** have viewed abnormal behavior as a result of divine intervention, curses, demonic possession, and personal sin. To rid the person of the perceived affliction, religious rituals, exorcisms, confessions, and atonement have been prescribed. The **psychological theories** have viewed abnormal behavior as a result of traumas, such as bereavement, or of chronic stress. According to these theories, rest, relaxation, a change of environment, and certain herbal medicines are sometimes helpful. These three types of theories have influenced how people acting abnormally have been regarded in the society. A person thought to be abnormal because he or she was a sinner, for example, would be regarded differently from a person thought to be abnormal because of a disease.

Ancient Theories

Our understanding of prehistoric people's conceptions of abnormality is based on inferences from archaeological artifacts—fragments of bones, tools, artwork, and so on—as well as from ancient writings about abnormal behavior. It seems that humans have always viewed abnormality as something needing special explanation.

Driving Away Evil Spirits

Historians speculate that even prehistoric people had a concept of insanity, probably one rooted in supernatural beliefs (Selling, 1940). A person who acted oddly was suspected of being possessed by evil spirits. The typical treatment for abnormality, according to supernatural theories, was exorcism—driving the evil spirits from the body of the suffering person. Shamans, or healers, would recite prayers or incantations, try to talk the spirits out of the body, or make the body an uncomfortable place for the spirits to reside—often through extreme measures such as starving or beating the person. At other times, the person thought to be possessed by evil spirits would simply be killed.

One treatment for abnormality during the Stone Age and well into the Middle Ages may have been to drill holes in the skull of a person displaying abnormal behavior to allow the spirits to depart (Feldman & Goodrich, 2001). Archaeologists have found skulls dating back to a half-million years ago in which sections of the skull have been drilled or cut away. The tool used for this drilling is called a trephine, and the operation is called **trephination**. Some historians believe that people who were



Some scholars believe that holes found in ancient skulls are from trephination, a crude form of surgery possibly performed on people acting abnormally. © Prisma/ UIG via Getty Images

seeing or hearing things that were not real and people who were chronically sad were subjected to this form of brain surgery (Feldman & Goodrich, 2001). Presumably, if the person survived this surgery, the evil spirits would have been released and the person's abnormal behavior would decline. However, we cannot know with certainty that trephination was used to drive away evil spirits. Other historians suggest that it was used primarily for the removal of blood clots caused by stone weapons during warfare and for other medical purposes (Maher & Maher, 1985).

Ancient China: Balancing Yin and Yang

Some of the earliest written sources on abnormality are ancient Chinese medical texts (Tseng, 1973). *Nei Ching* (Classic of Internal Medicine) was probably written around 2674 BCE by Huang Ti, the legendary third emperor of China.

Ancient Chinese medicine was based on the concept of yin and yang. The human body was said to contain a positive force (yang) and a negative force (yin), which confronted and complemented each other. If the two forces were in balance, the individual was healthy. If not, illness, including insanity,

could result. For example, excited insanity was considered the result of an excessive positive force:

The person suffering from excited insanity initially feels sad, eating and sleeping less; he then becomes grandiose, feeling that he is very smart and noble, talking and scolding day and night, singing, behaving strangely, seeing strange things, hearing strange voices, believing that he can see the devil or gods, etc. As treatment for such an excited condition withholding food was suggested, since food was considered to be the source of positive force and the patient was thought to be in need of a decrease in such force. (Tseng, 1973, p. 570)

Chinese medical philosophy also held that human emotions were controlled by internal organs. When the "vital air" was flowing on one of these organs, an individual experienced a particular emotion. For example, when air flowed on the heart, a person felt joy; when on the lungs, sorrow; when on the liver, anger; when on the spleen, worry; and when on the kidney, fear. This theory encouraged people to live in an orderly and harmonious way so as to maintain the proper movement of vital air.

Although the perspective on psychological symptoms represented by ancient texts was largely a biological one, the rise of Taoism and Buddhism during the Chin and T'ang dynasties (420–618 CE) led to some religious interpretations of abnormal behavior. Evil winds and ghosts were blamed for bewitching people and for inciting people's erratic emotional displays and uncontrolled behavior. Religious theories of abnormality declined in China after this period (Tseng, 1973).

Ancient Egypt, Greece, and Rome: Biological Theories Dominate

Other ancient writings on abnormal behavior are found in the papyri of Egypt and Mesopotamia (Veith, 1965). The oldest of these, a document known as the Kahun Papyrus after the ancient Egyptian city in which it was found, dates from about 1900 BCE. This document lists a number of disorders, each followed by a physician's judgment of the cause of the disorder and the appropriate treatment.

Several of the disorders apparently left people with unexplainable aches and pains, sadness or distress, and apathy about life, such as "a woman who loves bed; she does not rise and she does not shake it" (Veith, 1965, p. 3). These disorders were said to occur only in women and were attributed to a "wandering uterus." The Egyptians believed that the uterus could become dislodged and wander throughout a woman's body, interfering with her other organs. Later, the Greeks, holding to the same theory of anatomy,



Some of the earliest writings on mental disorders are from ancient Chinese texts. This illustration shows a healer at work.
© Mary Evans Picture Library/The Image Works

named this disorder *hysteria* (from the Greek word *hystera*, which means “uterus”). These days, the term hysteria is used to refer to physiological symptoms that probably are the result of psychological processes. In the Egyptian papyri, the prescribed treatment for this disorder involved the use of strong-smelling substances to drive the uterus back to its proper place.

Beginning with Homer, the Greeks wrote frequently of people acting abnormally (Wallace & Gach, 2008). The physician Hippocrates (460–377 BCE) described a case of a common phobia: A man could not walk alongside a cliff, pass over a bridge, or jump over even a shallow ditch without feeling unable to control his limbs and having his vision impaired.

Most Greeks and Romans saw abnormal behavior as an affliction from the gods. Those afflicted retreated to temples honoring the god Aesculapius, where priests held healing ceremonies. Plato (423–347 BCE) and Socrates (469–399 BCE) argued that some forms of abnormal behavior were divine and could be the source of great literary and prophetic gifts.

For the most part, however, Greek physicians rejected supernatural explanations of abnormal behavior (Wallace & Gach, 2008). Hippocrates, often regarded as the father of medicine, argued that abnormal behavior was like other diseases of the body. According to Hippocrates, the body was composed of four basic humors: blood, phlegm, yellow bile, and black bile. All diseases, including abnormal behavior, were caused by imbalances in the body’s essential humors. Based on careful observation of his many patients, which included listening to their dreams, Hippocrates classified abnormal behavior into four categories: epilepsy, mania, melancholia, and brain fever.

The treatments prescribed by the Greek physicians were intended to restore the balance of the four humors. Sometimes these treatments were physiological and intrusive, for example, bleeding a patient to treat disorders thought to result from an excess of blood. Other treatments consisted of rest, relaxation, a change of climate or scenery, a change of diet, or living a temperate life. Some nonmedical treatments prescribed by these physicians sound remarkably like those prescribed by modern psychotherapists. Hippocrates, for example, believed that removing a patient from a difficult family could help restore mental health. Plato argued that insanity arose when the rational mind was overcome by impulse, passion, or appetite. Sanity could be regained through a discussion with the individual designed to restore rational control over emotions (Maher & Maher, 1985).

Among the Greeks of Hippocrates’ and Plato’s time, the relatives of people considered insane were encouraged to confine their afflicted family members

to the home. The state claimed no responsibility for insane people; it provided no asylums or institutions, other than the religious temples, to house and care for them. The state could, however, take rights away from people declared insane. Relatives could bring suit against those they considered insane, and the state could award the property of insane people to their relatives. People declared insane could not marry or acquire or dispose of their own property. Poor people who were considered insane were simply left to roam the streets if they were not violent. If they were violent, they were locked away. The general public greatly feared insanity of any form, and people thought to be insane often were shunned or even stoned (Maher & Maher, 1985).

Medieval Views

The Middle Ages (around 400–1400 CE) are often described as a time of backward thinking dominated by an obsession with supernatural forces, yet even within Europe supernatural theories of abnormal behavior did not dominate until the late Middle Ages, between the eleventh and fifteenth centuries (Neugebauer, 1979). Prior to the eleventh century, witches and witchcraft were accepted as real but were considered mere nuisances, overrated by superstitious people. Severe emotional shock and physical illness or injury most often were seen as the causes of bizarre behaviors. For example, English court records attributed mental health problems to factors such as a “blow received on the head,” explained that symptoms were “induced by fear of his father,” and noted that “he has lost his reason owing to a long and incurable infirmity” (Neugebauer, 1979, p. 481). While laypeople probably did believe in demons and curses as causes of abnormal behavior, there is strong evidence that physicians and government officials attributed abnormal behavior to physical causes or traumas.

Witchcraft

Beginning in the eleventh century, the power of the Catholic Church in Europe was threatened by the breakdown of feudalism and by rebellions. The Church interpreted these threats in terms of heresy and Satanism. The Inquisition was established originally to rid the Earth of religious heretics, but eventually those practicing witchcraft or Satanism also became the focus of hunts. The witch hunts continued long after the Reformation, perhaps reaching their height during the fifteenth to seventeenth centuries—the period known as the Renaissance (Mora, 2008).

Some psychiatric historians have argued that persons accused of witchcraft must have been mentally ill (Veith, 1965; Zilboorg & Henry, 1941). Accused



Some people burned at the stake as witches may have had mental disorders that caused them to act abnormally. © Bettmann/Corbis

witches sometimes confessed to speaking with the devil, flying on the backs of animals, or engaging in other unusual behaviors. Such people may have been experiencing delusions (false beliefs) or hallucinations (unreal perceptual experiences), which are signs of some psychological disorders. However, confessions of such experiences may have been extracted through torture or in exchange for a stay of execution (Spanos, 1978).

In 1563, Johann Weyer published *The Deception of Dreams*, in which he argued that those accused of being witches were suffering from melancholy (depression) and senility. The Church banned Weyer's writings. Twenty years later, Reginald Scot, in his *Discovery of Witchcraft* (1584), supported Weyer's beliefs: "These women are but diseased wretches suffering from melancholy, and their words, actions, reasoning, and gestures show that sickness has affected their brains and impaired their powers of judgment" (Castiglioni, 1946, p. 253). Again, the Church—joined this time by the state—refuted the arguments and banned Scot's writings.

As is often the case, change came from within. In the sixteenth century, Teresa of Avila, a Spanish nun who was later canonized, explained that the mass hysteria that had broken out among a group of nuns was not the work of the devil but was the result of infirmities or sickness. She argued that these nuns were *comas enfermas*, or "as if sick." She sought out natural causes for the nuns' strange behaviors and concluded that they were due to melancholy, a weak imagination, or drowsiness and sleepiness (Sarbin & Juhasz, 1967).

The culture so completely accepted the existence of witches and witchcraft that some perfectly sane people may have self-identified as witches. In addition, most writings of medieval and Renaissance times, as well as writings from the witch hunt period in Salem, Massachusetts, clearly distinguish between people who were mad and people who were witches. The distinction between madness and witchcraft continues to this day in cultures that believe in witchcraft.

Psychic Epidemics

Psychic epidemics are defined as a phenomenon in which large numbers of people engage in unusual behaviors that appear to have a psychological origin. During the Middle Ages, reports of dance frenzies or manias were frequent. A monk, Peter of Herental, described a rash of dance frenzies that broke out over a 4-month period in 1374 in Germany:

Both men and women were abused by the devil to such a degree that they danced in their homes, in the churches and in the streets, holding each other's hands and leaping in the air. While they danced they called out the names of demons, such as Friskes and others, but they were unaware of this nor did they pay attention to modesty even though people watched them. At the end of the dance, they felt such pains in the chest, that if their friends did not tie linen clothes tightly around their waists, they cried out like madmen that they were dying. (cited in Rosen, 1968, pp. 196–197)

Other instances of dance frenzy were reported in 1428 during the feast of Saint Vitus, at Schaffhausen, at which a monk danced himself to death. In 1518, a large epidemic of uncontrolled dance frenzy occurred at the chapel of Saint Vitus at Hohlenstein, near Zabern. According to one account, more than 400 people danced during the 4 weeks the frenzy lasted. Some writers of the time began to call the frenzied dancing Saint Vitus' dance.

A similar phenomenon, *tarantism*, was noted in Italy as early as the fourteenth century and became prominent in the seventeenth century. People suddenly developed an acute pain, which they attributed to the bite of a tarantula. They jumped around and danced wildly in the streets, tearing at their clothes and beating each other with whips. Some people dug holes in the earth and rolled on the ground; others howled and made obscene gestures. At the time, many people interpreted dance frenzies and tarantism as the results of possession by the devil. The behaviors may have been the remnants of ancient rituals

performed by people worshipping the Greek god Dionysus.

We see episodes of psychic epidemics in modern times. On February 8, 1991, a number of students and teachers in a high school in Rhode Island thought they smelled noxious fumes coming from the ventilation system. The first person to detect these fumes, a 14-year-old girl, fell to the floor, crying and saying that her stomach hurt and her eyes stung. Other students and the teacher in that room then began to experience symptoms. They were moved into the hallway with a great deal of commotion. Soon students and teachers from adjacent rooms, who could see clearly into the hallway, began to experience symptoms. Eventually, 21 people (17 students and 4 teachers) were admitted to the local hospital emergency room. All were hyperventilating, and most complained of dizziness, headache, and nausea. Although some initially showed symptoms of mild carbon monoxide intoxication in blood tests, no evidence of toxic gas in the school could be found. The physicians treating the children and teachers concluded that the outbreak was a case of mass hysteria prompted by the fear of chemical warfare during the Persian Gulf War (Rockney & Lemke, 1992).

Psychic epidemics are no longer viewed as the result of spirit possession or the bite of a tarantula. Rather, psychologists attempt to understand them through research from social psychology on the influence of others on individuals' self-perceptions. The social context can affect even our perceptions of our own bodies, as we will see when we discuss people's differing reactions to psychoactive substances such as marijuana (see the chapter, "Substance Use and Gambling Disorders") and people's interpretations of their physical sensations (see the chapter, "Somatic Symptom and Dissociative Disorders").

The Spread of Asylums

As early as the twelfth century, many towns in Europe took some responsibility for housing and caring for people considered mentally ill (Kroll, 1973). Remarkable among these towns was Gheel, Belgium, where townspeople regularly took into their homes the mentally ill visiting the shrine of Saint Dymphna for cures.

In about the eleventh or twelfth century, general hospitals began to include special rooms or facilities for people exhibiting abnormal behavior. The mentally ill were little more than inmates in these early hospitals, housed against their will,

often in extremely harsh conditions. One of the most famous of these hospitals was the Hospital of Saint Mary of Bethlehem, in London, which officially became a mental hospital in 1547. This hospital, nicknamed Bedlam, was famous for its deplorable conditions. At Bedlam and other mental hospitals established in Europe in the sixteenth, seventeenth, and eighteenth centuries, patients were exhibited to the public for a fee. They lived in filth and confinement, often chained to the wall or locked inside small boxes. The following description of the treatment of patients in La Bicêtre Hospital, an asylum for male patients in Paris, provides an example of typical care:

The patients were ordinarily shackled to the walls of their dark, unlighted cells by iron collars which held them flat against the wall and permitted little movement. Ofttimes there were also iron hoops around the waists of the patients and both their hands and feet were chained. Although these chains usually permitted enough movement that the patients could feed themselves out of bowls, they often kept them from being able to lie down at night. Since little was known about dietetics, and the patients were presumed to be animals anyway, little attention was paid to whether they were adequately fed or whether the food was good or bad. The cells were furnished only with straw and were never swept or cleaned; the patient remained in the midst of all the accumulated ordure. No one visited the cells except at feeding time, no provision was made for warmth, and even the most elementary gestures of humanity were lacking. (Adapted from Selling, 1940, pp. 54-55)

The laws regarding the confinement of the mentally ill in Europe and the United States were concerned with the protection of the public and the ill person's relatives (Busfield, 1986; Scull, 1993). For example, Dalton's 1618 edition of *Common Law* states that "it is lawful for the parents, kinsmen or other friends of a man that is mad, or frantic . . . to take him and put him into a house, to bind or chain him, and to beat him with rods, and to do any other forcible act to reclaim him, or to keep him so he shall do no hurt" (Allderidge, 1979).

The first Act for Regulating Madhouses in England was passed in 1774, with the intention of cleaning up the deplorable conditions in hospitals and madhouses and protecting people from being unjustly jailed for insanity. This act provided for the licensing and inspection of madhouses and required that a physician, a surgeon, or an apothecary sign a certificate before a patient could be admitted. The act's



Bedlam—the Hospital of Saint Mary of Bethlehem in London—was famous for the chaotic and deplorable conditions in which people with mental disorders were kept. © US National Library of Medicine/Science Photo Library/Science Source

provisions applied only to paying patients in private madhouses, however, and not to the poor people confined to workhouses.

These asylums typically were established and run by people who thought that abnormal behaviors were medical illnesses. For example, Benjamin Rush (1745–1813), one of the founders of American psychiatry, believed that abnormal behavior was caused by excessive blood in the brain and prescribed bleeding the patient, or drawing huge amounts of blood from the body. Thus, although the supernatural theories of the Middle Ages have often been decried as leading to brutal treatment of people with mental illnesses, the medical theories of those times and of the next couple of centuries did not always lead to better treatment.

Moral Treatment in the Eighteenth and Nineteenth Centuries

The eighteenth and nineteenth centuries saw the growth of a more humane treatment of people with mental health problems, a period known as the **mental hygiene movement**. This new treatment was based on the psychological view that people developed problems because they had become separated from nature and had succumbed to the stresses imposed by the rapid social changes of the period (Rosen, 1968). The prescribed treatment, including prayers and incantations, was rest and relaxation in a serene and physically appealing place.

A leader of the movement for **moral treatment** of people with abnormality was Philippe Pinel

(1745–1826), a French physician who took charge of La Bicêtre in Paris in 1793. Pinel argued, “To detain maniacs in constant seclusion and to load them with chains; to leave them defenceless, to the brutality of underlings . . . in a word, to rule them with a rod of iron . . . is a system of superintendence, more distinguished for its convenience than for its humanity or success” (Grob, 1994, p. 27). Pinel believed that many forms of abnormality could be cured by restoring patients’ dignity and tranquility.

Pinel ordered that patients be allowed to walk freely around the asylum. They were provided with clean and sunny rooms, comfortable sleeping quarters, and good food. Nurses and professional therapists were trained to work with the patients to help them regain their sense of tranquility and engage in planned social activities. Although many physicians thought Pinel himself was mad for releasing the patients from confinement, his approach was remarkably successful. Many people who had been locked away in darkness for decades became able to control their behavior and re-engage in life. Some improved so much that they could be released from the asylum. Pinel later successfully



In the medieval and early modern periods, doctors used bleeding to treat people with mental disorders and many other ailments. © Jean-Loup Charmet/Science Source



Philippe Pinel, a leader in the moral movement in France, helped free mental patients from the horrible conditions of the hospitals. © Robert Fleury/Science Source

reformed La Salpêtrière, a mental hospital for female patients in Paris (Grob, 1994).

In 1796, the Quaker William Tuke (1732–1822) opened an asylum in England, called The Retreat, in direct response to the brutal treatment he saw being delivered at other facilities to people with abnormal behavior. Tuke's treatment was designed to restore patients' self-restraint by treating them with respect and dignity and encouraging them to exercise self-control (Grob, 1994).

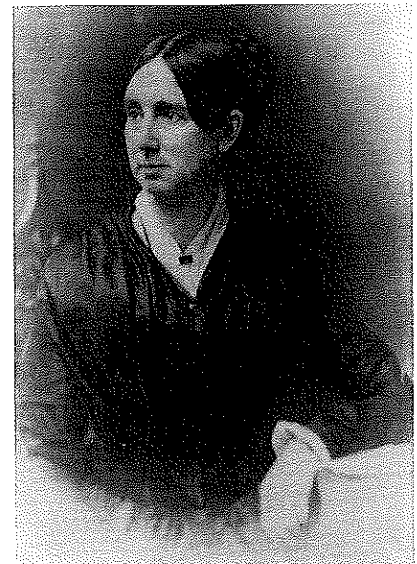
One of the most militant crusaders for moral treatment of the insane was Dorothea Dix (1802–1887). A retired schoolteacher living in Boston, Dix visited a jail on a cold Sunday morning in 1841 to teach a Sunday school class to women inmates. There she discovered the negligence and brutality that characterized the treatment of poor people exhibiting abnormal behavior, many of whom were simply warehoused in jails.

That encounter began Dix's tireless quest to improve the treatment of people with mental health problems. Dix's lobbying efforts led to the passage of laws and appropriations to fund the cleanup of mental hospitals and the training of mental health professionals dedicated to the moral treatment of patients. Between 1841 and 1881, Dix personally helped establish more than 30 mental institutions in the United States, Canada, Newfoundland, and Scotland. Hundreds of more public hospitals for the insane established during this period by others were run according to humanitarian perspectives.

Unfortunately, the moral treatment movement grew too fast. As more asylums were built and more people went into them, the capacity of the asylums to

recruit mental health professionals and to maintain a humane, individual approach to each patient declined (Grob, 1994; Scull, 1993). The physicians, nurses, and other caretakers simply did not have enough time to give each patient the calm and dedicated attention needed. The fantastic successes of the early moral treatment movement gave way to more modest successes, and to many outright failures, as patients remained impaired or their condition worsened. Even some patients who received the best moral treatment could not benefit from it because their problems were not due to a loss of dignity or tranquility. With so many patients receiving moral treatment, the number of patients who failed to benefit from it increased, and questions about its effectiveness grew louder (Grob, 1994).

At the same time, the rapid pace of immigration into the United States in the late nineteenth century meant that an increasing percentage of its asylum patients were from different cultures and often from the lower socioeconomic classes. Prejudice against these "foreigners," combined with increasing attention to the failures of moral treatment, led to declines in public support for funding such institutions. Reduced funding led to even greater declines in the quality of care. At the turn of the twentieth century, many public hospitals were no better than warehouses (Grob, 1994; McGovern, 1985; Scull, 1993).



Dorothea Dix fought for the moral treatment of mental patients in the United States. Library of Congress Prints and Photographs Division [LC-USZ62-9797]

Effective treatments for most major mental health problems were not developed until well into the twentieth century. Until then, patients who could not afford private care were warehoused in large, overcrowded, physically isolated state institutions that did not offer treatment (Deutsch, 1937).

THE EMERGENCE OF MODERN PERSPECTIVES

Although the treatment of people who exhibited abnormal behavior deteriorated somewhat at the turn of the twentieth century, the early twentieth century saw tremendous advances in the scientific study of disorders. These advances laid the groundwork for the biological, psychological, and social theories of abnormality that now dominate psychology and psychiatry.

The Beginnings of Modern Biological Perspectives

Basic knowledge of the anatomy, physiology, neurology, and chemistry of the body increased rapidly in the late nineteenth century. With the advancement of this basic knowledge came an increasing focus on biological causes of abnormality. In 1845, German psychiatrist Wilhelm Griesinger (1817–1868) published *The Pathology and Therapy of Psychic Disorders*,

presenting a systematic argument that all psychological disorders can be explained in terms of brain pathology. In 1883, one of Griesinger's followers, Emil Kraepelin (1856–1926), also published a text emphasizing the importance of brain pathology in psychological disorders. More important, Kraepelin developed a scheme for classifying symptoms into discrete disorders that is the basis for our modern classification systems, as we will discuss in the chapter, "Assessing and Diagnosing Abnormality." Having a good classification system gives investigators a common set of labels for disorders as well as a set of criteria for distinguishing between them, contributing immensely to the advancement of the scientific study of the disorders.

One of the most important discoveries underpinning modern biological theories of abnormality was the discovery of the cause of **general paresis**, a disease that leads to paralysis, insanity, and eventually death (Duffy, 1995). In the mid-1800s, reports that

patients with paresis also had a history of syphilis led to the suspicion that syphilis might be a cause of paresis. In 1897, Viennese psychiatrist Richard Krafft-Ebing injected paretic patients with matter from syphilitic sores. None of the patients developed syphilis, and Krafft-Ebing concluded that they must already have been infected with it. The discovery that syphilis is the cause of one form of insanity lent great weight to the idea that biological factors can cause abnormal behaviors (Duffy, 1995).

As we will discuss in more detail in the chapter, "Theories and Treatment of Abnormality," modern biological theories of the psychological disorders have focused on the role of genetics, structural and functional abnormalities in the brain, and biochemical imbalances. The advances in our understanding of the biological aspects of psychological disorders have contributed to the development of therapeutic medications.

The Psychoanalytic Perspective

The development of psychoanalytic theory begins with the odd story of Franz Anton Mesmer (1734–1815), an Austrian physician who believed that people have a magnetic fluid in the body that must be distributed in a particular pattern in order to maintain health. The distribution of magnetic fluid in one person could be influenced by the magnetic forces of other people, as well as by the alignments of the planets. In 1778, Mesmer opened a clinic in Paris to treat all sorts of diseases by applying animal magnetism.

The psychological disorders that were the focus of much of Mesmer's treatment were the hysterical disorders, in which people lose functioning or feeling in some part of the body for no apparent physiological reason. His patients sat in darkness around a tub containing various chemicals, and the affected areas of their bodies were prodded by iron rods emerging from the tub. With music playing, Mesmer emerged wearing an elaborate robe, touching each patient as he passed by, supposedly realigning people's magnetic fluids through his own powerful magnetic force. This process, Mesmer said, cured illness, including psychological disorders.

Mesmer eventually was labeled a charlatan by a scientific review committee that included Benjamin Franklin. Yet his methods, known as **mesmerism**, continued to fuel debate long after he had faded into obscurity. The "cures" Mesmer effected in his psychiatric patients were attributed to the trancelike state that Mesmer seemed to induce in his patients. Later, this state was labeled hypnosis. Under hypnosis, Mesmer's patients appeared very suggestible, and the mere suggestion that their ailments would disappear seemed enough to make them actually disappear.



Emil Kraepelin (1856–1926) developed a classification system for mental disorders that remains influential today.
© Hulton Archives/Getty Images

The connection between hypnosis and hysteria fascinated several leading scientists of the time, although not all scientists accepted this connection. In particular, Jean Charcot (1825–1893), head of La Salpêtrière Hospital in Paris and the leading neurologist of his time, argued that hysteria was caused by degeneration in the brain. The work of two physicians practicing in the French town of Nancy, Hippolyte-Marie Bernheim (1840–1919) and Ambroise-Auguste Liebau (1823–1904), eventually won over Charcot, however. Bernheim and Liebau showed that they could induce the symptoms of hysteria, such as paralysis in an arm or the loss of feeling in a leg, by suggesting these symptoms to patients who were hypnotized. Fortunately, they could also remove these symptoms under hypnosis. Charcot was so impressed by the evidence that hysteria has psychological roots that he became a leading researcher of the psychological causes of abnormal behavior. The experiments of Bernheim and Liebau, along with the leadership of Charcot, did a great deal to advance psychological perspectives on abnormality.

One of Charcot's students was Sigmund Freud (1856–1939), a Viennese neurologist who went to study with Charcot in 1885. In the course of this work, Freud became convinced that much of the mental life of an individual remains hidden from consciousness. This view was further supported by Freud's interactions with Pierre Janet (1859–1947) in Paris. Janet was investigating multiple personality disorder, in which people appear to have multiple, distinct personalities, each of which operates independently of the others, often not knowing the others exist (Matarazzo, 1985).

When he returned to Vienna, Freud worked with Josef Breuer (1842–1925), another physician interested in hypnosis and in the unconscious processes behind psychological problems. Breuer had discovered that encouraging patients to talk about their problems while under hypnosis led to a great upwelling and release of emotion, which eventually was called catharsis. The patient's discussion of his or her problems under hypnosis was less censored than conscious discussion, allowing the therapist to elicit important psychological material more easily.

Breuer and Freud collaborated on a paper published in 1893 as *On the Psychical Mechanisms of Hysterical Phenomena*, which laid out their discoveries about hypnosis, the unconscious, and the therapeutic value of catharsis. This paper proved to be a foundation stone in the development of **psychoanalysis**, the study of the unconscious. Freud introduced his ideas to America in 1909 in a series of lectures at Clark University in Worcester, Massachusetts, at the invitation of G. Stanley Hall, one of the founders of American psychology.

Freud wrote dozens of papers and books on his theory of psychoanalysis (discussed in detail in the chapter, "Theories and Treatment of Abnormality"), and he became the best-known figure in psychiatry and psychology. The impact of Freud's theories on the development of psychology over the next century cannot be overstated. Freudian ideas not only influenced the professional literature on psychopathology but also are used heavily in literary theory, anthropology, and other humanities. They pervade popular notions of psychological processes to this day.

The Roots of Behaviorism

In what now seems like a parallel universe, while psychoanalytic theory was being born, the roots of behaviorism were being planted first in Europe and then in the United States. Ivan Pavlov (1849–1936), a Russian physiologist, developed methods and theories for understanding behavior in terms of stimuli and responses rather than in terms of the internal workings of the unconscious mind. He discovered that dogs could be conditioned to salivate when presented with stimuli other than food if the food was paired with these other stimuli—a process later called **classical conditioning**. Pavlov's discoveries inspired American John Watson (1878–1958) to study important human behaviors, such as phobias, in terms of classical conditioning (see the chapter, "Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders"). Watson rejected psychoanalytic and biological theories of abnormal behaviors such as phobias and explained them entirely on the basis of the individual's history of conditioning. Watson (1930) went so far as to boast that he could train any healthy child to become any kind of adult he wished:

Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in, and I'll guarantee to take any one at random and train him to be any type of specialist I might select—doctor, lawyer, artist, merchant-chief, and yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and the race of his ancestors. (p. 104)

At the same time, two other psychologists, E. L. Thorndike (1874–1949) and B. F. Skinner (1904–1990), were studying how the consequences of behaviors shape their likelihood of recurrence. They argued that behaviors followed by positive consequences are more likely to be repeated than are behaviors followed by negative consequences. This process came to be known as operant, or instrumental, conditioning. This idea may seem simple to us now (one sign of how much it has influenced thinking over the past century), but at the time it was

considered radical to argue that even complex behaviors, such as violence against others, can be explained by the reinforcement or punishment these behaviors have received in the past.

Behaviorism—the study of the impact of reinforcements and punishments on behavior—has had as profound an impact on psychology and on our common knowledge of psychology as has psychoanalytic theory. Behavioral theories have led to many of the effective psychological treatments for disorders that we will discuss in this book.

The Cognitive Revolution

In the 1950s, some psychologists argued that behaviorism was limited in its explanatory power by its refusal to look at internal thought processes that mediate the relationship between stimulus and response. It wasn't until the 1970s that psychology shifted its focus substantially to the study of **cognitions**, thought processes that influence behavior and emotion. An important player in this cognitive revolution was Albert Bandura, a clinical psychologist trained in behaviorism who had contributed a great deal to the application of behaviorism to psychopathology (see the chapters, "Theories and Treatment of Abnormality" and "Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders"). Bandura argued that people's beliefs about their ability to execute the behaviors necessary to control important events—which he called **self-efficacy beliefs**—are crucial in determining people's well-being. Again, this idea seems obvious to us now, but only because it took hold in both professional psychology and lay notions of psychology.

Another key figure in cognitive perspectives was Albert Ellis, who argued that people prone to psychological disorders are plagued by irrational negative assumptions about themselves and the world. Ellis developed a therapy for emotional problems based on his theory called rational-emotive therapy. This therapy was controversial because it required therapists to challenge, sometimes harshly, their patients' irrational belief systems. It became very popular, however, and moved psychology into the study of the thought processes behind serious emotional problems. Another therapy, developed by Aaron Beck, focused on the irrational thoughts of people with psychological problems. Beck's cognitive therapy has become one of the most widely used therapies for many disorders (see the chapter, "Theories and Treatment of Abnormality"). Since the 1970s, theorists have continued to emphasize cognitive factors in psychopathology, although behavioral theories have remained strong as interpersonal theories, which we examine in the chapter, "Theories and Treatment of Abnormality," have become more prominent.

MODERN MENTAL HEALTH CARE

Halfway through the twentieth century, major breakthroughs were made in drug treatments for some of the major forms of abnormality. In particular, the discovery of a class of drugs that can reduce hallucinations and delusions, known as the phenothiazines (see the chapter, "Theories and Treatment of Abnormality"), made it possible for many people who had been institutionalized for years to be released from asylums and hospitals. Since then, there has been an explosion of new drug therapies for psychopathology. In addition, as we will discuss in the chapter, "Theories and Treatment of Abnormality," several types of psychotherapy have been developed that have proven effective in treating a wide range of psychological problems. However, there are still significant problems in the delivery of mental health care, some of which began with the deinstitutionalization movement of the mid-twentieth century.

Deinstitutionalization

By 1960, a large and vocal movement known as the **patients' rights movement** had emerged. Patients' rights advocates argued that mental patients can recover more fully or live more satisfying lives if they are integrated into the community, with the support of community-based treatment facilities—a process known as **deinstitutionalization**. While many of these patients would continue to need around-the-clock care, it could be given in treatment centers based in neighborhoods rather than in large, impersonal institutions. In the United States, the **community mental health movement** was officially launched in 1963 by President John Kennedy as a "bold new approach" to mental health care. This movement attempted to provide coordinated mental health services to people in **community mental health centers**.

The deinstitutionalization movement had a massive effect on the lives of people with serious psychological problems. Between 1955 and 1998, the number of patients in state psychiatric hospitals in the United States declined from a high of 559,000 to about 57,000, almost a 90 percent reduction (Lamb & Weinberger, 2001). Parallel trends were seen in Europe (Figure 1). Many former mental patients who had lived for years in cold, sterile facilities, receiving little useful care, experienced dramatic increases in their quality of life on their release. Moreover, they suddenly had the freedom to live where they wanted, as they saw fit.

Several types of community-based treatment facilities that were created at this time continue to serve people with mental health problems. *Community*

mental health centers often include teams of social workers, therapists, and physicians who coordinate care. **Halfway houses** offer people with long-term mental health problems the opportunity to live in a structured, supportive environment as they try to reestablish working relationships and ties to family and friends. **Day treatment centers** allow people to obtain treatment during the day, along with occupational and rehabilitative therapies, but live at home at night.

People with acute problems that require hospitalization may go to inpatient wards of general hospitals or specialized psychiatric hospitals. Sometimes, their first contact with a mental health professional is in the emergency room of a hospital. Once their acute problems have subsided, however, they often are released back to their community treatment center rather than remaining for the long term in a psychiatric hospital.

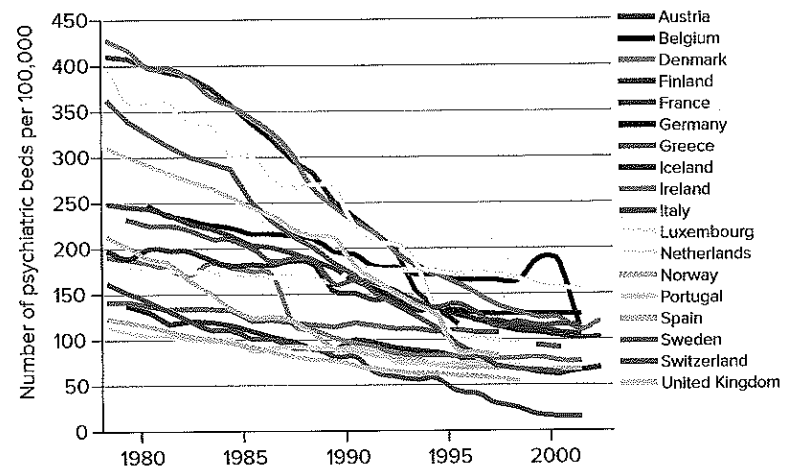
Unfortunately, the resources to care for all the mental patients released from institutions have never been adequate. There were not enough halfway houses built or community mental health centers funded to serve the thousands of men and women who formerly were institutionalized or would have been institutionalized if the movement had not taken place (Figure 2). Meanwhile, the state psychiatric hospitals to which former patients would have retreated were closed down by the hundreds. The community mental health movement spread to Europe, with similar consequences. Twenty-eight percent of European countries have few or no community-based services for people with serious mental health problems (Semrau, Barley, Law, & Thornicroft, 2011; WHO World Mental Health Survey Consortium, 2004).

Men and women released from mental institutions began living in nursing homes and other types of group homes, where they received little mental health treatment, or with their families, many of whom were ill-equipped to handle serious mental illness (Lamb, 2001). Some began living on the streets. Certainly not all homeless people are mentally ill, but some researchers estimate that up to four-fifths of all long-term homeless adults in the United States and Europe have a major mental disorder, a severe substance use disorder (such as alcohol dependence), or both (WHO World Mental Health Survey Consortium, 2004). In emergencies, these people end up in general or private hospitals that are not equipped to treat them appropriately. Many end up in jail. One study of prison inmates found that two-thirds had experienced some form of diagnosable mental disorder in their lifetime (Trestman, Ford, Zhang, & Wiesbrock, 2007).

Thus, although deinstitutionalization began with laudatory goals, many of these goals were never fully

FIGURE 1

Trends in the Numbers of Psychiatric Beds in Western Europe, 1978–2002.



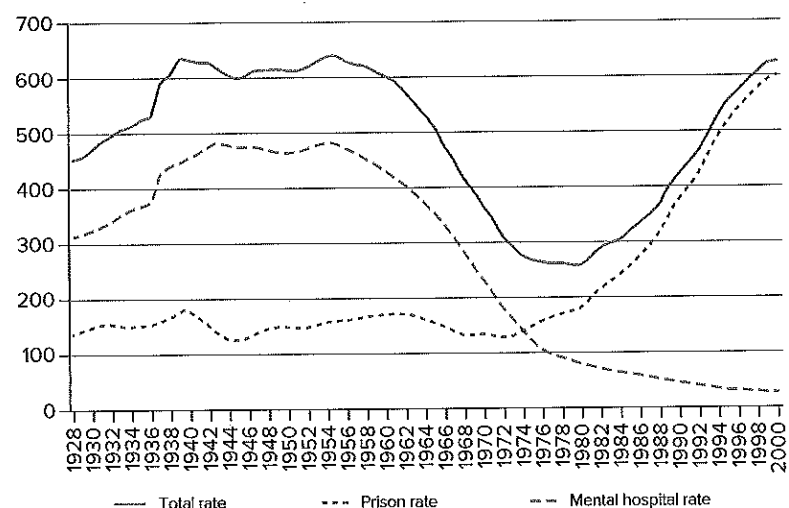
McDaid, David and Graham Thornicroft, "Policy brief: Mental Health II: Balancing institutional and community-based care," *World Health Organization*. © World Health Organization 2005, on behalf of the European Observatory on Health Systems and Policies. All rights reserved. Used with permission.

FIGURE 2

As Deinstitutionalization Led to Fewer People in Mental Hospitals, Incarceration Rates in Prisons Increased Dramatically. Many observers believe

prisons serve as de facto institutionalization of individuals with mental illness who would previously have been served by mental health facilities.

Institutionalization in the United States (per 100,000 adults)



reached, leaving many people who formerly would have been institutionalized in mental hospitals no better off. In recent years, the financial strains on local, state, and federal governments have led to the closing of many community mental health centers.



Deinstitutionalization led to a rise in homelessness among people with mental illnesses, which often go untreated.
© Sonda Dawes/The Image Works

Managed Care

The entire system of private insurance for health care in the United States underwent a revolution in the second half of the twentieth century, when managed care emerged as the dominant means for organizing health care. **Managed care** is a collection of methods for coordinating care that ranges from simple monitoring to total control over what care can be provided and paid for. The goals are to coordinate services for an existing medical problem and to prevent future medical problems. Often, health care providers are given a set amount of money per member (patient) per month and then must determine how best to serve each patient.

Managed care can solve some of the problems created by deinstitutionalization. For example, instead of leaving it up to people with a serious psychological problem, or their families, to find appropriate care, the primary provider might find this care and ensure that patients have access to it. Suppose an individual patient reported to his physician that he was hearing voices when no one was around. The physician might refer the patient to a psychiatrist for an evaluation to determine if the patient might be suffering from schizophrenia. In some cases, the primary care physician might coordinate care offered by other providers, such as drug treatments, psychotherapy, and rehabilitation services. The primary provider also might ensure continuity of care so that patients do not “fall through the cracks.” Thus, theoretically, managed care can have tremendous benefits for people with long-term, serious mental health problems. For people with less severe psychological problems, the availability of mental health care through managed care systems and other private insurance systems has led to a large increase in the number of people seeking psychotherapy and other types of mental health care.

Unfortunately, however, mental health care often is not covered fully by health insurance. Also, many people do not have any health insurance. Laws have been passed in recent years that are intended to increase the availability of coverage for mental health services, but these laws are being hotly contested. Mental health services are expensive. Because mental health problems are sometimes chronic, mental health treatment can take a long time.

The Medicaid program, which covers one-quarter of all mental health care spending in the United States, has been a target for reductions in

recent years, even as the number of people seeking mental health care has risen. Many states have reduced or restricted eligibility and benefits for mental health care, increased co-payments, controlled drug costs, and reduced or frozen payments to providers (Shirk, 2008). At the same time, reductions in state and city welfare programs and other community services targeted at the poor have made daily life more difficult for poor people in general, and in particular for people with serious mental disorders, who often have exhausted their financial resources.

Only 50 to 60 percent of people in the United States with serious psychological problems receive stable mental health treatment, with much lower percentages receiving care in less-developed and poorer countries (Kessler et al., 2001; Wang et al., 2007). For example, while in Europe wealthier countries such as Finland and Belgium have over 20 mental health experts per 100,000 people, poorer countries such as Turkey and

CASE STUDY

Because of severe schizoaffective disorder, Rebecca J., age 56, had spent 25 years in a New York State psychiatric hospital. She lived in a group home in the community but required rehospitalization for several weeks approximately once a year when she relapsed despite taking medications. As a result of the reduction in state hospital beds (for people with mental disorders) and attempts by the state to shift readmissions for fiscal reasons, these rehospitalizations increasingly took place on the psychiatric wards of general hospitals that varied widely in quality. In 1994, she was admitted to a new hospital because the general hospital where she usually went was full. The new hospital was inadequately staffed to provide care for patients as sick as Rebecca J. In addition, the psychiatrist was poorly trained and had access to only a small fraction of Rebecca J.'s complex and voluminous past history. During her 6-week hospitalization, Rebecca J. lost 10 pounds because the nursing staff did not help her eat, had virtually all her clothing and personal effects lost or stolen, became toxic from her lithium medication, which was not noticed until she was semicomatose, and was prematurely discharged while she was still so psychotic that she had to be rehospitalized in another hospital less than 24 hours later. Meanwhile, less than a mile away in the state psychiatric hospital where she had spent many years, a bed sat empty on a ward with nursing staff and a psychiatrist who knew her case well and with her case records readily available in a file cabinet.

Source: Torrey, 2006, pp. 105–106.

Tajikistan have fewer than 2 mental health experts per 100,000 people (Semrau et al., 2011). Sometimes, people refuse care that might help them. Other times, they fall through holes in the medical safety net because of bureaucratic rules designed to shift the burden of mental health care costs from one agency to another, as in the case of Rebecca J.

As we discuss the research showing the effectiveness of various treatments for specific disorders throughout the remainder of the book, it is important to keep in mind that those treatments can work only if people have access to them.

Professions Within Abnormal Psychology

In our times, a number of professions are concerned with abnormal or maladaptive behavior. *Psychiatrists* have an MD degree and have received specialized training in the treatment of psychological problems. Psychiatrists can prescribe medications for the treatment of these problems and have been trained to conduct psychotherapies as well.

Clinical psychologists typically have a PhD in psychology, with a specialization in treating and researching psychological problems. Some have a PsyD degree from a graduate program that emphasizes clinical training more than research training. Clinical psychologists can conduct psychotherapy, but in most states they do not currently prescribe medications. (They do have limited prescription privileges in some states, and psychologists are lobbying for prescription privileges in many others.)

Marriage and family therapists specialize in helping families, couples, and children overcome problems that are interfering with their well-being. *Clinical social workers* have a master's degree in social work and often focus on helping people with psychological problems overcome social conditions that are contributing to their problems, such as joblessness or homelessness. Some states have *licensed mental health counselors*, individuals who have graduate training in counseling beyond the bachelor's degree in counseling but have not obtained a PhD. *Psychiatric nurses* have a degree in nursing, with a specialization in the treatment of people with severe psychological problems. They often work on inpatient psychiatric wards in hospitals, delivering medical care and certain forms of psychotherapy, such as group therapy to increase patients' contacts with one another. In some states, they have privileges to write prescriptions for psychotherapeutic drugs.

Each of these professions has its rewards and limitations. Students who are interested in one or more of these professions often find it helpful to volunteer as a research assistant in studies

of psychological problems or for work in a psychiatric clinic or hospital. Some students find tremendous gratification working with people with psychological problems, whereas others find it more gratifying to conduct research that might answer important questions about these problems. Many mental health professionals of all types combine clinical practice and research in their careers.

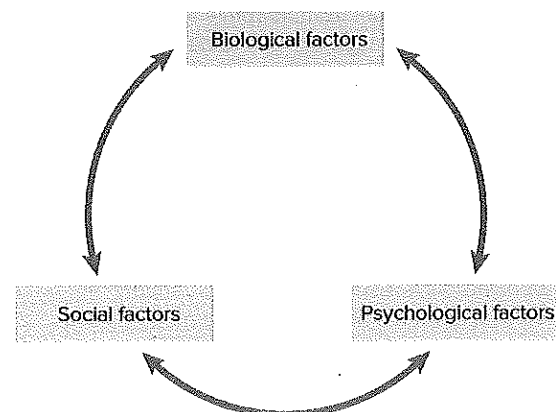
CHAPTER INTEGRATION

Although the biological, psychological, and social theories of abnormality have traditionally been viewed as competing with one another to explain psychological disorders, many clinicians and researchers now believe that theories that integrate biological, psychological, and social perspectives on abnormality will prove most useful (Figure 3). For example, in the chapter, "Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders" we discuss theories of anxiety disorders that take into account individuals' genetic and biochemical vulnerabilities, the impact of stressful events, and the role of cognition in explaining why some people suffer debilitating anxiety. Throughout this book, we will emphasize how biological, psychological, and social factors interact with and influence one another to produce and maintain mental health problems. In other words, we will present an integrationist approach to psychological problems.

FIGURE 3

The Integrationist Approach to Understanding Mental Health

Many mental health theories today strive to integrate biological, psychological, and social factors in understanding mental health issues. This integrationist approach will be emphasized in this book.



SHADES OF GRAY DISCUSSION

Our society highly values extreme thinness in women, and Jennifer has received substantial reinforcement for her weight loss. Thus, we see her behaviors as not very deviant. Her dieting causes her some dysfunction and distress: She is having trouble concentrating in school and is terrified of gaining weight. But her weight loss is also bringing her social benefits. Are her behaviors dangerous? Extremely thin women risk medical complications such as reduced bone density and heart arrhythmias (see the chapter, "Eating Disorders"). So Jennifer's behaviors are somewhat dysfunctional, distressing, and dangerous, but they are so typical of women her age that people will differ in whether they believe her behaviors qualify as abnormal.

Mark's behaviors also seem familiar, because drinking is considered a "rite of passage" by some students. Mark drinks considerably more than most young men (see the chapter, "Substance Use and Gambling

Disorders"), so his level of drinking is deviant. He also has experienced some dysfunction as a result of his drinking: He has gotten in legal trouble and his grades are low. Mark certainly doesn't seem distressed about his drinking. Mark's behaviors are dangerous: He is more likely to be involved in accidents while drunk and risks alcohol poisoning from the volume he consumes. So Mark's behaviors might be considered more abnormal than Jennifer's behaviors, but people will differ on the degree of abnormality.

Would your judgments of the abnormality of these behaviors change if it were Jennifer who was drinking heavily and Mark who was dieting excessively to lose weight? Cultural norms for thinness and for drinking alcohol differ significantly for women and men. Gender strongly influences our views of normality and abnormality.

CHAPTER SUMMARY

- Cultural relativists argue that the norms of a society must be used to determine the normality of a behavior. Others have suggested that unusual behaviors, or behaviors that cause subjective distress in a person, should be labeled abnormal. Still others have suggested that only behaviors resulting from mental illness or disease are abnormal. All these criteria have serious limitations, however.
- The current consensus among professionals is that behaviors that cause a person to suffer distress, prevent him or her from functioning in daily life, are unusual or deviant, and pose a threat to the person or others are abnormal. These criteria can be remembered as the four Ds: dysfunction, distress, deviance, and dangerousness. Abnormal behaviors fall along a continuum from adaptive to maladaptive, and the location of the line designating behaviors as disordered is based on a subjective decision.
- Historically, theories of abnormality have fallen into one of three categories. Biological theories saw psychological disorders as similar to physical diseases, caused by the breakdown of a system of the body. Supernatural theories saw abnormal behavior as a result of divine intervention, curses, demonic possession, and personal sin. Psychological theories saw abnormal behavior as being a result of stress.
- In prehistoric times, people probably had largely supernatural theories of abnormal behavior, attributing it to demons or ghosts. A treatment for abnormality in the Stone Age may have been to drill holes in the skull to allow demons to depart, a procedure known as trephination.
- Ancient Chinese, Egyptian, and Greek texts suggest that these cultures took a biological view of abnormal behavior, although references to supernatural and psychological theories also can be found.
- During the Middle Ages, abnormal behavior may have been interpreted as being due to witchcraft.
- In psychic epidemics and mass hysterics, groups of people show similar psychological and behavioral symptoms. Usually, these have been attributed to common stresses or beliefs.
- Even well into the nineteenth and twentieth centuries, many people who acted abnormally were shut away in prisonlike conditions, tortured, starved, or ignored.
- As part of the mental hygiene movement, the moral management of mental hospitals became more widespread. Patients in these hospitals were treated with kindness and given the best biological treatments available. However, effective biological treatments for most psychological problems were not available until the mid-twentieth century.
- Modern biological perspectives on psychological disorders were advanced by Kraepelin's development of a classification system and the discovery that general paresis is caused by a syphilis infection.

- The psychoanalytic perspective began with the work of Anton Mesmer. It grew as Jean Charcot, and eventually Sigmund Freud, became interested in the role of the unconscious in producing abnormality.
- Behaviorist views on abnormal behavior began with John Watson and B. F. Skinner, who used principles of classical and operant conditioning to explain normal and abnormal behavior.
- Cognitive theorists such as Albert Ellis, Albert Bandura, and Aaron Beck focused on the role of thinking processes in abnormality.
- The deinstitutionalization movement attempted to move mental patients from mental health facilities to community-based mental health centers. Unfortunately, community-based mental health centers have never been fully funded or supported, leaving many former mental patients with few resources in the community.
- Managed care systems are meant to provide coordinated, comprehensive medical care to patients. They can be a great asset to people with long-term, serious psychological disorders.
- The professions within abnormal psychology include psychiatrists, psychologists, marriage and family therapists, clinical social workers, licensed mental health counselors, and psychiatric nurses.

KEY TERMS

continuum model of abnormality

psychopathology

cultural relativism

biological theories

supernatural theories

psychological theories

trephination

psychic epidemics

mental hygiene movement

moral treatment

general paresis

mesmerism

psychoanalysis

classical conditioning

behaviorism

cognitions

self-efficacy beliefs

patients' rights movement

deinstitutionalization

community mental health movement

community mental health centers

halfway houses

day treatment centers

managed care

Chapter 2



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Theories and Treatment of Abnormality

CHAPTER OUTLINE

Approaches Along the Continuum

Extraordinary People: Steven Hayes

Biological Approaches

Psychological Approaches

Shades of Gray

Sociocultural Approaches

Prevention Programs

Common Elements in Effective Treatments

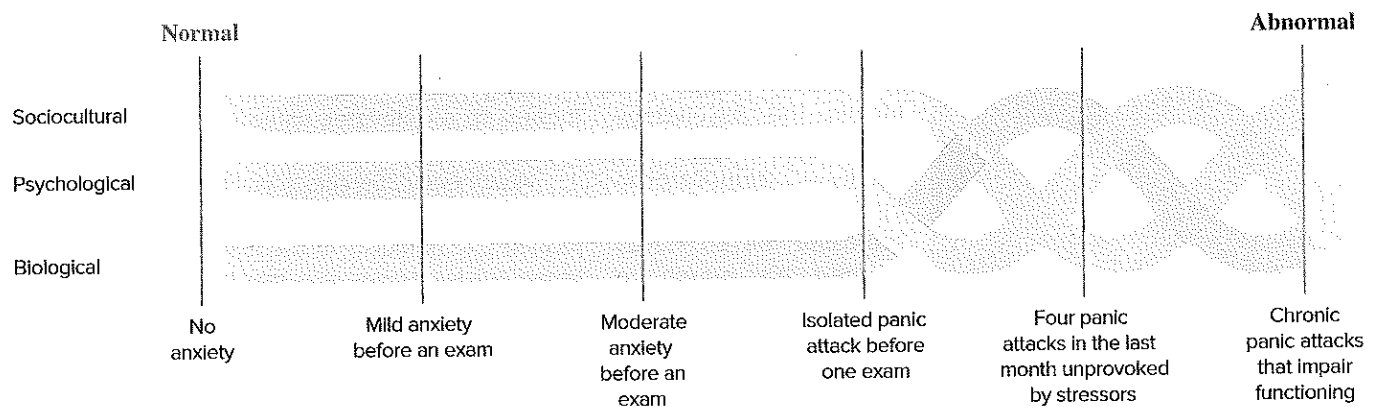
Chapter Integration

Shades of Gray Discussion

Chapter Summary

Key Terms

Approaches Along the Continuum



In this chapter, we discuss three general approaches to understanding psychological disorders. The **sociocultural approach** views these disorders as the result of environmental conditions and cultural norms. The **biological approach** views disorders as the result of abnormal genes or neurobiological dysfunction. The **psychological approach** views disorders as the result of thinking processes, personality styles, and conditioning.

People who favor a sociocultural approach generally view psychological disorders as falling along a continuum because they do not view these disorders as vastly different from normal functioning. Instead, they think of psychological disorders as labels that society puts on people whose behaviors and feelings differ from social and cultural norms (Castro, Barrera, & Holleran Steiker, 2010). While they agree that these behaviors may be dysfunctional, distressing, deviant, and dangerous, they see them as understandable consequences of social stress in the individuals' lives.

A decade ago, proponents of the biological approach generally did not accept a continuum model of abnormality. Instead, they viewed psychological disorders as either present or absent—much the way they viewed medical or physical disorders (such as cancer). In recent years, however, proponents of biological approaches have embraced a continuum perspective on abnormality, seeing disorders as collections of deficits in fundamental neurobiological processes (Cannon & Keller, 2006; Hyman, 2010; Insel et al., 2010). For example, the symptoms of schizophrenia are increasingly viewed as problems in cognition and emotional processing that are due to deficits in specific

areas of the brain. These problems in cognition and emotional processing can range from very mild to very severe, causing symptoms that also vary along a continuum from mild to severe. In other words, a person can have "a little bit of schizophrenia" or can exhibit significantly more symptoms, to the point of qualifying for a diagnosis of schizophrenia.

Psychological approaches to disorders have also been moving toward a continuum model of psychopathology in recent years (Widiger & Mullins-Sweatt, 2009). According to these approaches, psychological processes such as cognition, learning, and emotional control also fall along a continuum that ranges from very typical to highly dysfunctional. Minor learning difficulties, for example, would be placed on the more "typical" end of the continuum, and severe mental retardation on the "dysfunctional" end (Sherman, 2008). Likewise, problems in emotional control might range from feeling blue (typical) to feeling severely depressed with suicidal intentions (dysfunctional). A continuum perspective would suggest that people on the less severe end of the spectrum (who do not meet the criteria for the disorder) give us insight into the behavior of those on the more severe end (those who do meet the criteria).

As we discuss in this chapter, the sociocultural, biological, and psychological approaches are increasingly being integrated into a biopsychosocial approach to mental disorders. This integrative approach suggests that factors along the continua of biological dysfunction, psychological dysfunction, and sociocultural risks interweave to create the problems we call mental disorders.

Extraordinary People

Steven Hayes

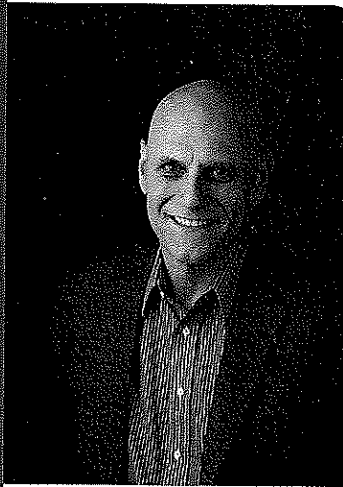


Photo by Drew Altizer, Courtesy, Steven C. Hayes

Sitting in a faculty meeting in the Psychology Department at the University of North Carolina at Greensboro, assistant professor Steven Hayes opened his mouth to make a point and found himself unable to utter a sound. His heart began racing, and he thought he might be having a heart attack. He was only 29. The episode passed, but a week later he had a similar experience in another meeting. Over the next 2 years, his attacks of absolute panic became more frequent and began dominating his life. He had great difficulty lecturing

and couldn't be in an enclosed place, such as a movie theater or an elevator, without being engulfed with anxiety. He thought his career and his life were over.

Now, nearly 30 years later, Hayes is a full professor at the University of Nevada and one of the most accomplished psychologists in the field, with over 300 published articles. Hayes says that he didn't overcome his debilitating anxiety with medications or with any of the psychotherapies prominent in the 1980s, when he was suffering the most. Instead, he learned to accept that he would have anxiety attacks and to stop fighting them. Out of his experiences, he developed a new form of psychological therapy, called *acceptance and commitment therapy* or *ACT*. This therapy teaches individuals with psychological problems to be more accepting and compassionate toward themselves, to commit to their values, and to use meditation practices that help them live more in the present moment. ACT is one of the hottest of the *third-wave approaches* to psychotherapy, which we discuss later in this chapter.

Steven Hayes was able to integrate his personal experiences with his training in psychology to develop a new theory and therapy of his own. A **theory** is a set of ideas that provides a framework for asking questions about a phenomenon and for gathering and interpreting information about that phenomenon. A **therapy** is a treatment, usually based on a theory of a phenomenon, that addresses those factors the theory says cause the phenomenon.

Hayes believed that his anxiety attacks were due to the inability to accept his symptoms, but other theories suggest alternative causes. If you took a biological approach to abnormality, you would suspect that Hayes's symptoms were caused by a biological factor, such as a genetic vulnerability to anxiety, inherited from his parents. The psychological approach, like Hayes's approach, looks for the causes of abnormality in people's beliefs, life experiences, and relationships. Finally, if you took a sociocultural approach, you would consider the ways Hayes's cultural values or social environment might affect his anxiety.

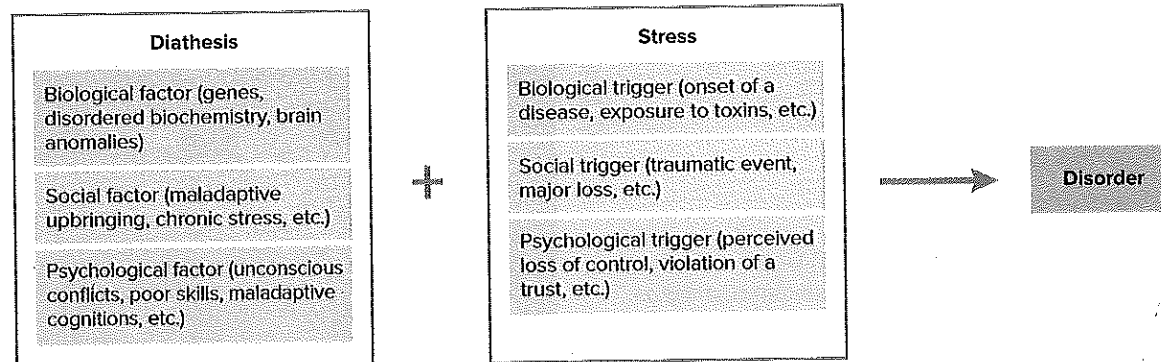
Traditionally, these different approaches have been seen as incompatible. People frequently ask, "Is the cause of these symptoms biological *or* psycho-

logical *or* environmental?" This question is often called the nature-nurture question: Is the cause of psychological problems something in the nature or biology of the person, or is it in the person's nurturing or history of events to which the person was exposed? This question implies that such problems must have a single cause, rather than multiple causes. Indeed, most theories of psychological problems over history have searched for the one factor—the one gene, the one traumatic experience, the one personality trait—that causes people to develop a particular set of symptoms.

Many contemporary theorists, however, take a **biopsychosocial approach**, recognizing that it is often a combination of biological, psychological, and sociocultural factors that results in the development of psychological symptoms. These factors are often referred to as *risk factors*, because they increase the risk of psychological problems. Risk factors can be biological, such as a genetic predisposition. They may also be psychological, such as difficulty remaining calm in stressful situations. Or they may be sociocultural, such as growing up with the stress of discrimination based on ethnicity or race.

FIGURE 1

The Diathesis-Stress Model of the Development of Disorders. The diathesis-stress model says that it takes both an existing diathesis to a disorder and a trigger, or stress, to create the disorder.



Some risk factors may lead specifically to certain types of symptoms; for example, a specific gene, known as *DISC1*, appears to substantially increase the risk of developing schizophrenia (Cannon et al., 2005). More commonly, however, risk factors create increased risk for a number of different problems. For instance, severe stress, such as being the victim of sexual abuse, is associated with increased risk of developing a wide range of psychopathologies (Maniglio, 2009). Factors that increase risk for multiple types of psychological problems are referred to as *transdiagnostic risk factors* (Nolen-Hoeksema & Watkins, 2011). We will discuss several biological, psychological, and sociocultural transdiagnostic risk factors in this book.

In many cases, a risk factor may not be enough to lead a person to develop severe psychological symptoms. It may take some other experience or trigger for psychopathology to develop. Again, this trigger can be biological, such as an illness that changes a person's hormone levels. Or the trigger can be psychological or social, such as a traumatic event. Only when the risk factor and the trigger or stress come together in the same individual does the full-blown disorder emerge. This situation is often referred to as a **diathesis-stress model** (*diathesis* is another term for risk factor) (Figure 1). Although Hayes may indeed have had a genetic or personality vulnerability to anxiety (his diathesis), it may have been only when he experienced particular stressors that he developed significant anxiety.

Each of the different approaches to abnormality has led to treatments meant to relieve the symptoms people suffer. Proponents of biological

theories of mental disorders most often prescribe medication, although several other types of biological treatments are discussed in this book. Proponents of psychological and some sociocultural approaches to abnormality most often prescribe psychotherapy. There are many forms of psychotherapy, but most involve a therapist (psychiatrist, psychologist, clinical social worker) talking with the person suffering from psychological problems (typically called a patient or client) about his or her symptoms and what is contributing to these symptoms. The specific topic of these conversations depends on the therapist's theoretical approach. Both medications and psychotherapy have proven effective in the treatment of many types of psychological symptoms. Medications and psychotherapy are often used together in an integrated approach (Benjamin, 2005). Proponents of sociocultural approaches also may work to change social policies or the social conditions of vulnerable individuals so as to improve their mental health.

In this chapter, we introduce the major theories of abnormality that have dominated the field in its modern history, along with the treatments that derive from these theories. We present the theories and treatments one at a time to make them easier to understand. Keep in mind, however, that most mental health professionals now take an integrated biopsychosocial approach to understanding mental health problems, viewing them as the result of a combination of biological, psychological, and social risk factors and stresses that come together and feed off one another. We will discuss these integrated biopsychosocial approaches throughout this book.

BIOLOGICAL APPROACHES

Consider the story of Phineas Gage, one of the most dramatic examples of the effect of biological factors on psychological functioning.

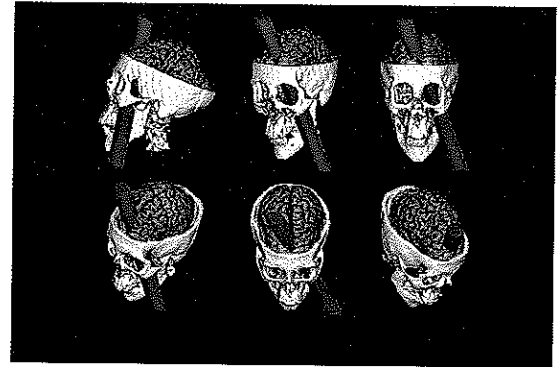
CASE STUDY

On September 13, 1848, Phineas P. Gage, a 25-year-old construction foreman for the Rutland and Burlington Railroad in New England, became the victim of a bizarre accident. On the fateful day, an accident led to a powerful explosion that sent a fine-pointed, 3-cm-thick, 109-cm-long tamping iron hurling, rocketlike, through Gage's face, skull, and brain and then into the sky. Gage was momentarily stunned but regained full consciousness immediately after. He was able to talk and even walk with the help of his men. The iron landed several yards away.

Phineas Gage not only survived the momentous injury, in itself enough to earn him a place in the annals of medicine, but he survived as a different man. Gage had been a responsible, intelligent, and socially well-adapted individual, a favorite with peers and elders. He had made progress and showed promise. The signs of a profound change in personality were already evident during his convalescence under the care of his physician, John Harlow. But as the months passed, it became apparent that the transformation was not only radical but difficult to comprehend. In some respects, Gage was fully recovered. He remained as able-bodied and appeared to be as intelligent as before the accident; he had no impairment of movement or speech, new learning was intact, and neither memory nor intelligence in the conventional sense had been affected. However, he had become irreverent and capricious. His respect for the social conventions by which he once abided had vanished. His abundant use of profanity offended those around him. Perhaps most troubling, he had taken leave of his sense of responsibility. He could not be trusted to honor his commitments. His employers had deemed him "the most efficient and capable" man in their "employ" but now they had to dismiss him. In the words of his physician, "the equilibrium or balance, so to speak, between his intellectual faculty and animal propensities" had been destroyed. In the words of his friends and acquaintances, "Gage was no longer Gage." (Adapted from Damasio et al., 1994, p. 1102)

FIGURE 2

Phineas Gage's Brain Injury. Modern neuroimaging techniques have helped identify the precise location of damage to Phineas Gage's brain.



© Patrick Landmann/Science Source

As a result of damage to his brain from the accident, Gage's basic personality seemed to have changed. He was transformed from a responsible, socially appropriate man into an impulsive, emotional, and socially inappropriate man. Almost 150 years later, researchers using modern neuroimaging techniques on Gage's preserved skull and a computer simulation of the tamping-iron accident determined the precise location of the damage to Gage's brain (Figure 2).

Studies of people today who suffer damage to this area of the brain reveal that they have trouble with making rational decisions in personal and social matters and with processing information about emotions. They do not have trouble, however, with following the logic of an abstract problem, with arithmetic calculations, or with memory. Like Gage, their basic intellectual functioning remains intact, but their emotional control and social judgment are impaired (Damasio et al., 1994).

The damage Gage suffered caused areas of his brain to not function properly. *Brain dysfunction* is one of three causes of abnormality on which biological approaches often focus. The other two are biochemical imbalances and genetic abnormalities. Brain dysfunction, biochemical imbalances, and genetic abnormalities can all influence one another. For example, brain dysfunction may be the result of genetic factors and may cause biochemical imbalances. We explore these three biological causes of abnormality in this section.

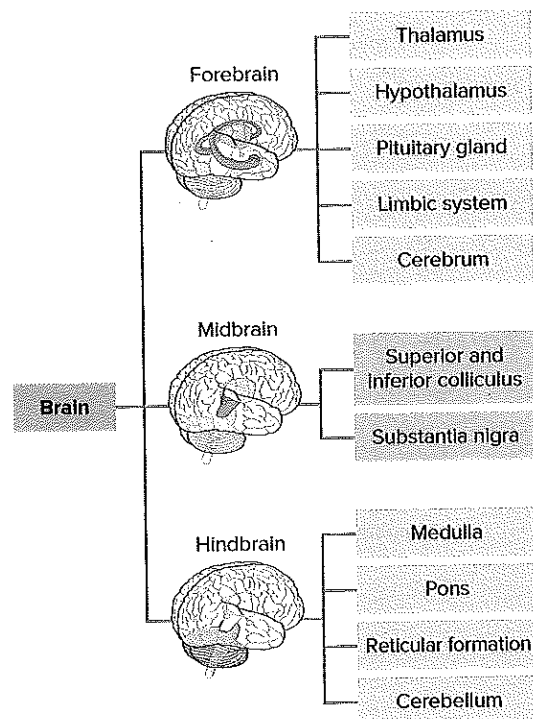
Brain Dysfunction

Like Phineas Gage, people whose brains do not function properly often show problems in psychological functioning. The brain can be divided into three main regions (Kalat, 2007): the hindbrain, which includes all the structures located in the hind (posterior) part of the brain, closest to the spinal cord; the midbrain, located in the middle of the brain; and the forebrain, which includes the structures located in the front (anterior) part of the brain (Figures 3 and 4). The hindbrain sits on top of the spinal cord and is crucial for basic life functions. It contains the medulla, which helps control breathing and reflexes; the pons, which is important for attentiveness and the timing of sleep; the reticular formation, a network of neurons that control arousal and attention to stimuli; and the cerebellum, which is concerned primarily with the coordination of movement. The midbrain contains the superior colliculus and inferior colliculus, which relay sensory information and control movement, and the substantia nigra, a crucial part of the pathway that regulates responses to reward.

The human forebrain is relatively large and developed compared to that of other organisms (Kalat, 2007). The outer layer of the cerebrum is called the **cerebral cortex** (or simply cortex; Figure 5a and b); it is this area of the brain that was damaged in Phineas Gage's accident. The cerebral cortex is involved in many of our most advanced thinking processes. It is composed of two hemispheres on the left and right sides of the brain that are connected by the corpus

FIGURE 3

Organization of the Brain.



collosum. Each hemisphere is divided into four lobes (see Figure 5a and b): the frontal, parietal, occipital, and temporal lobes, large regions that perform diverse functions.

FIGURE 4

Some of the Major Structures of the Brain.

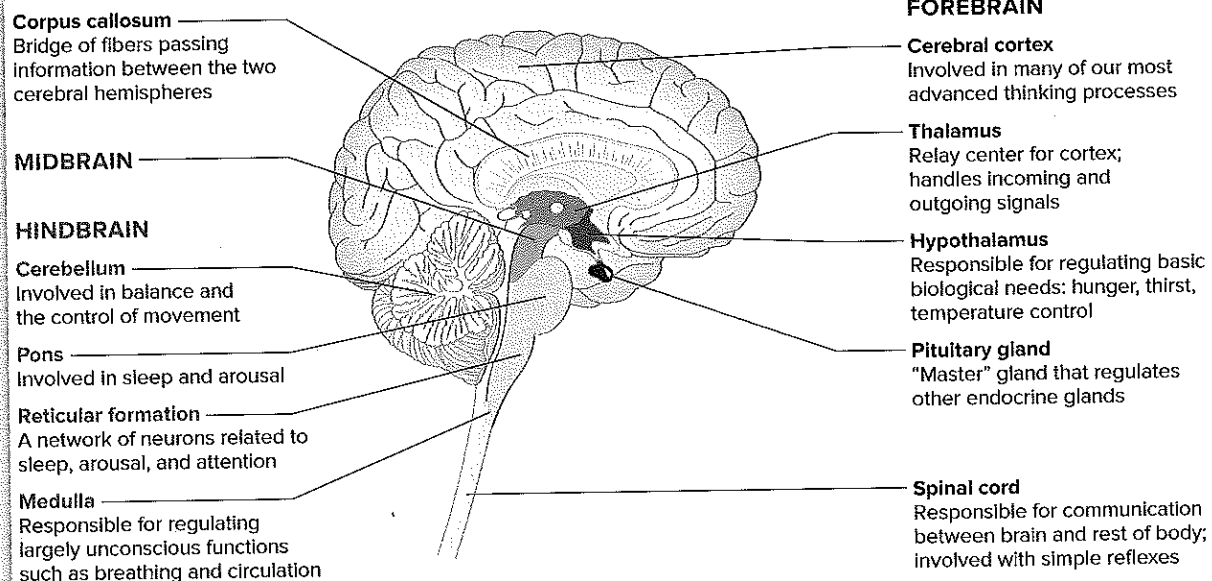
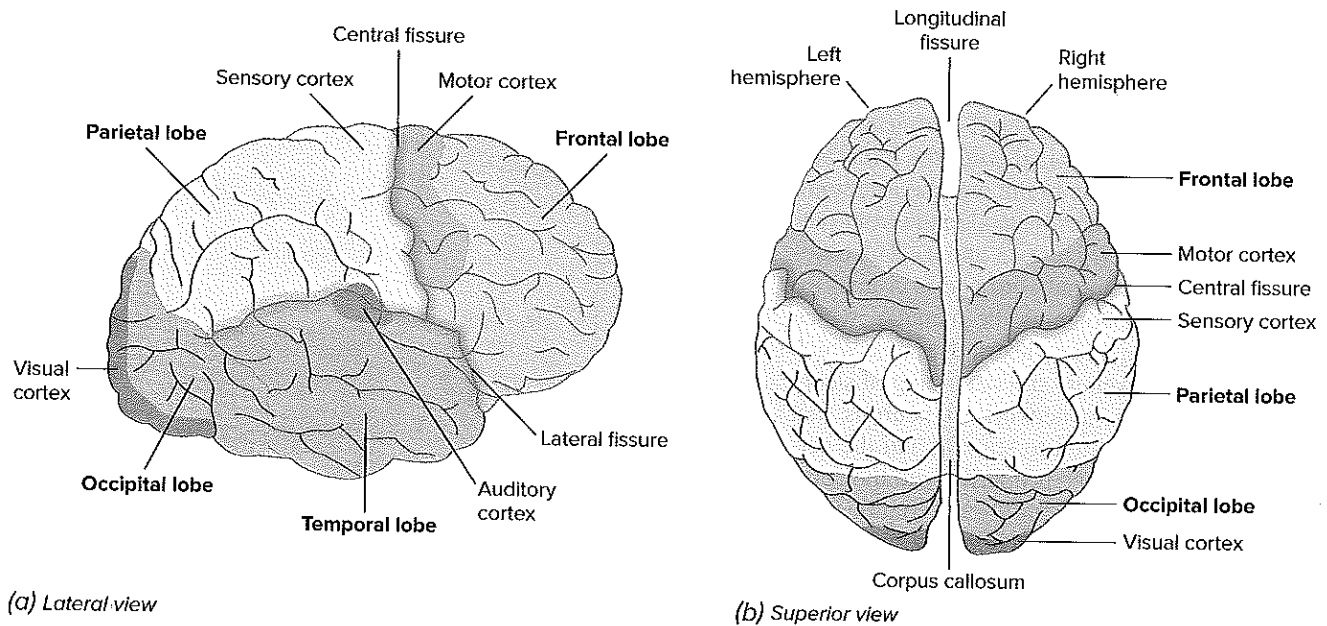


FIGURE 5 Major Sections of the Cerebral Cortex.

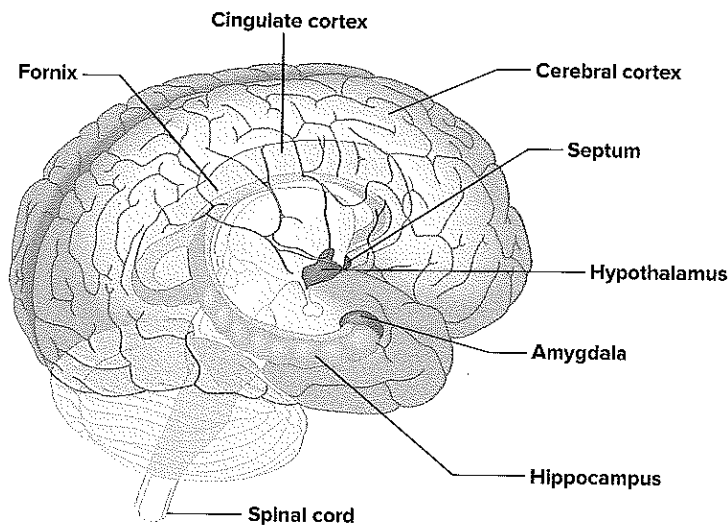
The other structures of the forebrain are found just under the cerebrum and are called *subcortical structures*. The **thalamus** directs incoming information from sense receptors (such as vision and hearing)

to the cerebrum. The **hypothalamus**, a small structure just below the thalamus, regulates eating, drinking, and sexual behavior. The hypothalamus is also involved in processing basic emotions. For example, stimulation of certain areas of the hypothalamus produces sensations of pleasure, whereas stimulation of other areas produces sensations of pain or unpleasantness (Kalat, 2007). The pituitary gland is the most important part of the endocrine system, discussed in the next section.

FIGURE 6

Structures of the Limbic System. The limbic system is a collection of structures that are closely interconnected with the hypothalamus.

They appear to exert additional control over some of the instinctive behaviors regulated by the hypothalamus, such as eating, sexual behavior, and reaction to stressful situations.



Around the central core of the brain and closely interconnected with the hypothalamus is the **limbic system**, a set of structures that regulate many instinctive behaviors, such as reactions to stressful events and eating and sexual behavior (Figure 6). The **amygdala** is a structure of the limbic system that is critical in emotions such as fear (Debiec et al., 2010). Monkeys with damage to the limbic system sometimes become chronically aggressive, reacting with rage to the slightest provocation. At other times, they become exceptionally passive, not reacting at all to real threats. The **hippocampus** is a part of the limbic system that plays a role in memory.

Brain dysfunction can result from injury, such as from an automobile accident, and from diseases that cause brain deterioration (Kalat, 2007). You will see that certain areas of the brain are associated with a wide range of psychological symptoms. Thus, dysfunctions in these areas are transdiagnostic risk factors. For example, alterations in the size or activity of the frontal cortex are associated with schizophrenia,

a severe disorder in which people have hallucinations (unreal perceptual experiences) and delusions (unreal beliefs); with depression; and with attention-deficit/hyperactivity disorder (ADHD), among other disorders. We will also consider examples of how environmental and psychological factors can change brain functioning. For example, a number of studies have shown that psychotherapy alone, without drug therapy, can change brain activity (Frewen, Dozois, & Lanius, 2008).

Biochemical Imbalances

The brain requires a number of chemicals in order to work efficiently and effectively. These chemicals include neurotransmitters and hormones, the latter produced by the endocrine system.

Neurotransmitters

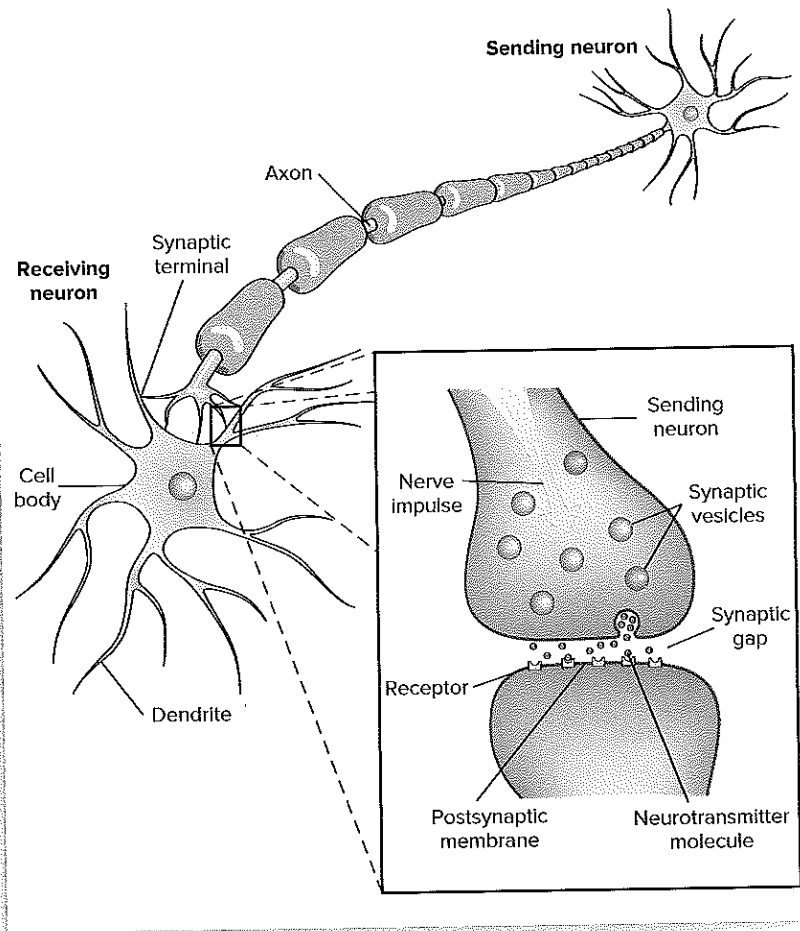
Neurotransmitters are biochemicals that act as messengers carrying impulses from one neuron, or nerve cell, to another in the brain and in other parts of the nervous system (Figure 7). Each neuron has a cell body and a number of short branches, called dendrites. The dendrites and cell body receive impulses from adjacent neurons. The impulse then travels down the length of a slender, tubelike extension, called an axon, to small swellings at the end of the axon, called synaptic terminals. Here the impulse stimulates the release of neurotransmitters (Kalat, 2007).

The synaptic terminals do not actually touch the adjacent neurons. There is a slight gap between the synaptic terminals and the adjacent neurons, called the *synaptic gap* or **synapse**. The neurotransmitter is released into the synapse. It then binds to special **receptors**—molecules on the membrane of adjacent neurons. This binding works somewhat the way a key fits into a lock. The binding stimulates the adjacent neuron to initiate the impulse, which then runs through its dendrites and cell body and down its axon to cause the release of more neurotransmitters between it and other neurons.

Many biochemical theories of psychopathology suggest that the amount of certain neurotransmitters in the synapses is associated with specific types of psychopathology (Kalat, 2007). The amount of a neurotransmitter available in the synapse can be affected by two processes. The process of **reuptake** occurs when the initial neuron releasing the neurotransmitter into the synapse reabsorbs the neurotransmitter, decreasing the amount left in the synapse. Another process, **degradation**, occurs when the receiving neuron releases an enzyme into the synapse that breaks down the neurotransmitter into other biochemicals. Degradation also occurs when

FIGURE 7

Neurotransmitters and the Synapse. The neurotransmitter is released into the synaptic gap. There it may bind with the receptors on the postsynaptic membrane.



the releasing neuron provides an enzyme. The reuptake and degradation of neurotransmitters happen naturally. When one or both of these processes malfunction, abnormally high or low levels of neurotransmitter in the synapse result.

Psychological symptoms may also be associated with the number and functioning of the receptors for neurotransmitters on the dendrites (Kalat, 2007). If there are too few receptors or if the receptors are not sensitive enough, the neuron will not be able to make adequate use of the neurotransmitter available in the synapse. If there are too many receptors or if they are too sensitive, the neuron may be overexposed to the neurotransmitter that is in the synapse. Within the neuron, a complex system of biochemical changes takes place as the result of the presence or absence of neurotransmitters. Psychological symptoms may be the consequence of malfunctioning in neurotransmitter systems; also, psychological experiences may cause

changes in neurotransmitter system functioning (Kalat, 2007).

Scientists have identified more than 100 different neurotransmitters. *Serotonin* is a neurotransmitter that travels through many key areas of the brain, affecting the function of those areas. You will see throughout this book that dysfunction in the system regulating serotonin is a transdiagnostic risk factor, associated with several different types of psychopathology. It plays an important role in emotional well-being, particularly in depression and anxiety, and in dysfunctional behaviors, such as aggressive impulses (Belmaker & Agam, 2008).

Dopamine is a prominent neurotransmitter in those areas of the brain associated with our experience of reinforcements or rewards, and it is affected by substances, such as alcohol, that we find rewarding (Ruiz, Strain, & Langrod, 2007). Dopamine also is important to the functioning of muscle systems and plays a role in disorders involving control over muscles, such as Parkinson's disease. Thus, dopamine dysfunction is also a transdiagnostic risk factor.

Norepinephrine (also known as noradrenaline) is a neurotransmitter produced mainly by neurons in the brain stem. Two well-known drugs, cocaine and amphetamine, prolong the action of norepinephrine by slowing its reuptake process. Because of the delay in reuptake, the receiving neurons are activated for a longer period of time, which causes the stimulating psychological effects of these drugs (Ruiz et al., 2007). Conversely, when there is too little norepinephrine in the brain, the person's mood is depressed. Another prominent neurotransmitter is gamma-aminobutyric acid, or GABA, which inhibits the action of other neurotransmitters. Certain drugs have a tranquilizing effect because they increase the inhibitory activity of GABA. GABA is thought to play an important role in anxiety symptoms, so one contributor to Steven Hayes's anxiety could be a dysfunction in his GABA system (Kalivas & Volkow, 2005).

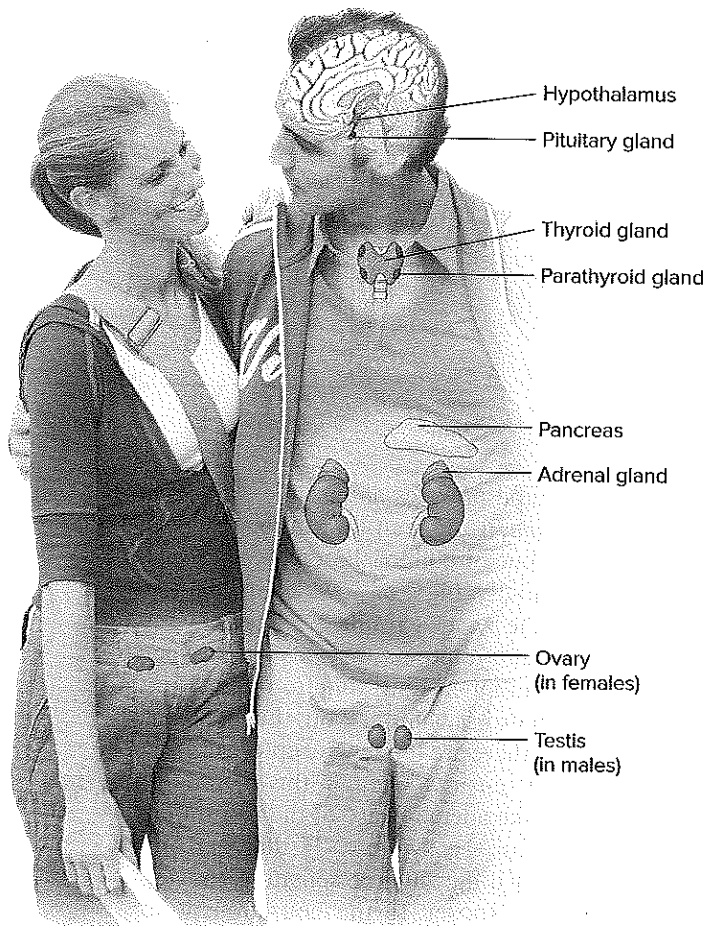
The Endocrine System

Other biochemical theories of psychopathology focus on the body's **endocrine system** (Figure 8). This system of glands produces chemicals called hormones, which are released directly into the blood. A **hormone** carries messages throughout the body, potentially affecting a person's mood, level of energy, and reaction to stress (Kalat, 2007). One of the major endocrine glands, the **pituitary**, has been called the *master gland* because it produces the largest number of different hormones and controls the secretion of other endocrine glands. It lies just below the hypothalamus.

The relationship between the pituitary gland and the hypothalamus illustrates the complex interactions between the endocrine and central nervous systems. For example, in response to stress (fear, anxiety, pain, and so forth), neurons in the hypothalamus secrete a substance called corticotropin-release factor (CRF). CRF is carried from the hypothalamus to the pituitary through a channel-like structure. The CRF stimulates the pituitary to release the body's major stress hormone, adrenocorticotrophic hormone (ACTH). ACTH, in turn, is carried by the bloodstream to the adrenal glands and to various other organs of the body, causing the

FIGURE 8

The Endocrine System. The hypothalamus regulates the endocrine system, which produces most of the major hormones of the body.



Source: From King, *Experience Psychology*, 2e. Copyright © 2013 McGraw-Hill Higher Education. Reprinted by permission. Photo: © PhotoAlto/PunchStock RF

release of about 30 hormones, each of which plays a role in the body's adjustment to emergency situations (Sapolsky, 2007).

As we will discuss in the chapters, "Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders" and "Mood Disorders and Suicide," some theories of anxiety and depression suggest that these disorders result from dysregulation, or malfunctioning, of a system called the *hypothalamic-pituitary-adrenal axis* (or HPA axis). People who have a dysregulated HPA axis may have abnormal physiological reactions to stress that make it more difficult for them to cope with the stress, resulting in symptoms of anxiety and depression.

The proper working of the neurotransmitter and endocrine systems requires a delicate balance, and many forces can upset this balance. For example, chronic stress can cause dysregulation in neurotransmitter and endocrine systems that persists even after the stress has subsided.

Genetic Abnormalities

Behavioral genetics, the study of the genetics of personality and abnormality, is concerned with two questions: (1) To what extent are behaviors or behavioral tendencies inherited? and (2) What are the processes by which genes affect behavior (Loehlin, 2009)?

Let us begin by reviewing the basics of genetics. At conception, the fertilized embryo has 46 chromosomes, 23 from the female egg and 23 from the male sperm, making up 23 pairs of chromosomes. One of these pairs is referred to as the sex chromosomes because it determines the sex of the embryo: The XX combination results in a female embryo, and the XY combination results in a male embryo. The mother of an embryo always contributes an X chromosome, and the father can contribute either an X or a Y.

Alterations in the structure or number of chromosomes can cause major defects. Down syndrome, which is characterized by mental retardation, heart malformations, and facial features such as a flat face, a small nose, protruding lips and tongue, and slanted eyes, results when chromosome 21 is present in triplicate instead of as the usual pair.

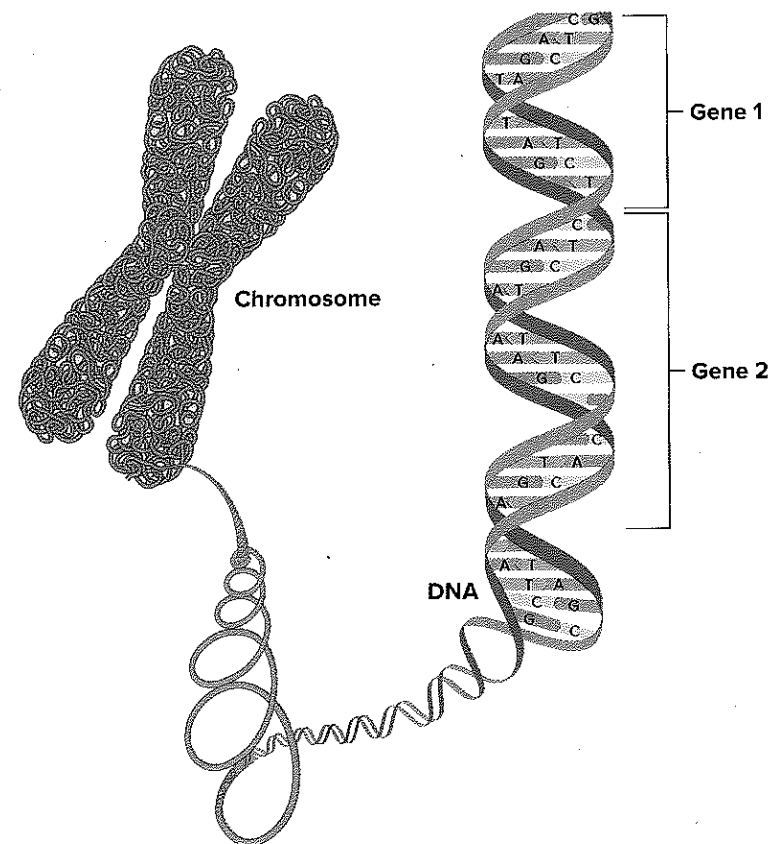
Chromosomes contain individual genes, which are segments of long molecules of deoxyribonucleic acid (DNA; Figure 9). Genes give coded instructions to cells to perform certain functions, usually to manufacture certain proteins. Genes, like chromosomes, come in pairs. One half of the pair comes from the mother, and the other half from the father.

Abnormalities in genes are much more common than major abnormalities in the structure or number of chromosomes.

For example, as noted earlier, the neurotransmitter serotonin appears to play a role in depression. One gene that influences the functioning of serotonin systems in the brain is the serotonin transporter gene. Every gene has two alleles, or coding sequences. Alleles for the serotonin transporter gene can be either short (s) or long (l). Thus, any given individual could have two short alleles (s/s genotype), two long alleles (l/l genotype), or one short and one long allele (s/l genotype). Some studies have suggested that the presence of at least one s allele on the serotonin transporter gene may increase an individual's chance of developing depression (Levinson, 2006).

FIGURE 9

Chromosome. Chromosomes consist of individual genes, long molecules of deoxyribonucleic acid (DNA).



Source: www.accessexcellence.org/AB/GG/genes.html.

Although you may often hear of scientists having discovered “the gene” for a major disorder, most disorders are associated not with a single abnormal gene but with multiple abnormal genes. Each of these altered genes may make only a partial contribution to vulnerability for the disorder, some greater than others. But when a critical number of these altered genes come together, the individual may develop the disorder. This is known as a multi-gene, or **polygenic**, process—it takes multiple genetic abnormalities coming together in one individual to create a specific disorder. A number of physiological disorders, such as diabetes, coronary heart disease, epilepsy, and cleft lip and palate, result from such polygenic processes. Most genetic models of the major types of mental disorder are also polygenic. In the case of depression, the presence of at least one *s* allele increases the likelihood that an individual will have depression but probably is not sufficient to cause it. Rather, a combination of genetic abnormalities is thought to contribute to depression (Kaufman et al., 2004).

Interactions Between Genes and Environment

Genetic factors and the environment interact in a number of ways to influence our behaviors (Ulbricht & Neiderhiser, 2009). First, genetic factors can influence the kinds of environments we choose, which then reinforce our genetically influenced personalities and interests. Consider a startling example that involves identical twins, who have 100 percent of their genes in common. Jim Lewis and Jim Springer were identical twins reunited at the age of 39 after being separated since infancy (Holden, 1980). To their shock, both had married and later divorced women named Linda. Their second wives were both named Betty. Both had sons named James Allan and dogs named Toy. Both chain-smoked Salem cigarettes, worked as sheriffs’ deputies, drove Chevrolets, chewed their fingernails, enjoyed stock car racing, had basement workshops, and had built circular white benches around trees in their yards.

Could there possibly be genes for marrying women named Betty or for having basement workshops that account for the similarities between these twins, who had never before met each other? Genetic researchers think not. Instead, people with identical genes may have similar temperaments and talents that cause them to choose similar environments (Bouchard & Loehlin, 2001; Johnson, McGue, Krueger, & Bouchard, 2004). For example, both of the Jim twins may have woodworking talent that causes them to build workshops in their basements and circular benches in their yards.

Most examples of genes influencing our choices of environment are not as startling as in the case of



Studies of identical twins reared apart offer researchers many opportunities to study the relationship of genes and environment. Lily MacLeod and Gillian Shaw were born in China but raised by different adoptive families in Canada where researchers are exploring these factors. In their case, the girls continue to be raised by different parents who have agreed to let them grow up together as sisters thereby creating a new form of blended family arrangement. © Photo by Carlos Osorio/Toronto Star via Getty Images

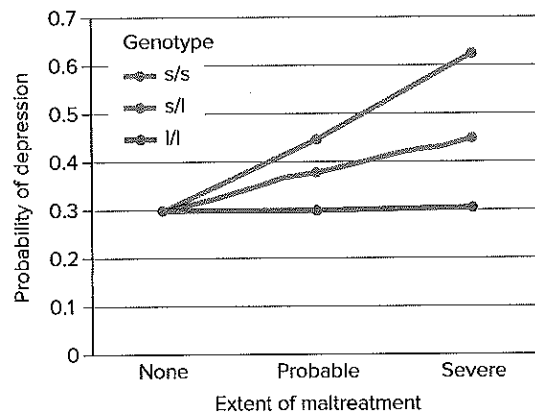
the Jim twins, but such influences may be important in producing psychological symptoms. For example, children with tendencies toward aggression and impulsive behavior, both of which appear to be influenced by genetic factors, tend to choose friends who encourage their aggressive and impulsive behaviors and provide opportunities to engage in antisocial acts (Dishion & Patterson, 1997).

Second, the environment may act as a catalyst for a genetic tendency. For example, as noted earlier, the presence of at least one *s* allele on the serotonin transporter gene may increase an individual’s chance of developing depression, but it does not determine whether the individual will develop depression. Researchers Avshalom Caspi, Terri Moffitt, and colleagues (2003) found that individuals who carried at least one *s* allele for the serotonin transporter gene were at increased risk for depression as adults only if they had a history of being maltreated as young children (Figure 10). Among individuals with no history of maltreatment, their genotype for the serotonin transporter gene had no relationship to depression. Those with the *s/l* genotype showed a greater probability of depression if they had been maltreated, and those with the *s/s* genotype showed an even greater probability of depression if they had been maltreated. Some subsequent studies have failed to replicate the findings of Caspi and colleagues (see Risch et al., 2009), but this intriguing study inspired many other researchers to search for gene-environment interactions.

Third, the fascinating line of research called **epigenetics** indicates that environmental conditions can affect the expression of genes. DNA can be chemically modified by different environmental

FIGURE 10**Gene by Environment Interaction.**

In this study, the interaction of certain genes and a history of maltreatment predicted the probability of depression.



Source: Adapted from Caspi et al., 2003.

conditions, resulting in genes being turned on or off. As a result, cells, tissues, and organs are altered in their development. Epigenetics is the study of heritable changes in the expression of genes without change in the gene sequence.

Researcher Michael Meaney studied the effects of epigenetic processes on stress responses in rats (Hellstrom & Meaney, 2010; Meaney, 2010). Mother rats typically lick and groom their infants (called pups), but the amount of licking and grooming varies from one mother to another. Pups who are licked and groomed more tend to grow into adult rats that are less fearful and show more modest physiological responses to stress, compared to pups who are licked and groomed less. In addition, when the biological offspring of mothers who lick and groom less are raised by mothers who lick and groom more, they are less fearful and physiologically reactive to stress than when they are raised by their own mothers; and when the biological offspring of mothers who lick and groom more are raised by mothers who lick and groom less, they are more fearful and physiologically reactive to stress than when they are raised by their own mothers. This pattern of results suggests that the mother's behavior influences the development of the pups' reactions to stress (Meaney, 2010). The amount that mother rats lick and groom pups in the first week of life affects the release of certain hormones in the pup. These hormones in turn affect the expression

of a gene that influences the development of the hippocampus (refer to Figure 6), an area of the brain that influences the stress response. So the mother's behavior toward the pup during the first week of life affects the expression of key genes, changing the development of an area of the brain and, in turn, influencing the pups' behavioral and physiological responses to stress.

The role of epigenetics in psychopathology in humans is only beginning to be studied, but it likely is very important. For example, epigenetic processes could help explain how identical twins who share the same DNA sequence could differ in their expression of a disorder. Both twins may carry genes that increase their risk for a disorder, but if the environments of the twins differ during fetal development or in critical stages of development after birth, the expression of these genes may differ, leading one twin but not the other to develop the disorder (see the chapter, "Schizophrenia Spectrum and Other Psychotic Disorders").

Drug Therapies

Most of the biological treatments for abnormality are drug treatments (Table 1). These drugs are thought to relieve psychological symptoms by improving the functioning of neurotransmitter systems.

Antipsychotic drugs help reduce the symptoms of psychosis, which include hallucinations (unreal perceptual experiences) and delusions (fantastic, unrealistic beliefs). The first group of antipsychotic drugs was the *phenothiazines* (Valenstein, 1998). These drugs have been extremely helpful in reducing psychotic symptoms, but they carry a number of dangerous side effects. These side effects include severe sedation, visual disturbances, and *tardive dyskinesia*, a neurological disorder characterized by involuntary movements of the tongue, face, mouth, or jaw (see the chapter, "Schizophrenia Spectrum and Other Psychotic Disorders"). Fortunately, newer medications, referred to as the atypical antipsychotics, seem to be effective in treating psychosis without inducing some of the same side effects (see the chapter, "Schizophrenia Spectrum and Other Psychotic Disorders").

Antidepressant drugs reduce symptoms of depression (sadness, low motivation, and sleep and appetite disturbance). The most frequently used antidepressants, the *selective serotonin reuptake inhibitors* (SSRIs; see the chapter, "Mood Disorders and Suicide"), affect the serotonin neurotransmitter system. Some of the newest antidepressant drugs, *selective serotonin-norepinephrine reuptake*

TABLE 1 Drug Therapies for Mental Disorders

These are the major types of drugs used to treat several kinds of mental disorders.

Type of Drug	Purpose	Examples
Antipsychotic drugs	Reduce symptoms of psychosis (loss of reality testing, hallucinations, delusions)	Thorazine (a phenothiazine) Haldol (a butyrophenone) Clozaril (an atypical antipsychotic)
Antidepressant drugs	Reduce symptoms of depression (sadness, loss of appetite, sleep disturbances)	Parnate (an MAO inhibitor) Elavil (a tricyclic) Prozac (a selective serotonin reuptake inhibitor)
Lithium	Reduces symptoms of mania (agitation, excitement, grandiosity)	Lithobid Cibalith-S
Antianxiety drugs	Reduce symptoms of anxiety (fearfulness, worry, tension)	Nembutal (a barbiturate) Valium (a benzodiazepine)

inhibitors (SNRIs; see the chapter, “Mood Disorders and Suicide”), are designed to target both serotonin and norepinephrine. Common side effects of SSRIs and SNRIs include nausea, diarrhea, headache, tremor, daytime sedation, sexual dysfunction, and agitation. Older classes of antidepressants include the *tricyclic antidepressants* and the *monoamine oxidase inhibitors* (see the chapter, “Mood Disorders and Suicide”).

Lithium is a metallic element present in the sea, in natural springs, and in animal and plant tissue. It is widely used as a mood stabilizer, particularly in the treatment of bipolar disorder, which involves swings back and forth from depression to mania (highly elevated mood, irritability, grandiosity, and involvement in dangerous activities). Lithium’s significant side effects include extreme nausea, blurred vision, diarrhea, tremors, and twitches (see the chapter, “Mood Disorders and Suicide”). Other drugs, known as the **anticonvulsants**, are also used in the treatment of mania (see details in the chapter, “Mood Disorders and Suicide”) and have fewer side effects than lithium.

The first group of **antianxiety drugs** was the *barbiturates*, introduced at the beginning of the twentieth century. Although these drugs are effective in inducing relaxation

and sleep, they are highly addictive, and withdrawal from them can cause life-threatening symptoms such as increased heart rate, delirium, and convulsions.

The other major class of anxiety-reducing drugs, the *benzodiazepines*, appears to reduce the symptoms of anxiety without interfering substantially with an individual’s ability to function in daily life. The most frequent use of these drugs is as sleeping pills. As many as 70 million prescriptions for benzodiazepines are written each year in the United States. Unfortunately, these drugs are also highly addictive, and up to 80 percent of people who take them for 6 weeks or longer show withdrawal symptoms, including heart rate acceleration, irritability, and profuse sweating.

Electroconvulsive Therapy and Newer Brain Stimulation Techniques

An alternative to drug therapies in the treatment of some disorders is **electroconvulsive therapy**, or **ECT**. ECT was introduced in the early twentieth century as a treatment for schizophrenia. Eventually, clinicians found that ECT is effective for treating depression but not for treating schizophrenia.

ECT consists of a series of treatments in which a brain seizure is induced by passing electrical current through the patient’s brain. Patients are first anesthetized and given muscle relaxants so that they are not conscious when they have the seizure and their muscles do not jerk violently during it. Metal electrodes are taped to the head, and a current



Media stories about so-called wonder drugs, including Prozac, often tout their ability to alleviate a wide range of problems beyond the treatment of serious psychological disorders. © AP Photo/Darron Cummings

of 70 to 150 volts is passed through one side of the brain for about ½ second. Patients typically have a convulsion that lasts about 1 minute. The full series of treatments consists of 6 to 12 sessions. The side effects of ECT include confusion and memory loss (Sackeim et al., 2007).

More recently, researchers have been developing alternative techniques for stimulating the brain that can be more targeted and that have fewer side effects (Slotema, Blom, Hoek, & Sommer, 2010). One procedure, known as *repetitive transcranial magnetic stimulation (rTMS)*, exposes patients to repeated, high-intensity magnetic pulses focused on particular brain structures. In the procedure known as *deep brain stimulation*, electrodes are surgically implanted in specific areas of the brain. These electrodes are then connected to a pulse generator placed under the skin that delivers stimulation to the specific brain areas. Similarly, in *vagus nerve stimulation*, electrodes are attached to the vagus nerve, a part of the nervous system that carries information to several areas of the brain, including the hypothalamus and amygdala. These electrodes are connected to a pulse generator that delivers stimulation to the vagus nerve, which in turn travels to targeted areas of the brain.

Some studies have suggested that these newer brain stimulation techniques can be helpful in relieving the symptoms of depression and auditory hallucinations (hearing voices that aren't there) in patients (Slotema et al., 2010). Electrical stimulation of neurons can result in long-term changes in neurotransmission across synapses. Patients who receive these newer brain stimulation treatments report few side effects—usually only minor headaches treatable by aspirin. Thus, there is a great deal of hope that these techniques will be effective and safe alternative therapies, particularly for people who do not respond to drug therapies and may not be able to tolerate ECT.

Psychosurgery

In the chapter, "Looking at Abnormality," we describe theories suggesting that prehistoric peoples performed crude brain surgery, called trephination, on people with mental disorders in order to release the evil spirits causing the disorders. In modern times, brain surgery did not become a mode of treatment for mental disorders until the early twentieth century. A Portuguese neurologist, Antonio de Egas Moniz, introduced a procedure in 1935 in which the frontal lobes of the brain are severed from the lower centers of the brain in people with psychosis. This

procedure eventually developed into the procedure known as prefrontal lobotomy. Although Moniz won the Nobel Prize for his work, prefrontal lobotomies eventually were criticized as a cruel and ineffective means of treating psychosis (Valenstein, 1986). Patients often would experience severe and permanent side effects, including either an inability to control impulses or an inability to initiate activity, extreme listlessness and loss of emotions, seizures, and sometimes even death.

By the 1950s, the use of **psychosurgery** had declined dramatically, especially in countries outside the United States. Today, psychosurgery is used rarely, and only with people who have severe disorders that do not respond to other forms of treatment. Modern neurological assessment and surgical techniques make psychosurgery more precise and safer than it was formerly, although it remains highly controversial, even among professionals. Neurosurgeons attempt to lesion, or destroy, minute areas of the brain thought to be involved in a patient's symptoms. One of the greatest remaining problems in psychosurgery, however, is that we do not yet know what areas of the brain are involved in producing most psychiatric symptoms, and it is likely that many areas of the brain are involved in any given disorder.

Assessing Biological Approaches

The biological therapies have revolutionized the treatment of people with psychological disorders. We entered the twentieth century able only to house and comfort people with severe psychological disturbances. In the twenty-first century, we are able to treat many of these people so successfully that they can lead normal lives, thanks in part to the biological therapies that have been developed in recent decades.

Many people find biological theories appealing because they seem to erase any blame or responsibility that might be placed on the sufferer of a disorder. Indeed, many organizations that advocate for people with mental disorders argue that mental disorders should be seen as medical diseases, just like diabetes or high blood pressure. They argue that people who suffer from these disorders simply must accept that they have a disease and obtain the appropriate medical treatment.

Despite their current popularity, however, the biological therapies are not a panacea. They do not work for everyone. Indeed, some people with psychological disorders do not respond to any of the drugs or other biological treatments currently

available. In addition, for some disorders, such as phobias (see the chapter, “Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders”), psychotherapy works better than drug therapies in alleviating symptoms.

Most of the biological therapies have significant side effects, as other chapters of this book will describe. Often, these side effects are tolerable, and people endure them because the drugs offer relief from their psychological disorder. For some people, however, the side effects are worse than the disorder itself. For yet others, the side effects can be dangerous or even deadly.

Some critics of biological theories and drug therapies worry that people will turn to the drugs rather than deal with the issues in their lives that are causing or contributing to their psychological problems. Critics also argue that biological theories often ignore the role of environmental and psychological processes in biological functioning. Finally, recent research suggests that individuals who attribute their mental health problems to biological causes are more pessimistic about their prognosis for recovery than are individuals who attribute their mental health problems to nonbiological causes (Lebowitz & Ahn, 2012).

PSYCHOLOGICAL APPROACHES

We turn now to a discussion of different psychological approaches to understanding and treating abnormality. We begin with behavioral and cognitive approaches, which are the focus of much research in psychopathology. We then discuss psychodynamic and humanistic approaches, family systems approaches, and third-wave approaches.

Behavioral Approaches

Behavioral approaches focus on the influence of reinforcements and punishments in producing behavior. The two core principles or processes of learning according to behaviorism are classical conditioning and operant conditioning. Learning can also occur through modeling and observational learning.

Classical Conditioning

Around the turn of the twentieth century, Ivan Pavlov, a Russian physiologist, was conducting experiments on the salivary glands of dogs when he made discoveries that would revolutionize psychological theory. Not surprisingly, his dogs would

salivate when Pavlov or an assistant put food in their mouths. Pavlov noticed that, after a while, the dogs would salivate when he or his assistant simply walked into the room.

Pavlov had paired a previously neutral stimulus (himself) with a stimulus that naturally leads to a certain response (the dish of food, which leads to salivating), and eventually the neutral stimulus (Pavlov) was able to elicit that response (salivation). This process gained the name **classical conditioning**. The stimulus that naturally produces a response is the **unconditioned stimulus (US)**, and the response created by the unconditioned stimulus is the **unconditioned response (UR)**. Thus, in Pavlov’s experiments, the dish of food was the US, and salivation in response to this food was the UR. The previously neutral stimulus is the **conditioned stimulus (CS)**, and the response that it elicits is the **conditioned response (CR)**. Thus, Pavlov was the CS, and when the dogs salivated in response to seeing him, this salivation became the CR (Figure 11).

Classical conditioning has been used to explain people’s seemingly irrational responses to a host of neutral stimuli. For example, a college student who previously failed a test in a particular classroom may break out in a cold sweat when she enters that room again. This response is the result of classical conditioning. The room has become a conditioned stimulus, eliciting a response of anxiety, because it was paired with an unconditioned stimulus (failing an exam) that elicited anxiety.

Operant Conditioning

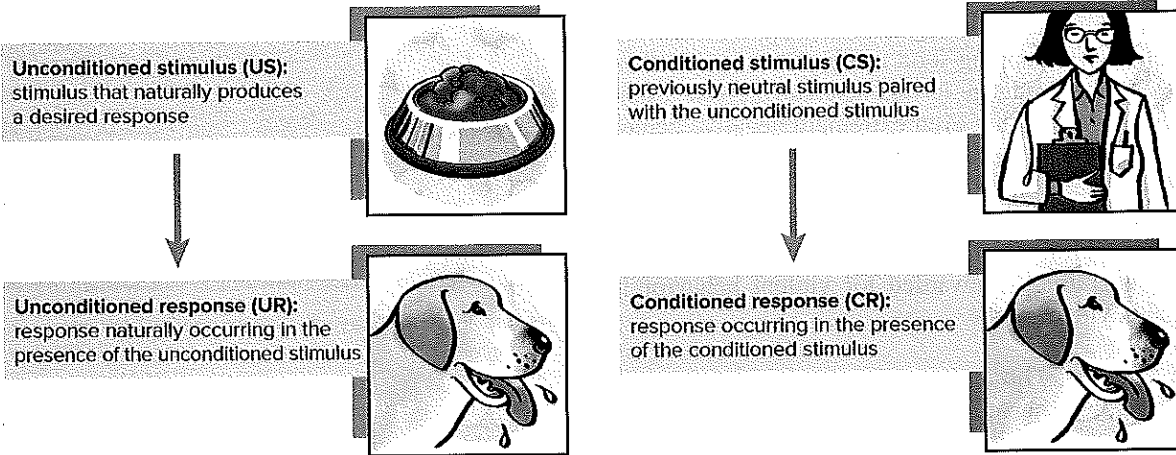
E. L. Thorndike observed that behaviors that are followed by a reward are strengthened, whereas behaviors that are followed by a punishment are weakened. This simple but important observation, which Thorndike labeled the law of effect, led to the development of the principles of **operant conditioning**—the shaping of behaviors by providing rewards for desired behaviors and providing punishments for undesired behaviors.

In the 1930s, B. F. Skinner showed that a pigeon will learn to press on a bar if pressing it is associated with the delivery of food and will learn to avoid pressing another bar if pressing it is associated with an electric shock. Similarly, a child will learn to make his bed if he receives a hug and a kiss from his mother each time he makes the bed, and he will learn to stop hitting his brother if he doesn’t get to watch his favorite television show every time he hits his brother.

In operant conditioning, behaviors will be learned most quickly if they are paired with the reward or punishment every time the behavior is

FIGURE 11

Stimulus and Response in Classical Conditioning. Classical conditioning is a major way abnormal behaviors are learned, according to behavioral theories.



emitted. This consistent response is called a *continuous reinforcement schedule*. Behaviors can be learned and maintained, however, on a *partial reinforcement schedule*, in which the reward or punishment occurs only sometimes in response to the behavior. *Extinction*—eliminating a learned behavior—is more difficult when the behavior was learned through a partial reinforcement schedule than when the behavior was learned through a continuous reinforcement schedule. This is because the behavior was learned under conditions of occasional reward, so a constant reward is not needed to maintain the behavior. A good example is gambling behavior. People who frequently gamble are seldom rewarded, but they continue to gamble in anticipation of that occasional, unpredictable win.

Hobart Mowrer's (1939) two-factor model suggests that combinations of classical and operant conditioning can explain the persistence of fears. Initially, people develop fear responses to previously neutral stimuli through classical conditioning. Then, through operant conditioning, they develop behaviors designed to avoid triggers for that fear. For example, a woman may have a fear of bridges developed through classical conditioning: She fell off a bridge into icy waters as a child, and now any time she nears a bridge she feels very anxious. This woman then develops elaborate means of getting around her hometown without having to cross any bridges. Avoiding the bridges reduces her anxiety, and thus her avoidant behavior is reinforced. This woman has developed a *conditioned avoidance response* through operant conditioning. As a result, however, she never

exposes herself to a bridge and never has the opportunity to extinguish her initial fear of bridges. As we shall see, many of the therapeutic techniques developed by behavioral theorists are designed to extinguish conditioned avoidance responses, which can interfere greatly with a person's ability to function in everyday life.

Modeling and Observational Learning

Skinner and other “pure” behaviorists argued that humans and animals learn behaviors only by directly experiencing rewards or punishments for the behaviors. In the 1950s, however, psychologist Albert Bandura argued that people also learn behaviors by watching other people, a view that came to be known as *social learning theory*. First, in **modeling**, people learn new behaviors from imitating the behaviors modeled by important people in their lives, such as their parents. Learning through modeling is more likely to occur when the person modeling the behavior is seen as an authority figure or is perceived to be like oneself. For example, Bandura (1969) argued that children are most likely to imitate the behaviors modeled by their same-sex parent, because this parent is an authority figure and because their same-sex parent seems more similar to them than does their opposite-sex parent.

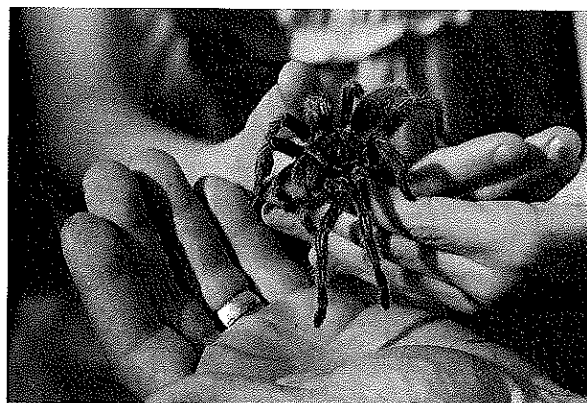
Second, **observational learning** takes place when a person observes the rewards and punishments



Gambling is reinforced by wins only occasionally, but this makes it more difficult to extinguish the behavior.

© Syracuse Newspapers/Dennis Nett / The Image Works

that another person receives for his or her behavior and then behaves in accordance with those rewards and punishments. For example, a child who views her sibling being punished for dropping food on the floor will learn, through observation, the consequences of dropping food on the floor and will be less likely to engage in this behavior herself. Some theorists argue that even extremely negative behaviors, such as teenagers going on a shooting rampage, are also due to observational learning. Teenagers see figures in the media being rewarded for violent behavior with fame and thus learn that behavior. They also are directly rewarded for violent behavior in certain video games.



Behavioral therapy is very effective for treating phobias.

© Vicki Beaver/Alamy

Behavioral Therapies

Behavioral therapies focus on identifying those reinforcements and punishments that contribute to a person's maladaptive behaviors and on changing specific behaviors. The foundation for behavioral therapy is the *behavioral assessment* of the client's problem. The therapist works with the client to identify the specific circumstances that seem to elicit the client's unwanted behavior or emotional responses: What situations seem to trigger anxiety symptoms? When is the client most likely to begin heavy drinking? What types of interactions with other people make the client feel most distressed?

There are many specific techniques for behavior change (Table 2). A mainstay of behavior therapy is

systematic desensitization therapy, a gradual method for extinguishing anxiety responses to stimuli and the maladaptive behavior that often accompanies this anxiety. In systematic **desensitization**, the client first learns relaxation exercises and then develops a hierarchy of feared stimuli, ranging from stimuli that would cause him or her only mild anxiety to stimuli that would cause severe anxiety or panic. A person with a snake phobia might put at the bottom of his hierarchy "imagining a snake in a closed container across the room." A little further up on the hierarchy might be "watching someone else handle a snake." At the top of his hierarchy

TABLE 2 Behavior Change Techniques

These are some of the methods used in behavior therapy.

Label	Description
Removal of reinforcements	Removes the individual from the reinforcing situation or environment
Aversion therapy	Makes the situation or stimulus that was once reinforcing no longer reinforcing
Relaxation exercises	Help the individual voluntarily control physiological manifestations of anxiety
Distraction techniques	Help the individual temporarily distract from anxiety-producing situations; divert attention from physiological manifestations of anxiety
Flooding , or implosive , therapy	Exposes the individual to the dreaded or feared stimulus while preventing avoidant behavior
Systematic desensitization	Pairs the implementation of relaxation techniques with hierarchical exposure to the aversive stimulus
Response shaping through operant conditioning	Pairs rewards with desired behaviors
Behavioral contracting	Provides rewards for reaching proximal goals
Modeling and observational learning	Models desired behaviors, so that the client can learn through observation

might be “touching a snake myself.” Then the therapist would help him proceed through this hierarchy, starting with the least-feared stimulus. He would be instructed to vividly imagine the feared stimulus, or even be exposed to the feared stimulus for a short period, while implementing relaxation exercises to control the anxiety. When he gets to the point where he can imagine or experience the least-feared stimulus without feeling anxious, he moves on to the next-most-feared stimulus, imagining or experiencing it while implementing relaxation exercises. This process continues until he reaches the most-feared stimulus on the list and is able to experience this stimulus without anxiety. Thus, by the end of systematic desensitization therapy, a person with a snake phobia should be able to pick up and handle a large snake without becoming anxious.

Often, systematic desensitization therapy is combined with modeling—the client might watch as the therapist picks up a snake, pets it, and plays with it, observing that the therapist is not afraid, is not bitten or choked, and seems to enjoy playing with the snake. Eventually, the client is encouraged to imitate the therapist’s behaviors with and reactions to the snake. In some cases, people undergoing systematic desensitization are asked only to imagine experiencing the feared stimuli. In other cases, they are asked to experience these stimuli directly, actually touching and holding the snake, for example. This latter method, known as *in vivo* exposure, generally has stronger results than exposure only in the client’s imagination (Follette & Hayes, 2000).

Assessing Behavioral Approaches

Behavioral theorists set the standard for scientifically testing hypotheses about how normal and abnormal behaviors develop. The hypotheses developed from these theories are precise, and the studies that have been done to test these hypotheses are rigorously controlled and exact. As we will see in other chapters, these studies have provided strong support for behavioral explanations of many types of abnormal behavior, particularly anxiety disorders such as phobias and panic disorder (Newman et al., 2011). Similarly, the effectiveness of behavior therapies has been extensively and systematically supported in controlled studies (Follette & Hayes, 2000).

The behavioral theories do have limitations. How behavioral principles could account for some disorders, such as schizophrenia, is unclear. Also, most evidence for behavioral theories is from laboratory studies, but, as we discuss in the chapter, “The Research Endeavor,” lab results do not always apply to the complexity of the real world. Further, the behavioral theories have been

criticized for not recognizing free will in people’s behaviors—the active choices people make to defy the external forces acting on them.

Cognitive Approaches

Cognitive theories argue that it is not simply rewards and punishments that motivate human behavior. Instead, our **cognitions**—thoughts or beliefs—shape our behavior and the emotions we experience.

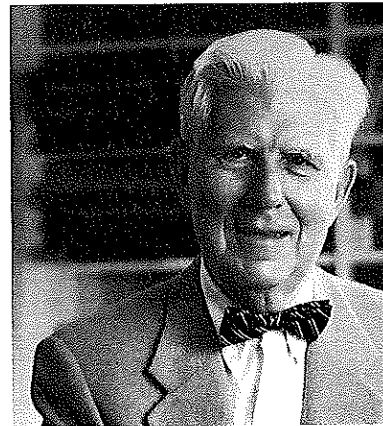
When something happens to us, we ask ourselves why that event happened (Abramson, Metalsky, & Alloy, 1989; Abramson, Seligman, & Teasdale, 1978). The answer to this “why” question is our **causal attribution** for the event. The attributions we make for events can influence our behavior because they impact the meaning we give to events and our expectations for similar events in the future.

The attributions we make for our own behavior can affect our emotions and self-concept. For example, if we act rudely toward another person and attribute this behavior to situational factors (the other person acted rudely first), we may feel slightly guilty but we may also feel justified. However, if we attribute our rude behavior to personality factors (I am a rude person), then we may feel guilty and diminish our self-esteem.

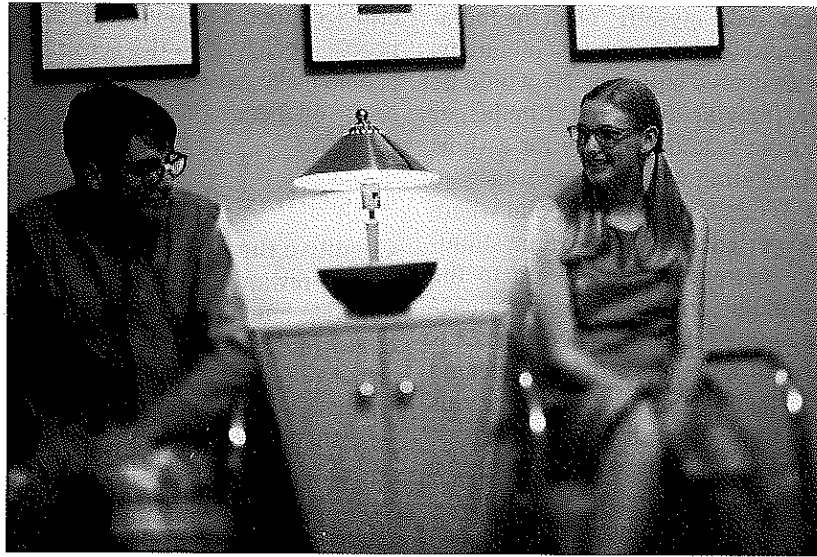
In addition to making attributions for specific events, we have broad beliefs about ourselves, our relationships, and the world. These can be either positive and helpful to us or negative and destructive. These broad beliefs are called **global assumptions**. Two prominent proponents of this view are Albert Ellis and Aaron Beck. They argued that most negative emotions or maladaptive behaviors are the result of one or more of the dysfunctional global assumptions that guide a person’s life. Some of the most common dysfunctional assumptions are these:

1. I should be loved by everyone for everything I do.
2. It is better to avoid problems than to face them.
3. I should be completely competent, intelligent, and achieving in all I do.
4. I must have perfect self-control.

People who hold such beliefs often will react to situations with irrational thoughts and behaviors and negative emotions. For example, someone who believes that she must be completely competent, intelligent, and achieving in all areas of her life will be



Aaron Beck is one of the founders of cognitive theories of psychopathology.
Courtesy Aaron Beck.



A socially anxious client may be given the behavioral assignment to talk with a stranger at a party. © Ingram Publishing RF

extremely upset by even minor failures or unpleasant events. If she were to score poorly on an exam, she may have thoughts such as “I am a total failure. I will never amount to anything. I should have gotten a perfect score on that exam.”

Cognitive Therapies

Cognitive therapies help clients identify and challenge their negative thoughts and dysfunctional belief systems. Cognitive therapists also help clients learn more effective problem-solving techniques for dealing with the concrete problems in their lives. Cognitive therapy is designed to be short-term, on the order of 12 to 20 weeks in duration, with one or two sessions per week (Beck, Rush, Shaw, & Emery, 1979). There are three main goals in cognitive therapy (Beck, 1976):

1. Assist clients in identifying their irrational and maladaptive thoughts. A client might be asked to keep a diary of thoughts she has whenever she feels anxious.
2. Teach clients to challenge their irrational or maladaptive thoughts and to consider alternative ways of thinking. A client might be asked to evaluate the evidence for a belief or to consider how other people might think about a difficult situation.
3. Encourage clients to face their worst fears about a situation and recognize ways they could cope.

Cognitive techniques are often combined with behavioral techniques in what is known as **cognitive-behavioral therapy**, or **CBT**. The therapist may use behavioral assignments to help the client

gather evidence concerning his or her beliefs, to test alternative viewpoints about a situation, and to try new methods of coping with different situations. These assignments are presented to the client as ways of testing hypotheses and gathering information that will be useful in therapy regardless of the outcome. The assignments can also involve trying out new skills, such as skill in communicating more effectively, between therapy sessions.

The following case study illustrates how a therapist might use behavioral assignments to provide a depressed student with opportunities to practice new skills and to gather information about thoughts that contribute to negative emotions.

CASE STUDY

A student was unable to complete her degree because she feared meeting with a professor to discuss an incomplete grade she had received in a course. She was quite convinced that the professor would “scream at her” and had been unable to complete a homework assignment to call the professor’s secretary to arrange a meeting. An *in vivo* task was agreed on in which she called the professor from her therapist’s office. Her thoughts and feelings before, during, and after the call were carefully examined. As might be expected, the professor was quite glad to hear from his former student and was pleased to accept her final paper. She was able to see that her beliefs were both maladaptive and erroneous. (Adapted from Freeman & Reinecke, 1995, pp. 203–204)

Assessing Cognitive Approaches

Particularly in studies of mood disorders and anxiety disorders, and increasingly in studies of sexual disorders and substance use disorders, evidence demonstrates the effect of maladaptive cognitions (Joormann, 2008). Further, as we will see in other chapters, cognitive therapies have proven useful in the treatment of these disorders (Hollon & Dimidjian, 2008).

The greatest limitation of the cognitive theories has been the difficulty of proving that maladaptive cognitions precede and cause disorders, rather than being the symptoms or consequences of the disorders. For example, it is clear that depressed people think depressing thoughts. But is this a cause of their depression or a symptom of it? It turns out to be harder than you might think to answer this question definitively.

Psychodynamic Approaches

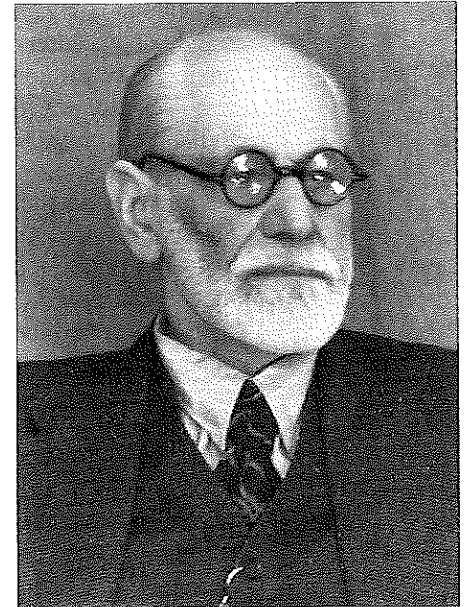
The **psychodynamic theories** of abnormality suggest that all behaviors, thoughts, and emotions, whether normal or abnormal, are influenced to a large extent by unconscious processes (McWilliams & Weinberger, 2003). The psychodynamic theories began with Sigmund Freud in the late nineteenth century and have expanded to include several newer theories. These theories accept many of Freud's basic assumptions about the workings of the human mind but emphasize different processes from those that Freud emphasized.

Freud developed **psychoanalysis**, which refers to (1) a theory of personality and psychopathology, (2) a method of investigating the mind, and (3) a form of treatment for psychopathology (McWilliams & Weinberger, 2003). As we note in the chapter, "Looking at Abnormality," Freud was a Viennese neurologist who became interested in unconscious processes while working with Jean Charcot in Paris in the late nineteenth century. He then returned to Vienna and worked with physician Josef Breuer, most notably on the case of "Anna O."

Anna O. had extensive symptoms of hysteria—physical ailments with no apparent physical cause—including paralysis of the legs and right arm, deafness, and disorganized speech. Breuer attempted to hypnotize Anna O., hoping he could cure her symptoms by suggestion. Anna O. began to talk about painful memories from her past, which apparently were tied to the development of her hysterical symptoms. She expressed a great deal of distress about these memories, but following the recounting of the memories under hypnosis, many of her symptoms went away. Breuer labeled the

release of emotions connected to these memories **catharsis**, and Anna O. labeled the entire process her "talking cure."

Breuer and Freud suggested that hysteria is the result of traumatic memories that have been repressed from consciousness because they are too painful. They defined **repression** as the motivated forgetting of a difficult experience, such as being abused as a child, or of an unacceptable wish, such as the desire to hurt someone. Repression does not dissolve the emotion associated with the memory or wish. Instead, argued Breuer and Freud, this emotion is "dammed up" and emerges as symptoms.



Sigmund Freud believed that normal and abnormal behaviors are motivated by needs and drives, most of which are unconscious.
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The Id, Ego, and Superego

Freud believed that the two basic drives that motivate human behavior are the sexual drive, which he referred to as **libido**, and the aggressive drive (McWilliams & Weinberger, 2003). The energy from these drives continually seeks to be released but can be channeled or harnessed by different psychological systems. Most of Freud's writings focused primarily on libido (or libidinal drive), so our discussion will do so as well.

According to Freud, three systems of the human psyche that help regulate the libido are the id, the ego, and the superego (McWilliams & Weinberger, 2003). The **id** is the system from which the libido emerges, and its drives and impulses seek immediate release. The id operates by the pleasure principle—the drive to maximize pleasure and minimize pain as quickly as possible.

Freud argued that as children grow older, they become aware that they cannot always quickly satisfy their impulses. A part of the id splits off and becomes the **ego**, the force that seeks to gratify our wishes and needs in ways that remain within the rules of society for their appropriate expression. A preschooler who may wish to suckle at the mother's breast but is aware that this is no longer allowed may satisfy himself with cuddling in his mother's lap.

Freud further argued that the **superego** develops from the ego a little later in childhood. It is the storehouse of rules and regulations for the conduct of behavior that are learned from one's parents and from society. These rules and regulations are in the form of

absolute moral standards. We internalize these moral standards because living according to them reduces anxiety (McWilliams & Weinberger, 2003).

Freud believed that most interactions among the id, ego, and superego occur in the **unconscious**, completely out of our awareness. The **preconscious** is intermediate between the unconscious and the **conscious**. Some material (wishes, needs, or memories) from the unconscious can make its way into the preconscious but rarely reaches the conscious level. Because these unconscious desires are often unacceptable to the individual or society, they cause anxiety if they seep into the conscious, prompting the ego to push them back into the unconscious. This pushing of material back into the unconscious is repression (McWilliams & Weinberger, 2003).

Freud—and later his daughter, Anna Freud—described certain strategies, or **defense mechanisms**,

that the ego uses to disguise or transform unconscious wishes. The particular defense mechanisms that a person regularly uses shape his or her behavior and personality. Table 3 provides a list and examples of the basic defense mechanisms. Everyone uses defense mechanisms to a degree, because everyone must protect against awareness of unacceptable wishes and conform to societal norms. When a person's behavior becomes ruled by defense mechanisms or when the mechanisms themselves are maladaptive, however, these mechanisms can result in abnormal, pathological behavior.

Psychosexual Stages

Psychoanalytic theory argues that the nurturance a child receives from his or her early caregivers strongly influences personality development. Freud proposed that as children develop they pass through a series of universal **psychosexual stages**. In each

TABLE 3 Defense Mechanisms

These defense mechanisms were described by Sigmund and Anna Freud.

Defense Mechanism	Definition	Example
Regression	Retreating to a behavior of an earlier developmental period to prevent anxiety and satisfy current needs	A woman abandoned by her lover curls up in a chair, rocking and sucking her fingers.
Denial	Refusing to perceive or accept reality	A husband whose wife recently died denies she is gone and actively searches for her.
Displacement	Discharging unacceptable feelings against someone or something other than the true target of these feelings	A woman who is angry at her children kicks a dog.
Rationalization	Inventing an acceptable motive to explain unacceptably motivated behavior	A soldier who killed innocent civilians rationalizes that he was only following orders.
Intellectualization	Adopting a cold, distanced perspective on a matter that actually creates strong, unpleasant feelings	An emergency room physician who is troubled by seeing young people with severe gunshot wounds every night has discussions with colleagues that focus only on the technical aspects of treatment.
Projection	Attributing one's own unacceptable motives or desires to someone else	A husband who is sexually attracted to a colleague accuses his wife of cheating on him.
Reaction formation	Adopting a set of attitudes and behaviors that are the opposite of one's true dispositions	A man who cannot accept his own homosexuality becomes extremely homophobic.
Identification	Adopting the ideas, values, and tendencies of someone in a superior position in order to elevate self-worth	Prisoners adopt the attitudes of their captors toward other prisoners.
Sublimation	Translating wishes and needs into socially acceptable behavior	An adolescent with strong aggressive impulses train to be a boxer.

stage, sexual drives are focused on the stimulation of certain body areas, and particular psychological issues can arouse anxiety in the child. The responses of caregivers, usually parents, to the child's attempts to satisfy basic needs and wishes can greatly influence whether a given stage is negotiated successfully. If the parents are not appropriately responsive, helping the child learn acceptable ways of satisfying and controlling his or her drives and impulses, the child can become fixated at a stage, trapped in the concerns and issues of that stage and never successfully moving beyond that stage and through the subsequent stages.

According to Freud, the earliest stage of life, the *oral stage*, lasts for the first 18 months following birth. In the oral stage, libidinal impulses are best satisfied through stimulation of the mouth area, usually through feeding or sucking. At this stage, the child is entirely dependent on caregivers for gratification, and the central issues of this stage are issues of one's dependence and the reliability of others. If the child's caregiver, typically the mother, is not adequately available to the child, he or she can develop deep mistrust and fear of abandonment. Children fixated at the oral stage develop an "oral personality," characterized by excessive dependence on others but mistrust of others' love. A number of habits focused on the mouth area—for example, smoking or excessive drinking and eating—are said to reflect an oral character.

The *anal stage* lasts from about 18 months to 3 years of age. During this phase, the focus of gratification is the anus. The child becomes very interested in toilet activities, particularly the passing and retaining of feces. Parents can cause a child to become fixated at this stage by being too harsh or critical during toilet training. People with an "anal personality" are said to be stubborn, over controlling, stingy, and too focused on orderliness and tidiness.

During the *phallic stage*, lasting from about age 3 to age 6, the focus of pleasure is the genitals. During this stage, one of the most important conflicts of sexual development occurs, and it occurs differently for boys and girls. Freud believed that boys become sexually attracted to their mother and hate their father as a rival. Freud labeled this the *Oedipus complex*, after the character in Greek mythology who unknowingly kills his father and marries his mother. Boys fear that their father will retaliate against them by castrating them. This fear leads them to put aside their desire for their mother and aspire to become like their father. The successful resolution of the Oedipus complex helps instill a strong superego in boys, because it results in boys identifying with their father and their father's value system.

Freud believed that, during the phallic stage, girls recognize that they do not have a penis and are horrified at this discovery. They also recognize that their mother does not have a penis and disdain their mother and all females for this deficit. Girls develop an attraction for their father, in hopes that he will provide the penis they lack. Freud labeled this the *Electra complex*, after the character in Greek mythology who conspires to murder her mother to avenge her father's death. Girls cannot have castration anxiety, because, according to Freud, they feel they have already been castrated. As a result, girls do not have as strong a motivation as boys to develop a superego. Freud argued that females never develop superegos as strong as those of males and that this leads to a greater reliance on emotion than on reason in the lives of women. Freud also thought that much of women's behavior is driven by penis envy—the wish to have the male sex organ.

The unsuccessful resolution of the phallic stage can lead to a number of psychological problems in children. If children do not fully identify with their same-sex parent, they may not develop "appropriate" gender roles or a heterosexual orientation. They also may not develop a healthy superego and may become either too self-aggrandizing or too self-deprecating. If children's sexual attraction to their parents is not met with gentle but firm discouragement, they may become overly seductive or sexualized and have a number of problems in future romantic relationships.

After the turmoil of the phallic stage, children enter the latency stage, during which libidinal drives are quelled somewhat. Their attention turns to developing skills and interests and becoming fully socialized into the world in which they live. They play with friends of the same sex and avoid children of the opposite sex.

At about age 12, children's sexual desires emerge again as they enter puberty, and they enter the genital stage. If they have successfully resolved the phallic stage, their sexual interests turn to heterosexual relationships. They begin to pursue romantic alliances and learn to negotiate the world of dating and early sexual encounters with members of the opposite sex.

Later Psychodynamic Theories

Many of Freud's followers modified his original psychoanalytic theory, leading to a group of theories collectively referred to as *psychodynamic theories*. Anna Freud extended her work on defense mechanisms to develop the field of **ego psychology**, emphasizing the importance of the individual's ability to

regulate defenses in ways that allow healthy functioning within the realities of society.

Other theorists also focused on the role of the ego as an independent force striving for mastery and competence (e.g., Jacobson, 1964; Mahler, 1968). The **object relations** perspective integrated significant aspects of Sigmund Freud's drive theory with the role of early relationships in the development of self-concept and personality. According to proponents of this perspective—such as Melanie Klein, Margaret Mahler, and Otto Kernberg—our early relationships create images, or representations, of ourselves and others. We carry these images throughout adulthood, and they affect all our subsequent relationships. More contemporary types of psychoanalysis include **self psychology** and **relational psychoanalysis**, which emphasize the unconscious dimensions of our relationships with one another from pregnancy and infancy throughout all of life.

Carl Jung, who was a student of Freud, rejected many of Freud's ideas about the importance of sexuality in development. He argued that spiritual and religious drives were as important as sexual drives, and he suggested that the wisdom accumulated by a society over hundreds of years of human existence is stored in the memories of individuals. He referred to this wisdom as the **collective unconscious**.

Psychodynamic Therapies

Therapies based on Freud's classical psychoanalytic theory and on later psychodynamic theories focus on uncovering and resolving the unconscious processes that are thought to drive psychological symptoms. The goal of **psychodynamic therapies** is to help clients recognize their maladaptive coping strategies and the sources of their unconscious conflicts. The resulting insights are thought to free clients from the grip of the past and give them a sense of agency in making changes in the present (Vakoch & Strupp, 2000).

Freud and others developed the method of **free association**, in which a client is taught to talk about whatever comes to mind, trying not to censor any thoughts. The therapist notices what themes seem to recur in a client's free associations, exactly how one thought seems to lead to another, and the specific memories that a client recalls.

The material the client is reluctant to talk about during psychotherapy—that is, the client's **resistance** to certain material—is an important clue to the client's central unconscious conflicts, because the most threatening conflicts are those the ego tries hardest to repress (Vakoch & Strupp, 2000). The therapist eventually puts together these pieces of the puzzle to form

a suggestion or an interpretation of a conflict the client might be facing and then voices this interpretation to the client. Sometimes, the client accepts the interpretation as a revelation. Other times, the client is resistant to the interpretation. The therapist might interpret resistance as a good indication that the interpretation has identified an important issue in the client's unconscious.

The client's **transference** to the therapist is also a clue to unconscious conflicts and needs. Transference occurs when the client reacts to the therapist as if the therapist were an important person in the client's early development, such as his or her father or mother. For example, a client may find himself reacting with rage or extreme fear when a therapist is just a few minutes late for an appointment, a reaction that might stem from his feelings of having been emotionally abandoned by a parent during childhood. The therapist might point out the ways the client behaves that represent transference and might then help the client explore the roots of this behavior in the client's relationships with significant others.

By **working through**, or going over and over, painful memories and difficult issues, clients are able to understand them and weave them into their self-definition in acceptable ways. This allows them to move forward in their lives. Psychodynamic therapists believe that *catharsis*, or the expression of emotions connected to memories and conflicts, is also central to the healing processes in therapy. Catharsis unleashes the energy bound in unconscious memories and conflicts, allowing this material to be incorporated into a more adaptive self-view.

What is the difference between classical psychoanalysis and modern psychodynamic therapy? Psychoanalysis typically involves three or four sessions per week over a period of many years. The focus of psychoanalysis is primarily on the interpretation of transferences and resistances, as well as on experiences in the client's past (Luborsky & Barrett, 2006). Psychodynamic therapy also may go on for years, but it can be as short as 12 weeks (Crits-Christoph & Barber, 2000). Transferences, resistances, and the client's relationships with early caregivers are also the focus of psychodynamic therapy, but the psychodynamic therapist, compared with the psychoanalyst, may focus more on current situations in the client's life.

Interpersonal therapy, or **IPT**, emerged out of modern psychodynamic theories of psychopathology, which shifted the focus from the unconscious conflicts of the individual to the client's pattern of relationships with important people in his or her life (Klerman, Weissman, Rounsaville, & Chevron, 1984; Weissman & Markowitz, 2002). IPT differs

from psychodynamic therapies in that the therapist is much more structuring and directive in the therapy, offering interpretations much earlier and focusing on how to change current relationships. IPT is designed to be a short-term therapy, often lasting only about 12 weeks.

Assessing Psychodynamic Approaches

Psychodynamic theories are among the most comprehensive theories of human behavior established to date. For some people, they are also the most satisfying theories. They explain both normal and abnormal behavior with similar processes. Also, they have an “Aha!” quality about them that leads us to believe they offer important insights. Psychodynamic theories have played a major role in shaping psychology and psychiatry over the past century.

Psychodynamic theories also have many limitations and weaknesses. Chief among these is that it is difficult or impossible to test their fundamental assumptions scientifically (Erdelyi, 1992; but see Luborsky & Barrett, 2006; Westen, 1998). The processes described by these theories are abstract and difficult to measure. Because the key factors thought to be influencing behavior are unconscious and unobservable, it is easy to provide explanations for why a particular prediction might not be borne out in a particular circumstance.

As for psychodynamic therapy, its long-term, intensive nature makes it unaffordable for many people. In addition, people suffering from acute problems, such as severe depression or anxiety, often cannot tolerate the lack of structure in traditional psychodynamic therapy and need more immediate relief from their symptoms (Bachrach, Galatzer-Levy, Skolnikoff, & Waldron, 1991).

For these reasons, modern psychodynamic therapists have developed some shorter-term, more structured versions of psychodynamic therapy (Luborsky, 1984). Studies conducted on the effectiveness of these short-term therapies suggest that they can result in significant improvement in symptoms for people with psychological problems (Gibbons, Crits-Christoph, & Hearon, 2008).

This book focuses on those theories of specific disorders, and the therapies for these disorders, that have received substantial scientific support. Because psychodynamic theories and therapies have had much less empirical support than many newer psychological theories and therapies, we will not discuss them in detail in reviewing the research on most disorders.

Humanistic Approaches

Humanistic theories are based on the assumption that humans have an innate capacity for goodness and

for living a full life (Rogers, 1951). Pressure from society to conform to certain norms rather than to seek one's most-developed self interferes with the fulfillment of this capacity. The humanistic theorists recognized that we often are not aware of the forces shaping our behavior and that the environment can play a large role in our happiness or unhappiness. But they were optimistic that once people recognized these forces and became freer to direct their own lives, they would naturally make good choices and be happier.

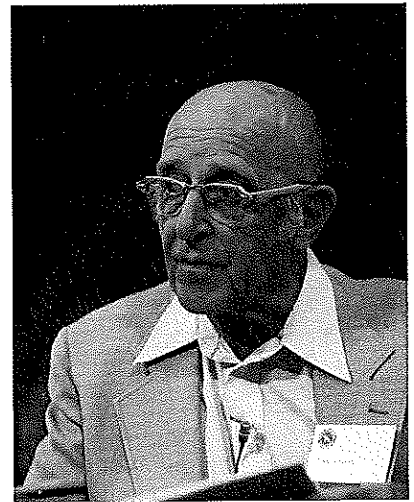
Carl Rogers (1951) developed the most widely known version of humanistic theory. Rogers believed that, without undue pressure from others, individuals naturally move toward personal growth, self-acceptance, and **self-actualization**—the fulfillment of their potential for love, creativity, and meaning. Under pressure from society and family, however, people can develop rigid and distorted perspectives of the self. People often experience conflict due to differences between their true self, the ideal self they wish to be, and the self they feel they ought to be to please others. This conflict can lead to emotional distress, unhealthy behaviors, and even the loss of touch with reality.

Humanistic Therapy

The stated goal of **humanistic therapy** is to help clients discover their greatest potential through self-exploration (Bohart, 1995). The job of the therapist in humanistic therapy is not to act as an authority who provides healing to the client but rather to provide the optimal conditions for the client to heal him- or herself. Humanistic therapists do not push clients to uncover repressed painful memories or unconscious conflicts. Instead, they believe that when clients are supported and empowered to grow, the clients eventually will face the past when doing so becomes necessary for their further development (Bohart, 1995).

The best known of these therapies is Carl Rogers's **client-centered therapy (CCT)** (Rogers, 1951). In CCT, the therapist communicates a genuineness in his or her role as helper to the client, acting as an authentic person rather than an authority figure. The therapist also shows unconditional positive regard for the client and communicates an empathic understanding of the client's underlying feelings and search for self.

The main strategy for accomplishing these goals is the use of reflection. **Reflection** is a method



Carl Rogers (January 8, 1902–February 4, 1987) was among the founders of the humanistic approach (or client-centered approach) to psychology. © Roger Ressmeyer/Corbis

SHADES OF GRAY

A student comes into a therapist's office to discuss her feelings about her schoolwork and career. She says "I'm feeling so lost in my career. Every time I seem to be getting close to doing something really good, like acing a class, I somehow manage to screw it up. I never feel like I am really using my potential. There is a block there." (Bohart, 1995, p. 101).

How might a humanistic therapist versus a psychodynamic therapist respond to this student's concerns? (Discussion appears at the end of this chapter.)

of response in which the therapist expresses an attempt to understand what the client is experiencing and trying to communicate (Bohart, 1995). The therapist does not attempt to interpret the unconscious aspects of the client's experience but rather tries to communicate an understanding of the client and explicitly asks for feedback from the client about this understanding.

Assessing Humanistic Approaches

The humanistic theories struck a positive chord in the 1960s and still have many proponents, especially among self-help groups and peer-counseling programs. The optimism and attribution of free will of these theories are a refreshing change from the emphasis on pathology and external forces of other theories. Humanistic theories shift the focus from what is wrong with people to questions about how people can be helped to achieve their greatest potential. These theories have been criticized, however, for being vague and not subject to scientific testing (Bohart, 1990).

Client-centered therapy has been used to treat people with a wide range of problems, including depression, alcoholism, schizophrenia, anxiety disorders, and personality disorders (Bohart, 1990). Although some studies have shown that CCT results in better outcomes than comparison therapies, other studies have not (Greenberg, Elliot, & Lietaer, 1994). Some therapists believe that CCT may be appropriate for people who are moderately distressed but insufficient for people who are seriously distressed (Bohart, 1995).

Family Systems Approaches

Family systems theories see the family as a complex interpersonal system, with its own hierarchy and rules that govern family members' behavior. The family system can function well and promote the well-being of its members, supporting their growth and accepting their change. Or the family system can

be dysfunctional, creating and maintaining psychopathology in one or more members (Mirsalimi, Perleberg, Stovall, & Kaslow, 2003).

When a member of the family has a psychological disorder, family systems theorists see it not as a problem within the individual but as an indication of a dysfunctional family system. The particular form that any individual's psychopathology takes depends on the complex interactions among the family's cohesiveness, adaptability to change, and communication style (Mirsalimi et al., 2003).

For example, an inflexible family is resistant to and isolated from all forces outside the family and does not adapt well to changes within the family, such as a child moving into adolescence. In an enmeshed family, each member is overly involved in the lives of the others, to the point that individuals do not have personal autonomy and can feel controlled. A disengaged family, in contrast, is one in which the members pay no attention to each other and operate as independent units isolated from other family members. And in pathological triangular relationships, parents avoid dealing with conflicts with each other by always keeping their children involved in their conversations and activities (Mirsalimi et al., 2003). So a family theorist trying to understand Steven Hayes's anxiety would examine how his family functioned as he was growing up and how that continues to influence him as an adult.

Some of the research on family systems theories of psychopathology has focused on disorders presented by the children in the family, particularly eating disorders (e.g., Minuchin, Rosman, & Baker, 1978; Robin, 2003). This research suggests that many young girls who develop eating disorders are members of enmeshed families. The parents of these girls are overcontrolling and overinvested in their children's success, and in turn the children feel smothered and dependent on their parents. Anorexia nervosa, a disorder in which an individual refuses to eat and becomes emaciated, may be a girl's way of claiming some control over her life. The family system of these girls supports the

anorexia rather than helping them overcome it. The anorexia becomes a focal point and excuse for the family's enmeshment. (See also the chapter, "Eating Disorders.")

Family systems therapy is based on the belief that an individual's problems are always rooted in interpersonal systems, particularly family systems. According to this viewpoint, you cannot help an individual without treating the entire family system that created and is maintaining the individual's problems. In fact, these theorists argue that the individual may not even have a problem but rather has become the "identified patient" in the family, carrying the responsibility or blame for the dysfunction of the family system (Minuchin, 1981; Satir, 1967).

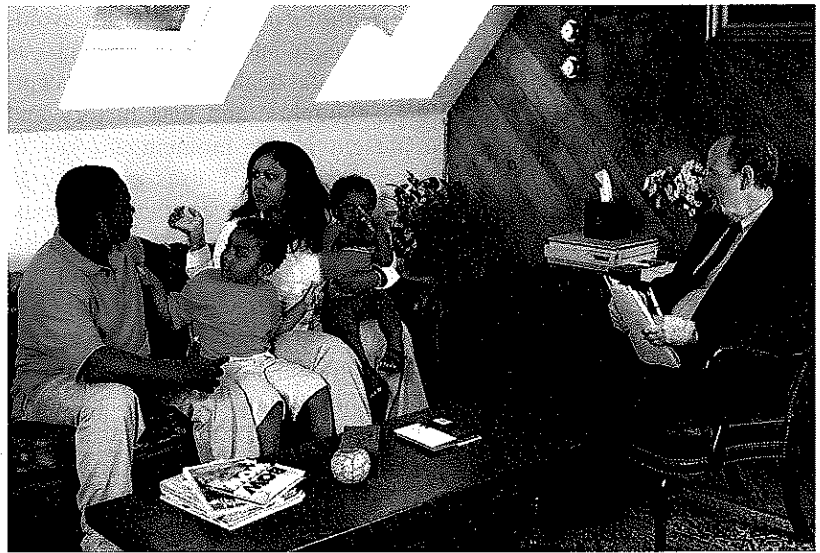
Behavioral family systems therapy (BFST) targets family communication and problem solving, those beliefs of parents and adolescents that impede communication, and systemic barriers to problem solving (Robin, 2003). Behavioral and cognitive methods are used to teach problem-solving and communication skills and to challenge the unhelpful beliefs of parents and teens. Therapists also address dysfunctional family system characteristics, such as weak coalitions between parents. Therapists actively provide instructions, feedback, and opportunities for the rehearsal of skills and role playing.

Assessing Family Systems Approaches

Family systems theories have led to therapeutic approaches that have proven useful for treating some types of disorders (Mirsalimi et al., 2003). Family systems therapies may be particularly appropriate in the treatment of children, because children are so much more entwined in their families than are adults. Although the details of many family systems theories have not been thoroughly tested in research, it is clear that families can contribute to or help diminish the psychological symptoms of their members (e.g., Mirsalimi et al., 2003). However, much more research on family systems theories and therapies is needed. Such research is difficult to carry out, because it usually involves observing people in the context of their relationships, which are difficult to capture in a laboratory setting.

Third-Wave Approaches

In recent years, a group of psychotherapeutic approaches known as **third-wave approaches** (the first wave was behavioral approaches, and the second wave was cognitive approaches) has become prominent in the theory and treatment of psychological disorders. Several of these approaches view poor regulation of



Family therapists work with the entire family rather than with only the "identified patient." © Nancy Sheehan/PhotoEdit

emotions as a transdiagnostic risk factor at the core of many forms of psychopathology, including depression, anxiety, substance abuse, and most personality disorders (Campbell-Sills & Barlow, 2007; Kring & Sloan, 2009). They combine techniques from behavioral and cognitive therapy with mindfulness meditation practices derived from Zen Buddhism to help individuals accept, understand, and better regulate their emotions.

The most-established third-wave approach is *dialectical behavior therapy* (DBT; Linehan, 1999). The term *dialectical* in dialectical behavior therapy refers to the constant tension between conflicting images or emotions in people prone to certain forms of psychopathology. Dialectical behavior therapy focuses on difficulties in managing negative emotions and in controlling impulsive behaviors. The therapy involves a number of behavioral and cognitive techniques and mindfulness exercises aimed at increasing problem-solving skills, interpersonal skills, and skill at managing negative emotions. DBT originally was developed to treat people with borderline personality disorder who were suicidal, and studies comparing this therapy to control conditions suggest that it can reduce suicidal thoughts and behaviors as well as improve interpersonal skills (Lynch, Trost, Salsman, & Linehan, 2007). Most recently, DBT has been adapted for the treatment of eating disorders (Safer, Telch, & Chen, 2009) and is being used to treat other individuals with difficulties in emotional regulation and impulse control (Lynch et al., 2007).

Steven Hayes (Hayes et al., 2006), whom we met in the Extraordinary People feature at the beginning of this chapter, is the founder of *acceptance and commitment therapy* (ACT), which

assumes that *experiential avoidance*—that is, avoidance of painful thoughts, memories, and feelings—is at the heart of many mental health problems. Accepting one's feelings, thoughts, and past history and learning to be present in the moment are key to achieving positive change. ACT uses a variety of techniques to help individuals accept their emotions, be present in the moment, relate to their thoughts differently (e.g., watching them as external objects), and commit to changing their behaviors in accord with their goals and values. ACT has been used in preliminary trials in the treatment of a wide variety of problems, especially in the area of substance abuse and dependence (Hayes et al., 2006).

Assessing Third-Wave Approaches

The third-wave approaches have their roots in well-established behavioral and cognitive theories and techniques, but they draw innovative ideas and techniques from spiritual and philosophical traditions, such as Buddhism, and theories of adaptive emotion-regulation. Existing studies of the effectiveness of therapies based on emotion-focused approaches suggest that these therapies may be helpful in the treatment of a wide range of mental health problems (Hayes et al., 2006; Holzel et al., 2011; Lynch et al., 2007). Much more research is needed, however, particularly into claims of how and why these therapies may help individuals change their behaviors and emotional reactions.

Using New Technology to Deliver Treatment

The burden of mental health problems in the world is much greater than the availability of mental health professionals trained to deliver the interventions described (Kazdin & Blasé, 2011). For example, recent estimates by the World Health Organization derived from studies done in 17 nations suggest that between 12 and 47 percent of individuals will have symptoms that meet the criteria for diagnosis of a mental disorder in their lifetime (Kessler et al., 2009). In the United States, lifetime rates of mental disorders are estimated at 50 percent, with 25 percent of the population meeting the criteria for a diagnosis in any given year (Kessler & Wang, 2008). That amounts to about 75 million people—when there are only about 700,000 mental health professionals in the United States (Kazdin & Blasé, 2011). The rate of mental health problems is especially high within disadvantaged ethnic minority groups (Alegría et al., 2008), but individuals in these groups tend to have less access to mental health services than individuals in majority groups.

For example, it is estimated that only 12.5 percent of African Americans and 10.7 percent of Hispanic Americans needing mental health care have access to appropriate care, compared to over 22 percent of European Americans (Wells, Klap, Koike, & Sherbourne, 2001). In addition, because mental health care providers tend to be concentrated in urban areas of developed countries, people living in rural areas of the United States and in developing areas of the world often have very little access to mental health care.

Increasingly, new technology, including the Internet and smart phone applications, is being used to deliver mental health care, with promising effectiveness (Kazdin & Blasé, 2011). For example, a smart phone application known as Mobile Therapy prompts users to report their levels of happiness, sadness, anxiety, and anger on a touchscreen “mood map.” Based on users’ reports, exercises based on cognitive-behavioral therapy techniques—such as exercises to challenge negative thoughts—are provided to help individuals repair their mood. A 1-month study of the application showed that users became more self-aware of their moods and of the triggers of negativity and that their skill in coping with their negative moods increased (Morris et al., 2010).

Although the delivery of interventions through new technologies is only beginning in the mental health field, it has been thriving in the field of health psychology, as we discuss in the chapter, “Health Psychology.” Several studies have shown that interventions delivered through the Internet, smart phones, regular phones, and even fictional television and radio shows have improved people’s diets, leading to lower levels of obesity and diabetes; decreased levels of smoking; and increased the use of condoms to prevent sexually transmitted diseases (see the chapter, “Health Psychology,” Kazdin & Blasé, 2011). These interventions can be made available to people living in rural areas and developing countries and to people with modest incomes, and they have been shown to be effective in these populations (e.g., Muñoz et al., 2006).

SOCIOCULTURAL APPROACHES

Sociocultural approaches suggest that we need to look beyond the individual or even the family to the larger society in order to understand people’s problems. First, socioeconomic disadvantage is a transdiagnostic risk factor for a wide range of mental health problems (Gustafsson, Larsson, Nelson, & Gustafsson, 2009). Individuals who are poor tend

to live in neighborhoods in which they are exposed to violence and inadequate schools and where there are few resources for everyday living (such as grocery stores) and little cohesion among neighbors (Gustafsson et al., 2009). In turn, people living in poverty-stricken urban neighborhoods experience more substance abuse, juvenile delinquency, depression, and anxiety (Belle & Doucet, 2003).

Second, the upheaval and disintegration of societies due to war, famine, and natural disaster are potent transdiagnostic risk factors for mental health problems. As we discuss in the chapter, “Trauma, Anxiety, Obsessive-Compulsive, and Related Disorders,” individuals who live in countries ravaged by war or who must flee their homelands and live as refugees show high rates of posttraumatic stress disorder and other mental health problems. For example, a study of citizens of Afghanistan found that 42 percent could be diagnosed with posttraumatic stress disorder and 72 percent had some sort of anxiety symptoms (Cardozo et al., 2004).

Third, social norms and policies that stigmatize and marginalize certain groups put individuals in these groups at increased risk for mental health problems even if they do not suffer socioeconomic stress. For example, gay, lesbian, bisexual, and transgender individuals suffer higher rates of depression, anxiety, and substance use compared to heterosexuals (Hatzenbuehler, 2009; Meyer, 2003). These higher rates have been linked to the experience of discrimination based on sexual orientation and to social policies that disadvantage sexual minorities (Hatzenbuehler, Nolen-Hoeksema, & Erickson, 2008; Meyer, 2003). For example, data from a nationally representative study of over 34,000 participants found higher rates of mental health problems among lesbian, gay, and bisexual (LGB) respondents living in states with social policies that do not confer protection for LGB individuals (e.g., states that do not treat anti-LGB violence as a hate crime) compared to LGB respondents who reside in states with protective policies (Hatzenbuehler, Keyes, & Hasin, 2009). Another long-term study found increases in mental health problems among LGB individuals living in states that instituted bans on gay marriage in the 2004–2005 elections (Hatzenbuehler, McLaughlin, Keyes, & Hasin, 2010). Thus, sociocultural discrimination at the level of state policies can affect citizens’ mental health.

Fourth, societies may influence the types of psychopathology their members show by having implicit or explicit rules about what types of abnormal behavior are acceptable (Castro et al., 2010). Throughout this book, we will see that the rates of disorders vary from one culture or ethnic group to

another and between males and females. For example, people from “traditional” cultures, such as the Old Order Amish in the United States, appear to suffer less depression than people in modern cultures (Egeland & Hostetter, 1983). In addition, the particular manifestations of disorders seem to vary from one culture to another. For example, the symptoms of anorexia nervosa, the disorder in which people refuse to eat, appear to be different in Asian cultures than in American culture.

Indeed, some disorders appear to be specific to certain cultures (Alarcón et al., 2009). In Japan, there is a disorder called *taijinkyofusho*, in which individuals have intense fears that their body displeases, embarrasses, or is offensive to other people. Throughout Latin American and Mediterranean cultures, *ataque de nervios* is a common reaction to stress. People may feel out of control, displaying uncontrollable shouting, crying, and trembling and verbal or physical aggression. We will discuss the influence of culture on the manifestation of distress further in the chapter, “Assessing and Diagnosing Abnormality.”

Cross-Cultural Issues in Treatment

For the most part, people from diverse cultures who seek psychotherapy are treated with the types of psychotherapy described in this chapter, with little adaptation of these approaches to specific cultures (Castro et al., 2010). A number of the assumptions inherent in mainstream psychological therapies, however, can clash with the values and norms of people in certain cultures. Therefore, therapists must take a culturally sensitive approach to their clients (Snowden & Yamada, 2005; Sue & Lam, 2002). First, most psychotherapies are focused on the individual—the individual’s unconscious conflicts, dysfunctional ways of thinking, maladaptive behavior patterns, and so on. In contrast, many cultures focus on the group, or collective, rather than on the individual (Sue & Sue, 2003). In these cultures, the identity of the individual is not seen apart from the groups to which that individual belongs—his or her family, community, ethnic group, and religion. If therapists fail to recognize this when working with clients from collectivist cultures, they may make useless or perhaps even harmful recommendations, leading to conflicts between their clients and important groups in the clients’ lives that the clients cannot handle.

Second, most psychotherapies value the expression of emotions and the disclosure of personal concerns, whereas many cultures, for example, Japanese culture, value restraint with regard to emotions and personal concerns (Sue & Sue, 2003). Some counselors

may view this restraint as a problem and try to encourage their clients to become more expressive. Again, this effort can clash with the self-concepts of clients and with the norms of their culture.

Third, in many psychotherapies, clients are expected to take the initiative in communicating their concerns and desires to the therapist and in generating ideas about what is causing their symptoms and what changes they might want to make. These expectations can clash with cultural norms that require deference to people in authority (Sue & Sue, 2003). A client from a culture in which one speaks only when spoken to and never challenges an elder or an authority figure may be extremely uncomfortable with a therapist who does not directly tell the client what is wrong and how to fix it.

Fourth, many clients who are in ethnic minority groups may also be in lower socioeconomic groups, while their therapists are likely to be in middle- or upper-class socioeconomic groups. This situation can create tensions due to class differences as well as cultural differences (Miranda et al., 2005).

Some studies suggest that people from Latino, Asian, and Native American cultures are more comfortable with structured and action-oriented therapies, such as behavioral and cognitive-behavioral therapies, than with the less structured therapies (Miranda et al., 2005). The specific form of therapy may not matter as much as the cultural sensitivity the therapist shows toward the client, whatever therapy is being used. Stanley Sue and Nolan Zane (1987, pp. 42–43) give the following example of the importance of cultural sensitivity in the interaction between client and therapist. First, they describe the problems the client faced; then they describe how the therapist (one of the authors of the study) responded to these problems.

CASE STUDY

Mae C. decided to seek services at a mental health center. . . . An immigrant from Hong Kong several years ago, Mae met and married her husband (also a recent immigrant from Hong Kong). Their marriage was apparently going fairly well until six months ago when her husband succeeded in bringing over his parents from Hong Kong. . . .

After the parents arrived, Mae found that she was expected to serve them. For example, the mother-in-law would expect Mae to cook and serve dinner, to wash all the clothes, and to do other chores. . . . The parents-in-law also displaced Mae and her husband from the master bedroom. The

guest room was located in the basement, and the parents refused to sleep in the basement because it reminded them of a tomb.

Mae would occasionally complain to her husband about his parents. The husband would excuse his parents' demands by indicating "They are my parents and they're getting old." In general, he avoided any potential conflict; if he took sides, he supported his parents. Although Mae realized that she had an obligation to his parents, the situation was becoming intolerable to her.

I (the therapist) indicated (to Mae) that conflicts with in-laws were very common, especially for Chinese, who are obligated to take care of their parents. I attempted to normalize the problems because she was suffering from a great deal of guilt over her perceived failure to be the perfect daughter-in-law. . . .

I discussed Mae during a case conference with other mental health personnel. . . . The staff agreed that working solely with Mae would not change the situation. . . . Confronting her in-laws was discrepant with her role of daughter-in-law, and she felt very uncomfortable in asserting herself in the situation. Trying to involve her husband or in-laws in treatment was ill advised. Her husband did not want to confront his parents. . . . Mae was extremely fearful that her family might find out that she had sought psychotherapy. Her husband as well as her in-laws would be appalled at her disclosure of family problems to a therapist who was an outsider. . . . During the case conference, we discussed the ways that Chinese handle interpersonal family conflicts which are not unusual to see. Chinese often use third-party intermediaries to resolve conflicts. . . . At the next session with Mae, I asked her to list the persons who might act as intermediaries, so that we could discuss the suitability of having someone else intervene. Almost immediately, Mae mentioned her uncle . . . whom she described as being quite understanding and sensitive. . . . After calling her uncle . . . she reported that he wanted to visit them. . . . He came for dinner, and Mae told me that she overheard a discussion between the uncle and Mae's mother-in-law. Essentially, he told her that Mae looked unhappy, that possibly she was working too hard, and that she needed a little more praise for the work that she was doing in taking care of everyone. The mother-in-law expressed surprise over Mae's unhappiness and agreed that Mae was doing a fine job. Without directly confronting each other, the uncle and his younger sister understood the subtle messages each conveyed. After this interaction, Mae reported that her mother-in-law's criticisms did noticeably diminish and that she had even begun to help Mae with the chores.

Source: Sue & Zane, 1987, pp. 42–43.

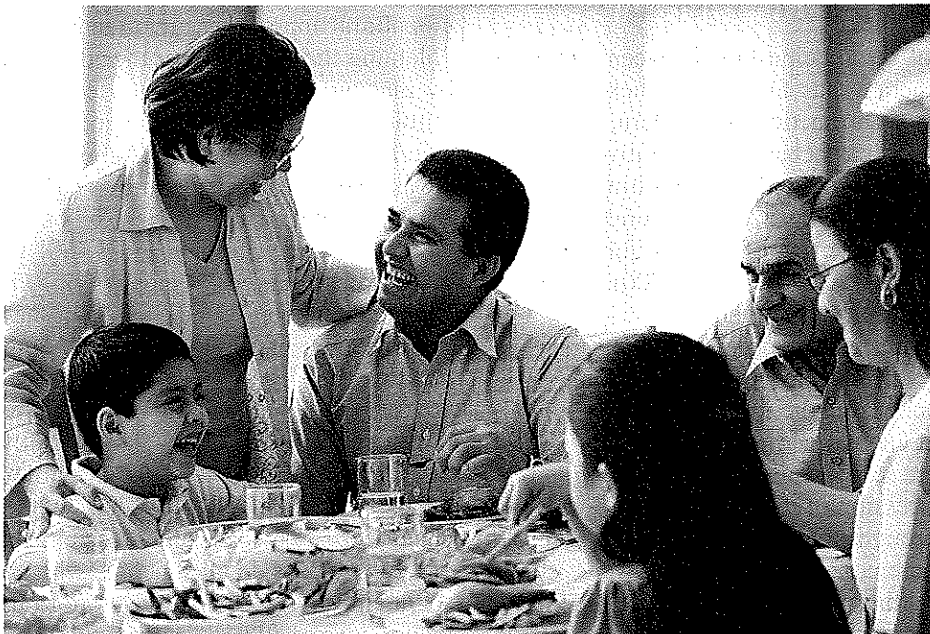
If Mae's therapist had not been sensitive to Mae's cultural beliefs about her role as a daughter-in-law and had suggested some of the solutions put forward by his colleagues in the case conference, Mae might even have dropped out of therapy. People from ethnic minority groups in the United States are much more likely than European Americans to drop out of psychosocial therapy (Snowden & Yamada, 2005). Because Mae's therapist was willing to work within the constraints of her cultural beliefs, he and Mae found a solution to her situation that was acceptable to her.

In treating children, cultural norms about child-rearing practices and the proper role of doctors can make it difficult to include the family in a child's treatment. For example, in a study of behavior therapy for children, Hong Kong Chinese parents were very reluctant to be trained to engage in behavioral techniques, such as responding with praise or ignoring certain behaviors. Such techniques violated the parents' views of appropriate childrearing practices and their expectations that the therapist should be the person "curing" the child. However, several clinicians argue that family-based therapies are more appropriate than individual therapy in cultures that are highly family-oriented, including Native American, Hispanic, African American, and Asian American cultures (Miranda et al., 2005).

Jeannette Rosselló and Guillermo Bernal (2005) adapted both cognitive-behavioral therapy and interpersonal therapy to be more culturally sensitive in the

treatment of depressed Puerto Rican adolescents. The Puerto Rican value of *familism*, a strong attachment to family, was incorporated into the therapy. Issues of the balance between dependence and independence were explicitly discussed in family groups. The adapted therapies proved effective in treating the adolescents' depression.

Must a therapist come from the same culture as the client to fully understand the client? A review of several studies suggests that ethnic matching is not an important predictor of how long clients remain in therapy or of the outcomes of therapy (Maramba & Nagayama Hall, 2002). Cultural sensitivity probably can be acquired through training and experience (Castro et al., 2010). In fact, a therapist's being from the same ethnic or racial group as the client does not mean that therapist and client share the same value system (Teyber & McClure, 2000). For example, a fourth-generation Japanese American who has fully adopted the competitive and individualistic values of Americans may clash with a recent immigrant from Japan who subscribes to the self-sacrificing, community-oriented values of Japanese culture. Value differences among people of the same ethnic/racial group may explain why studies show that matching the ethnicity, race, or gender of the therapist and the client does not necessarily lead to a better outcome for the client (Maramba & Nagayama Hall, 2002). On the other hand, the relationship between client and therapist and a client's beliefs about the likely effectiveness of a therapy contribute



Therapy adapted for Puerto Rican families incorporated the values of familism.

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strongly to the client's full engagement in the therapy and its effectiveness.

However, studies testing treatments essentially have ignored the question of whether the effectiveness of treatments varies by cultural group or ethnicity (Miranda et al., 2005). An analysis conducted for the report of the Surgeon General (U.S. Department of Health and Human Services, 2001) found that of 9,266 participants involved in the efficacy studies forming the major treatment guidelines for bipolar disorder, schizophrenia, depression, and attention-deficit/hyperactivity disorder, only 561 African Americans, 99 Americans of Latin descent, 11 Asian Americans/Pacific Islanders, and no Native Americans were included. Few of these studies could examine the impact of treatment on specific minorities. There is obvious need for more studies that specifically examine cultural variation in the efficacy of psychotherapy.

As for gender, there is little evidence that women or men do better in therapy with a therapist of the same gender (Cottone, Drucker, & Javier, 2002; Huppert et al., 2001; Teyber & McClure, 2000). Women and men do tend to report that they prefer a therapist of the same gender, however (Garfield, 1994; Wintersteen, Mensinger, & Diamond, 2005). Because the client's comfort with a therapist is an important contributor to a client's seeking therapy and continuing it for an entire course, gender matching may be important in therapy (Winterstein et al., 2005).

Culturally Specific Therapies

Our review of the relationships between culture or gender and therapy has focused on those forms of therapy most often practiced in modern, industrialized cultures, such as behavioral, cognitive, and psychodynamic therapies. Even within modern, industrialized countries, however, cultural groups often have their own forms of therapy for distressed people (Hall, 2001; Koss-Chiokino, 2000). Let us examine two of these cultural therapies.

Native American healing processes focus simultaneously on the physiology, psychology, and religious practices of the individual (Gone, 2010). "Clients" are encouraged to transcend the self, to experience the self as embedded in the community and as an expression of the community. Family and friends are brought together with the individual in traditional ceremonies involving prayers, songs, and dances that emphasize Native American cultural heritage and the reintegration of the

individual into the cultural network. These ceremonies may be supplemented by a variety of herbal medicines that have been used for hundreds of years to treat people exhibiting physical and psychological symptoms.

Hispanics in the southwestern United States and Mexico suffering from psychological problems may consult folk healers, known as *curanderos* or *curanderas* (Chevez, 2005; Koss-Chiokino, 2000). Curanderos use religion-based rituals, including prayers and incantations, to overcome the folk illnesses believed to cause psychological and physical problems. Curanderos also may apply healing ointments or oils and prescribe herbal medicines (Chevez, 2005; Koss-Chiokino, 2000).

Native Americans and Hispanics often seek help from both folk healers and mental health professionals who practice the therapies described in this chapter. Mental health professionals need to be aware of the practices and beliefs of folk healing when they treat clients from these cultural groups, keeping in mind the possibility that clients will combine the different forms of therapy and follow some recommendations of both types of healers.

Assessing Sociocultural Approaches

The sociocultural approaches to abnormality argue that we should analyze the larger social and cultural forces that may influence people's behavior. It is not enough to look only at what is going on within individuals or their immediate surroundings. Sociocultural approaches are often given credit for not "blaming the victim," as other theories seem to do by placing the responsibility for psychopathology within the individual. The sociocultural approaches also raise our consciousness about our responsibility as a society to change the social conditions that put some individuals at risk for psychopathology. Community psychology and social work are two professions focused on empowering individuals to change their social conditions in order to help them improve their psychological well-being and quality of life.

The sociocultural theories can be criticized, however, for being vague about exactly how social and cultural forces lead to psychological disturbance in individuals. In what ways does social change or stress lead to depression, schizophrenia, and so on? Why do most people who are exposed to social stress and change develop no psychological disturbance at all?

PREVENTION PROGRAMS

Preventing people from developing psychopathology in the first place is better than waiting to treat it once it develops. Stopping the development of disorders before they start is called **primary prevention** (Muñoz et al., 2010). Some primary prevention strategies for reducing drug abuse and delinquency might include changing neighborhood characteristics that seem to contribute to drug use or delinquency.

Secondary prevention is focused on detecting a disorder at its earliest stages and thereby preventing the development of the full-blown disorder (Muñoz et al., 2010). Secondary prevention often involves screening for early signs of a disorder, for example, administering a questionnaire to detect mild symptoms of depression. An intervention might be administered to individuals with mild symptoms to prevent them from developing depressive disorders. Several studies have shown that administering a cognitive-behavioral intervention to an individual with mild depressive symptoms can significantly reduce the individual's chances of developing a depressive disorder (Cuijpers, van Straten, van Oppen, & Andersson, 2008).

Tertiary prevention focuses on people who already have a disorder. It seeks to prevent relapse and reduce the impact of the disorder on the

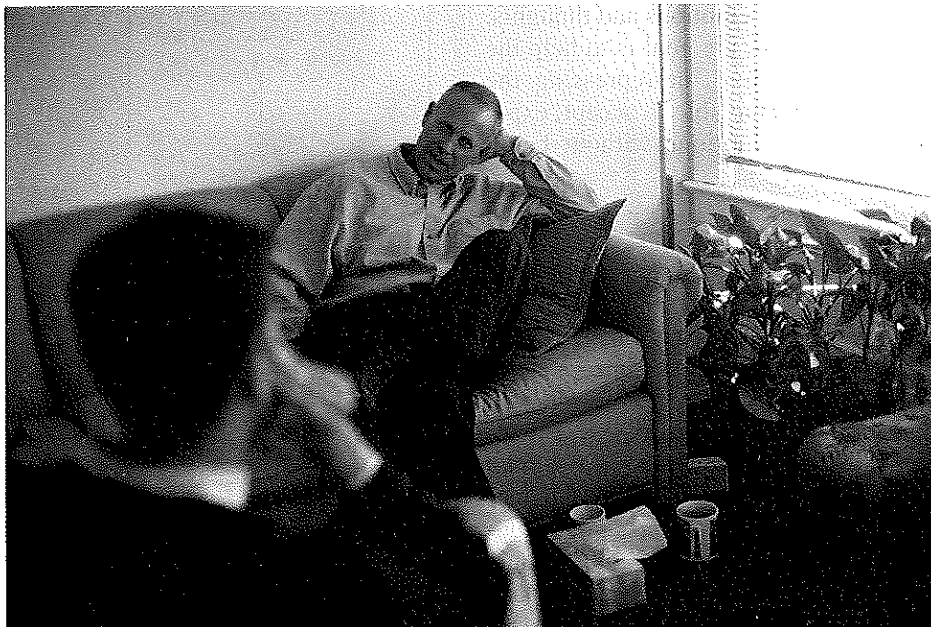
person's quality of life. As we discuss in the chapter, "Schizophrenia Spectrum and Other Psychotic Disorders," programs that provide job-skills training and social support to people with schizophrenia can help prevent the recurrence of psychotic episodes (Lieberman et al., 2002).

COMMON ELEMENTS IN EFFECTIVE TREATMENTS

On the surface, the different types of therapy described in this chapter may seem radically different. There is evidence, however, that successful therapies share some common components, even when the specific techniques of the therapies differ greatly.

The first common component is a *positive relationship* with the therapist (Norcross, 2002). Clients who trust their therapist and believe that the therapist understands them are more willing to reveal important information, engage in homework assignments, and try new skills or coping techniques suggested by the therapist. In addition, simply having a positive relationship with a caring and understanding human being helps people overcome distress and change their behaviors (Teyber & McClure, 2000).

Second, all therapies provide clients with an *explanation or interpretation* of why they are suffering (Ingram, Hayes, & Scott, 2000). Simply having a label



A positive relationship between client and therapist is important to successful treatment.

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for painful symptoms and an explanation for those symptoms seems to help many people feel better. In addition, the explanations that therapies provide for symptoms usually are accompanied by a set of recommendations for how to overcome those symptoms, and following the recommendations may provide the main relief from the symptoms.

In any case, it seems clear that a client must believe the explanation given for the symptoms for the therapy to help (Frank, 1978). For example, studies of cognitive-behavioral therapy for depression have found that the extent to which clients believe and accept the rationale behind this therapy is a significant predictor of the effectiveness of the therapy (Fennell & Teasdale, 1987). Clients to whom the rationale behind cognitive therapy makes sense engage more actively in therapy and are less depressed after a course of therapy than clients who don't accept the rationale for the therapy from the outset. A major problem in drug therapies is the high dropout rate. Often, people drop out either because they do not experience quick enough relief from the drugs and therefore believe the drugs will not work or because they feel they need to talk about their problems in order to overcome them.

Third, most therapies encourage clients to *confront painful emotions* and use techniques designed to help them become less sensitive to these emotions (Frank, 1978; Prochaska, 1995; Snyder, Ilardi, Michael, & Cheavens, 2000). In behavior therapy, systematic desensitization or flooding might be used. In psychodynamic therapy, clients are encouraged to express painful emotions and thoughts. Whatever technique is used, the goal is to help the client stop denying, avoiding, or repressing the painful emotions and become able to accept, experience, and express the emotions without being debilitated by them.

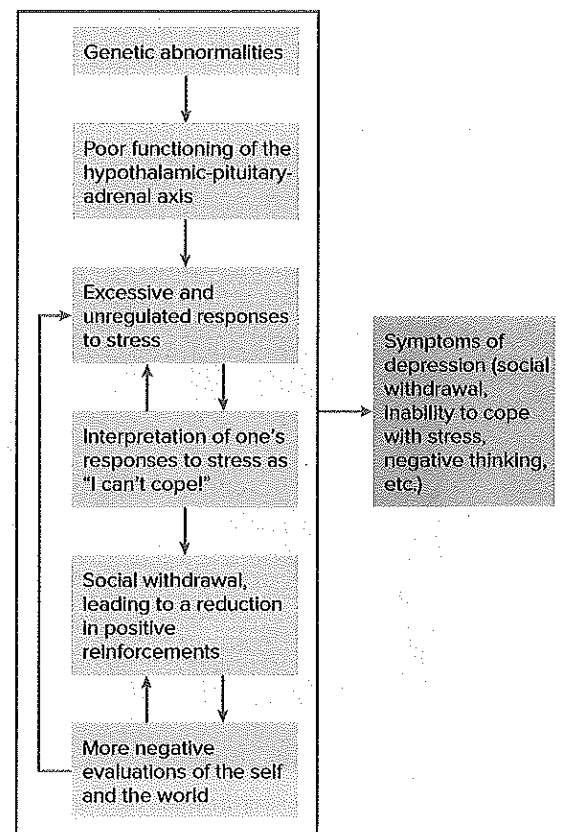
CHAPTER INTEGRATION

As we noted at the beginning of this chapter, many scientists believe that only models that integrate biological, psychological, and social risk factors can provide comprehensive explanations of psychological disorders. Only integrated models can explain why many people with disordered genes or deficiencies in neurotransmitters do not develop painful emotional symptoms or bizarre thoughts. Similarly, only integrated models can suggest how traumatic experiences and toxic interpersonal relationships can cause changes in the basic biochemistry of the brain, which then cause changes in a person's emotions, thoughts, and behaviors.

Figure 12 illustrates how some of the biological, psychological, and social risk factors discussed in this chapter might combine to contribute to symptoms of depression, for example. Initially, some people's genetic characteristics lead to poor functioning of the hypothalamic-pituitary-adrenal axis. Chronic arousal of this axis may lead individuals to be overly responsive to stress. If they tend to interpret their reactions to stress in terms of "I can't cope!" they may develop a negative thinking style. This negative thinking style can then cause them to withdraw socially, leading to fewer positive reinforcements. This in turn could feed negative evaluations of themselves and of the world, further contributing to depression. Then, when they are confronted with new stressors, they might not have good strategies for coping with them and might overreact psychologically as well as physiologically. All these processes come together to produce the key symptoms of depression—social withdrawal, an inability to cope with stress, negative thinking, and so on.

FIGURE 12

How Some Biological, Psychological, and Social Factors Might Interact to Cause Depression.



SHADES OF GRAY DISCUSSION

A humanistic therapist would provide a reflection that attempts to accurately restate what the student said and the emotions she expressed, without suggesting any interpretation of her feelings:

Reflection: "It's really frustrating to screw up and kill your chances; and it feels like it's something in you that's making that happen again and again."

A psychodynamic therapist might infer that the student's expressed concerns reflect unconscious conflicts about success. When he or she feels there is enough evidence, an interpretation such as the following might be offered:

A psychodynamic interpretation: "It sounds like every time you get close to success you unconsciously sabotage yourself. Perhaps success means something to you that is troubling or uncomfortable, and you are not aware of what that is."

The psychodynamic interpretation may be true, but the client-centered therapist would view it as inappropriate because it brings to the client's attention something not currently in the client's awareness (adapted from Bohart, 1995, p. 101).

CHAPTER SUMMARY

- Biological theories of psychopathology typically attribute symptoms to structural abnormalities in the brain, disordered biochemistry, or faulty genes.
- Structural abnormalities in the brain can be caused by faulty genes, by disease, or by injury. Which particular area of the brain is damaged influences the symptoms individuals show.
- Many biological theories attribute psychopathology to imbalances in neurotransmitters or to the functioning of receptors for neurotransmitters.
- Genetic theories of abnormality usually suggest that it takes an accumulation of faulty genes to cause a psychopathology.
- Genes can influence the environments people choose, which then influence the expression of genetic tendencies. Epigenetics is the study of how environmental conditions can influence the expression of genes.
- Biological therapies most often involve the use of drugs intended to regulate the functioning of the brain neurotransmitters associated with a psychological disorder or to compensate for structural brain abnormalities or the effects of genetics.
- Antipsychotic medications help reduce unreal perceptual experiences, unreal beliefs, and other symptoms of psychosis. Antidepressant drugs help reduce symptoms of depression. Lithium and anticonvulsants help reduce mania. Barbiturates and benzodiazepines help reduce anxiety.
- Electroconvulsive therapy is used to treat severe depression. Various new methods are being developed to stimulate the brain without using electricity. Psychosurgery is used in rare circumstances.
- The behavioral theories of abnormality reject notions of unconscious conflicts and focus only on the rewards and punishments in the environment that shape and maintain behavior.
- Classical conditioning takes place when a previously neutral stimulus is paired with a stimulus that naturally creates a certain response; eventually, the neutral stimulus also elicits the response.
- Operant conditioning involves rewarding desired behaviors and punishing undesired behaviors.
- People also learn by imitating the behaviors modeled by others and by observing the rewards and punishments others receive for their behaviors.
- Behavior therapies focus on changing specific maladaptive behaviors and emotions by changing the reinforcements for them.
- Cognitive theories suggest that people's cognitions (e.g., attributions for events, global assumptions) influence the behaviors and emotions with which they react to situations.
- Cognitive therapies focus on changing the way a client thinks about important situations.
- Psychodynamic theories of psychopathology focus on unconscious conflicts that cause anxiety in the individual and result in maladaptive behavior. Freud argued that these conflicts arise when the impulses of the id clash with the constraints on behavior imposed by the ego and superego.
- People use various types of defense mechanisms to handle their internal conflicts. How caregivers handle a child's transitions through the psychosexual stages

determines the concerns or issues the child may become fixated on.

- More recent psychodynamic theorists focus less on the role of unconscious impulses and more on the development of the individual's self-concept in the context of interpersonal relationships. They see a greater role for the environment in shaping personality and have more hope for change during adulthood than Freud had.
- Psychodynamic therapy focuses on unconscious conflicts that lead to maladaptive behaviors and emotions. Interpersonal therapies are based on psychodynamic theories but focus more on current relationships and concerns.
- Humanistic theories suggest that all humans strive to fulfill their potential for good and to self-actualize. The inability to fulfill one's potential arises from the pressures of society to conform to others' expectations and values.
- Humanistic therapies seek to help a client realize his or her potential for self-actualization.
- Family systems theories and therapies see the family as a complex interpersonal system, with its own hierarchy and rules that govern family members' behavior. When a member of the family has a psychological disorder, family systems theorists see it not as a problem within the individual but as an indication of a dysfunctional family system.
- Third-wave approaches generally combine methods and theories from the cognitive and behavioral approaches with practices derived from Buddhist mindfulness meditation to help people accept painful thoughts and emotions and regulate them more healthfully.
- Sociocultural theories suggest that socioeconomic stress, discrimination, and social upheaval can lead to mental health problems in individuals. Cultures also have implicit and explicit rules regarding the types of abnormal behavior they permit.
- Some clients may wish to work with therapists of the same culture or gender, but it is unclear whether matching therapist and client in terms of culture and gender is necessary for therapy to be effective. It is important that therapists be sensitive to the influences of culture and gender on a client's attitudes toward therapy and toward various solutions to problems.
- Prevention programs focus on preventing disorders before they develop, retarding the development of disorders in their early stages, and reducing the impact of disorders on people's functioning.
- Common components of effective therapy seem to be a good therapist-client relationship, an explanation for symptoms, and the confrontation and expression of negative emotions.

KEY TERMS

sociocultural approach
 biological approach
 psychological approach
 theory
 biopsychosocial approach
 diathesis-stress model
 cerebral cortex
 thalamus
 hypothalamus
 limbic system
 amygdala
 hippocampus
 neurotransmitters
 synapse
 receptors
 reuptake
 degradation
 endocrine system
 hormone

pituitary
 behavior genetics
 polygenic
 epigenetics
 antipsychotic drugs
 antidepressant drugs
 lithium
 anticonvulsants
 anti-anxiety drugs
 electroconvulsive therapy (ECT)
 psychosurgery
 behavioral approaches
 classical conditioning
 unconditioned stimulus (US)
 unconditioned response (UR)
 conditioned stimulus (CS)
 conditioned response (CR)
 operant conditioning
 modeling

observational learning
behavioral therapies
systematic desensitization therapy
desensitization
flooding
cognitive theories
cognitions
causal attribution
global assumptions
cognitive therapies
cognitive-behavioral therapy (CBT)
psychodynamic theories
psychoanalysis
catharsis
repression
libido
id
ego
superego
unconscious
preconscious
conscious
defense mechanisms

psychosexual stages
ego psychology
object relations
self psychology
relational psychoanalysis
collective unconscious
psychodynamic therapies
free association
resistance
transference
working through
interpersonal therapy (IPT)
humanistic theories
self-actualization
humanistic therapy
client-centered therapy (CCT)
reflection
family systems theories
family systems therapy
third-wave approaches
primary prevention
secondary prevention
tertiary prevention

Chapter 3



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Assessing and Diagnosing Abnormality

CHAPTER OUTLINE

Assessment and Diagnosis Along the Continuum

Extraordinary People: Marya Hornbacher

Assessment Tools

Challenges in Assessment

Diagnosis

Shades of Gray

Chapter Integration

Shades of Gray Discussion

Chapter Summary

Key Terms