01 - 15 Psychological Disorders

15 Psychological Disorders

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M arc Summers had a lot of worries as a child. These were not the usual worries children have about big dogs or doing well in school, however, as he describes in his autobiography, Everything in Its Place (Summers, 2000, p. 42): I thought my parents would die if I didn't do everything in exactly the right way. When I took my glasses off at night I'd have to place them on the dresser at a particular angle. Sometimes I'd turn on the light and get out of bed seven times until I felt comfortable with the angle. If the angle wasn't right, I felt that my parents would die. The feeling ate up my insides. If I didn't grab the molding on the wall just the right way as I entered or exited my room; if I didn't hang a shirt in the closet perfectly; if I didn't read a paragraph a certain way; if my hands and nails weren't perfectly clean, I thought my incorrect behavior would kill my parents. Most of us have concerns, but Marc Summers' concerns seem extreme. Some people might say they are so extreme as to be abnormal, even crazy. In this chapter, we explore the concept of abnormality. We will see that sometimes the line between normal and abnormal is clear, but most of the time it is fuzzy. We will investigate in detail several specific types of abnormality and theories of why some people develop psychological disorders and others do not. A word of warning may be appropriate before we proceed. It is common for students studying abnormal psychology for the first time to diagnose mental disorders in themselves, just as medical students diagnose themselves as suffering from every new disease they read about. Most of us have had some of the symptoms we will be describing, and that is not cause for alarm. However, if you have been bothered by distressing feelings for a long time, it never hurts to talk to someone about them – perhaps someone in your school's counseling service or student health service. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk CHAPTER OUTLINE DEFINING ABNORMALITY Deviation from cultural norms Deviation from statistical norms Maladaptive behavior Personal distress What is normality? Classifying mental health problems Perspectives on mental health problems ANXIETY DISORDERS Panic disorders Understanding panic disorder and agoraphobia Phobias Understanding phobias Obsessive-compulsive disorder Understanding obsessive-compulsive disorder MOOD DISORDERS Depression Bipolar disorder Understanding mood disorders CUTTING EDGE RESEARCH: UNDERSTANDING SUICIDE SCHIZOPHRENIA Characteristics of schizophrenia Motor symptoms and withdrawal from reality Culture and the progression of

schizophrenia Understanding schizophrenia PERSONALITY DISORDERS Antisocial personality disorder Understanding antisocial personality disorder Borderline personality disorder Understanding borderline personality disorder PERVASIVE DEVELOPMENTAL DISORDERS Diagnosis of autism Asperger's syndrome and other pervasive developmental disorders Understanding pervasive developmental disorders SEEING BOTH SIDES: IS ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADHD) OVERDIAGNOSED? 537

538 CHAPTER 15 PSYCHOLOGICAL DISORDERS DEFINING ABNORMALITY What do we mean by 'abnormal' behavior? By what criteria do we distinguish it from 'normal' behavior? In this age of rapid technological advances, you might think that there would be some objective test – a blood test or brain scan – that could determine whether an individual has a mental disorder. There is no such test currently, however. Instead, we must rely on signs and symptoms, and on subjective criteria for deciding when those symptoms constitute abnormality. A number of different types of criteria for defining abnormality have been proposed. Deviation from cultural norms Every culture has certain standards, or norms, for acceptable behaviors and ways of thinking, and deviations from those norms may be considered abnormal. Proponents of a cultural relativist perspective argue that we should respect each culture's definitions of abnormality for the members of that culture. By doing so, we do not impose one culture's standards on another. Opponents of this position point to a number of dangers, however (Szasz, 1971). Throughout history, societies have labeled individuals as abnormal to justify controlling or silencing them, as Hitler branded the Jews abnormal to justify the Holocaust. Another problem is that the concept of abnormality changes over time within the same society. Fifty years ago, many Europeans would have considered men wearing earrings abnormal. Today, such behaviors ª BETTMANN CORBIS ª IMAGEBROKER / ALAMY Fashions change over time – just as definitions of abnormality do. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk tend to be viewed as differences in lifestyle rather than as signs of abnormality. Thus, ideas of normality and abnormality differ from one society to another and over time within the same society. Deviation from statistical norms The word abnormal means away from the norm. Many characteristics, such as height, weight, and intelligence, cover a range of values when measured over an entire population. Most people, for example, fall within the middle range of height, and a few are unusually tall or unusually short. One definition of abnormality therefore is based on deviation from statistical norms: Abnormal behaviors, thoughts, or feelings are statistically infrequent or deviant from the norm. But according to this definition, a person who is extremely intelligent or extremely happy would be classified as abnormal. Thus, in defining abnormality, we must consider more than statistical frequency. Maladaptive behavior Rather than defining abnormality in terms of deviance from either statistical or societal norms, many social scientists believe that the most important criterion is how the behaviors, thoughts or feelings affect the well-being of the individual or the social group. According to this criterion, experiences raise concern if they are maladaptive – that is, if they have adverse effects on the individual or on society. Some kinds of behavior interfere with the welfare of the individual (a man who is so fearful of crowds that he cannot ride the bus to work, individuals who drink alcohol so heavily that they cannot hold a job, a woman who attempts suicide). Other forms of behavior are harmful to society (an adolescent who has violent aggressive outbursts, a paranoid individual who plots to assassinate national leaders). If we use the criterion of maladaptiveness, all of these behaviors would be considered of concern. Personal distress A fourth criterion considers abnormality in terms of individuals' subjective feelings of distress – their feelings of anxiety, depression, or agitation, or experiences such as insomnia, loss of appetite, or numerous aches and

pains. Most people who are diagnosed with a

mental disorder feel acutely miserable. Sometimes personal distress may be the only symptom of the disorder, and the individual's behavior may appear normal to the casual observer. None of these definitions provides a completely satisfactory description of abnormality. In most instances, all four criteria – social deviation, statistical frequency, maladaptive behavior, and personal distress – are considered in diagnosing mental health problems. What is normality? Normality is even more difficult to define than abnormality, but most psychologists would agree that the characteristics in the following list indicate emotional wellbeing. (Note that these characteristics do not make sharp distinctions between the health and the lack of health. Rather, they represent traits that a normal person possesses to a greater degree than an individual who has mental health problems.)

1. Appropriate perception of reality. Healthy individuals are fairly realistic in appraising their reactions and capabilities and in interpreting what is going on in the world around them. They do not consistently misperceive what others say and do, and they do not consistently overrate their abilities and tackle more than they can accomplish, nor do they underestimate their abilities and shy away from difficult tasks.
2. Ability to exercise voluntary control over behavior. Healthy individuals feel fairly confident about their ability to control their behavior. Occasionally they may act impulsively, but they are able to restrain their sexual and aggressive urges when necessary. They may fail to conform to social norms, but in such instances their decisions are voluntary rather than the result of uncontrollable impulses.
3. Self-esteem and acceptance. Well-adjusted people have some appreciation of their own worth and feel accepted by those around them. They are comfortable with other people and are able to react spontaneously in social situations. At the same time, they do not feel obligated to completely subjugate their opinions to those of the group. Feelings of worthlessness, alienation, and lack of acceptance are prevalent among individuals who are diagnosed as abnormal.
4. Ability to form affectionate relationships. Healthy individuals are able to form close and satisfying relationships with other people. They are sensitive to the feelings of others and do not make excessive demands on others to gratify their own needs. Often, people with mental health problems are so concerned with protecting their own security that they become extremely self-centered. Preoccupied with their own feelings and strivings, they seek affection but are For more Cengage Learning textbooks, visit www.cengagebrain.co.uk DEFINING ABNORMALITY ª VLADIMIR WRANGEL j DREAMSTIME.COM Healthy individuals are able to form close and satisfying relationships with other people. unable to reciprocate. Sometimes they fear intimacy because their past relationships have been destructive.
5. Productivity. Well-adjusted people are able to channel their abilities into productive activity. They are enthusiastic about life and do not need to drive themselves to meet the demands of the day. Chronic lack of energy and excessive susceptibility to fatigue are often symptoms of psychological tension resulting from unsolved problems. Classifying mental health problems Some mental health problems are acute and transitory, resulting from particularly stressful events, whereas others are chronic and lifelong. Each person's behavior and emotionalproblemsareunique,andnotwoindividualsbehavein exactly the same manner or share the same life experiences. Still, for the purposes of diagnosis and

> research, mental health professionals have developed systems to classify maladaptive and distressing symptoms into disorders. A good classification system has many advantages. If the various types of mental health problems have different causes, we can hope to uncover them by grouping individuals according to similarities in symptoms and then looking for other ways in which they may be similar. A diagnostic label also enables those who work with individuals with mental health problems to communicate information more quickly and concisely. The diagnosis of post-traumatic stress disorder indicates quite a bit about a person's behavior. Knowing that an individual's symptoms are similar to those of other persons with the diagnosis is also helpful in deciding how to treat the individual. Disadvantages arise, however, if we allow a diagnostic label to carry too much weight. Labeling induces us to overlook the unique features of each case and expect the person to conform to the classification. We may also forget that a label for maladaptive behavior

is not an explanation of that behavior. The classification does not tell us how the symptoms originated or what causes them to continue. Finally, being diagnosed with a mental health problem can carry stigma in many societies. The classification of mental disorders published by the World Health Organization is the International Classification of Diseases (known as ICD-10). It corresponds generally to the system used in the United States, the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV for short). The major categories of mental disorders classified by ICD-10 are listed in the Concept Review Table. ICD-10 provides an extensive list of subcategories under each of these headings, as well as a description of the symptoms that must be present for the diagnosis to be applicable. A distinction that is traditionally made in classifying mental health problems is between neuroses and psychoses. Neuroses tend to be characterized by anxiety, unhappiness, and maladaptive behavior that are rarely serious enough to require hospitalization. The neurotic individual can usually function in society, though not at full capacity. Psychoses are more serious mental disorders. The individual's behavior and thought processes are so disturbed that he or she is out of touch with reality, cannot cope with the demands of daily life, and sometimes has to be hospitalized. Older diagnostic systems used the terms neuroses and psychoses to refer to a wide range of mental disorders, leading to significant imprecision in diagnosis. The ICD-10 and DSM-IV have defined mental disorders more narrowly, and consequently allow for more precision in diagnosis and agreement between CONCEPT REVIEW TABLE Categories of mental disorders Listed here are the main diagnostic categories of mental disorders in the ICD-10. Each category includes numerous subclassifications. Category Description Organic, including symptomatic, mental disorders Cognitive impairment due to brain disease or injury, such as Alzheimer's disease, delirium, and organic amnesia. Mental and behavioral disorders due to psychoactive substance use Misuse of, and dependence on, psychoactive substances, including alcohol, illicit drugs, and prescription drugs. Schizophrenia, schizotypal and delusional disorders Disorders characterized by distortions of thought and perception and emotions that are inappropriate or blunted. At some phase, delusions and hallucinations usually occur. Mood (affective) disorders Disturbances of normal mood; the individual may be extremely depressed, abnormally elated, or may alternate between periods of elation and depression. Neurotic, stress-related and somatoform disorders Disorders characterized by excessive anxiety, extreme and persistent reactions to stress, and alterations in consciousness and identity due to emotional problems, and presentation of physical symptoms that appear to have no medical basis. Behavioral syndromes associated with physiological disturbances and physical factors Eating disorders, sleep

disorders, sexual disorders, and disorders occurring during the postpartum period. Disorders of adult personality and behavior Long-standing patterns of maladaptive behavior that constitute immature and inappropriate ways of coping with stress or solving problems. Examples are antisocial personality disorder and paranoid personality disorder. General learning disability Arrested or incomplete development of mind, resulting in impairment of skills. Disorders of psychological development Disorders with onset in childhood resulting in impairment or delay of language, visual-spatial, and motor skills. Behavioral and emotional disorders with onset usually occurring in childhood and adolescence Hyperkinetic disorders (difficulties in persistence and attention, hyperactivity), conduct disorders (antisocial behavior), emotional disorders, difficulties in attachment, tic disorders, and various other problems first occurring in childhood or adolescence. CHAPTER 15 PSYCHOLOGICAL DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

clinicians as to what mental disorder might apply in a given case. In this chapter, we will examine anxiety disorders, mood disorders, schizophrenia, two types of personality disorder and pervasive developmental disorders. Alcoholism and drug dependence (both classified as psychoactive substance use disorders) are covered in Chapter 6. Table 15.1 indicates the likelihood of experiencing some major mental health problems during one’s lifetime. These data come from interviews with over 20,000 people in six European countries. Men and women tend to be vulnerable to different types of problems. For example, men are much more likely than women to misuse alcohol or other drugs, but many more women than men suffer from mood or anxiety disorders. Many cultures recognize mental health problems that do not correspond to any disorders listed in the ICD-10 or DSM-IV (see Table 15.2). Some of these problems may have the same underlying causes as certain disorders recognized by the ICD-10 and DSM-IV but are manifested by different symptoms in other cultures. Others may be truly unique to the cultures in which they are found. The presence of such culture-bound syndromes suggests that the diagnoses listed in the ICD-10 and DSM-IV represent only the disorders that occur in mainstream European and American cultures rather than a universal list of disorders to which all humans are susceptible. This supports the views of those who argue that we cannot define abnormality without reference to the norms of a particular culture. Perspectives on mental health problems Attempts to understand the causes of mental health problems generally fall under one of the three broad perspectives we have discussed throughout this book. The biological perspective, also called the medical or disease model, suggests that mental health problems are due to brain disorders. Researchers using this approach look for Table 15.2 Culture-bound syndromes Some cultures have syndromes or mental disorders that are found only in that culture and that do not correspond to any ICD-10 or DSM-IV categories. (Based on APA, 2000) Syndrome Cultures where found Symptoms amok Malaysia, Laos, Philippines, Papua New Guinea, Puerto Rico, Navajos Brooding, followed by violent behavior, persecutory ideas, amnesia, exhaustion. More often seen in men than in women. ataque de nervios Latin America Uncontrollable shouting, crying, trembling, heat in the chest rising to the head, verbal or physical aggression, seizures, fainting. ghost sickness American Indians Nightmares, weakness, feelings of danger, loss of appetite, fainting, dizziness, hallucinations, loss of consciousness, sense of suffocation. koro Malaysia, China, Thailand Sudden and intense anxiety that the penis (in males) or the vulva and nipples (in females) will recede into body and cause death. latah East Asia Hypersensitivity to sudden fright, trance-like behavior. Most often seen in middle-aged women. susto Mexico, Central America Appetite disturbances, sleep disturbances, sadness, loss of motivation, feelings of low self-worth following a frightening event. Sufferers believe that their soul

has left their body. taijin kyofusho Japan Intense fear that one’s body displeases, embarrasses, or is offensive to others. Table 15.1 Lifetime prevalence rates of selected disorders Listed here are the percentage of individuals in six European countries who have experienced one of these mental disorders during their lifetime. These percentages are based on interviews with a sample of 21,425 individuals, over the age of 18. (From J. Alonso and colleagues (2004). Prevalence of mental disorders in Europe: Results from the European Study of the Epidemiology of Mental Disorders (ESEMeD) project. Acta Psychiatrica Scandinavica, 109 (Supl. 420), 21–27.) Disorder Percent Women Percent Men Total Anxiety disorders 17.5 9.5 13.6 Mood disorders 18.2 9.5 14.0 Alcohol use disorder 1.4 9.3 5,2 DEFINING ABNORMALITY For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

542 CHAPTER 15 PSYCHOLOGICAL DISORDERS genetic irregularities that may predispose a person to develop a particular mental health problem by affecting the functioning of the brain. They also look for abnormalities in specific parts of the brain and dysfunction in neurochemical systems in the brain and other parts of the body. Proponents of this perspective generally favor the use of drugs to treat mental health problems. There are a number of specific psychological perspectives that see mental health problems as problems in the functioning of the mind. The psychoanalytic perspective emphasizes unconscious conflicts, usually originating in early childhood, and the use of defense mechanisms to handle the anxiety generated by the repressed impulses and emotions. Bringing the unconscious conflicts and emotions into awareness presumably eliminates the need for the defense mechanisms and alleviates the disorder. The behavioral perspective investigates how fears become conditioned to specific situations and the role of reinforcement in the origin and maintenance of inappropriate behaviors. This approach looks at mental health problems from the standpoint of learning theory and assumes that maladaptive behaviors are learned. The cognitive perspective suggests that some mental problems stem from maladaptive cognitive processes and can be alleviated by changing these biased cognitions. The way we think about ourselves, the way we appraise stressful situations, and our strategies for coping with them are all interrelated. Cultural or sociological perspectives take the view that mental health problems are not situated in the brain or mind of the individual but in the social context in which the individual lives. Proponents of this perspective look to stresses in the physical and social environment, such as discrimination and poverty, that can interfere with people’s functioning. They also pay attention to how culture shapes the types of mental health problems people are most susceptible to and how they manifest their distress. The ideas embodied in these brief summaries will become clearer as we discuss them in relation to specific mental health problems. One way of integrating these factors is the vulnerability-stress model, which considers the interaction between a predisposition, which makes a person vulnerable for developing a particular mental health problem, and stressful environmental conditions encountered by that person. At the biological level, vulnerability might stem from genetic factors. This is evident in problems in which having a close relative with the same problems increases a person’s risk of developing them. At the psychological level, a chronic feeling of hopelessness and inadequacy might make an individual vulnerable to depression. Having a predisposition for a particular mental health problem does not guarantee that the person will develop it. Whether the predisposition leads to an actual problems often depends on the kinds of stressors, For more Cengage Learning textbooks, visit www.cengagebrain.co.uk including poverty, malnutrition, frustration, conflicts, and traumatic life events, that the individual encounters. The key point of the vulnerability-stress model is that both vulnerability and stress are necessary. It helps explain why some people develop serious psychological problems when confronted with a

minimum of stress while others remain healthy regardless of how difficult their lives may become. INTERIM SUMMARY l The labeling of behaviors, thoughts and emotions as abnormal is based on social norms, statistical frequency, maladaptiveness of behavior, and personal distress. l Characteristics of good mental health include efficient perception of reality, control of behavior, self-esteem, ability to form affectionate relationships, and productivity. l ICD-10 and DSM-IV are the classification systems used for mental health problems. Such classification systems help communicate information and provide a basis for research. l Theories about the causes of mental health problems and proposals for treating them can be grouped according to those that focus on the brain and other biological factors; those that focus on the mind, including psychoanalytic, behavioral, and cognitive perspectives; and those that focus on sociocultural and environmental factors. l The vulnerability-stress model emphasizes the interaction between a predisposition (biological and/or psychological) that makes a person vulnerable to a particular health problem and stressful environmental conditions encountered by the individual. CRITICAL THINKING QUESTIONS 1 Studying any mental health problem from one theoretical perspective holds the danger that the investigator will be biased to look for particular causes of the problem and to ignore other causes. But is it possible to study mental health problems from a totally atheoretical perspective – that is, to approach them with no presumptions about their likely causes? Why or why not? 2 People who are diagnosed with a mental disorder often say it is a relief to have a label for their distress. Why might this be true?

ANXIETY DISORDERS Most of us feel anxious and tense in the face of threatening or stressful situations. Such feelings are normal reactions to stress. Anxiety is considered unhealthy only when it occurs in situations that most people can handle with little difficulty. Anxiety disorders include a group of disorders in which anxiety either is the main symptom (generalized anxiety and panic disorders) or is experienced when the individual attempts to control certain maladaptive behaviors (phobic and obsessive-compulsive disorders). (Post-traumatic stress disorder, which involves anxiety following a traumatic event, was discussed in Chapter 14.) The following passage describes a person suffering from an anxiety disorder: Hazel was walking down a street near her home one day when she suddenly felt flooded with intense and frightening physical symptoms. Her whole body tightened up, she began sweating and her heart was racing, and she felt dizzy and disoriented. She thought, ‘I must be having a heart attack! I can’t stand this! Something terrible is happening! I’m going to die.’ Hazel just stood frozen in the middle of the street until an onlooker stopped to help her. There are four types of symptoms of anxiety, and Hazel was experiencing symptoms of each type. First, she had physiological or somatic symptoms: Her heart was racing, she was perspiring, and her muscles tensed. You may recognize these symptoms as part of the fight-or-flight response discussed in Chapter 14. This is the body’s natural reaction to a challenging situation – the physiological changes of the fight-or-flight response prepare the body to fight a threat or to flee from it. Second, Hazel had cognitive symptoms of anxiety: She was sure she was having a heart attack and dying. Third, Hazel had a behavioral symptom of anxiety: She froze, unable to move until help arrived. Fourth, she had the sense of dread and terror that make up the emotional symptoms of anxiety. All of these symptoms can be highly adaptive when we are facing a real threat, such as a saber-toothed tiger in prehistoric times or a burglar today. They become maladaptive when there is no real threat to fight against or flee from. Hazel’s symptoms were not triggered by a dangerous situation but came ‘out of the blue’. Even when these symptoms do arise in response to some perceived threat, they can be maladaptive when they are out of proportion to the threat or persist after the threat has passed. Many people with anxiety disorders seem to view

situations as highly threatening that most of us would consider benign, and they worry about those situations even when they are highly unlikely to occur. For example, people with social phobias are terrified of the possibility that they might embarrass themselves in For more Cengage Learning textbooks, visit www.cengagebrain.co.uk ANXIETY DISORDERS Table 15.3 Generalized anxiety The statements listed in this table are self-descriptions by individuals who have chronically high levels of anxiety. (From Abnormal Psychology The Problem of Maladaptive Behavior, 7/e, by I. G. Sarason & B. R. Sarason. Copyright © 1993 by I. G. Sarason and B. R. Sarason. Adapted by permission of Prentice-Hall, Upper Saddle River, NJ.) I am often bothered by the thumping of my heart. Little annoyances get on my nerves and irritate me. I often become suddenly scared for no good reason. I worry continuously, and that gets me down. I frequently get spells of complete exhaustion and fatigue. It is always hard for me to make up my mind. I always seem to be dreading something. I feel nervous and high-strung all the time. I often feel I cannot overcome my difficulties. I feel constantly under strain. public, and they therefore go to great lengths to avoid social situations. In one form of anxiety disorder, generalized anxiety disorder, the person experiences a constant sense of tension and dread. Inability to relax, disturbed sleep, fatigue, headaches, dizziness, and rapid heart rate are the most common physical complaints. In addition, the individual continually worries about potential problems and has difficulty concentrating or making decisions. When the individual finally makes a decision, it becomes a source of further worry (‘Did I foresee all the possible consequences?’). Some self-descriptions provided by people with chronically high levels of anxiety appear in Table 15.3. Other anxiety disorders, such as panic disorder, phobias, and obsessive-compulsive disorder, are characterized by more focused anxiety and are discussed in more detail in the rest of this section. Panic disorders Hazel’s symptoms suggest that she experienced a panic attack – an episode of acute and overwhelming apprehension or terror. During panic attacks, the individual feels certain that something dreadful is about to happen. This feeling is usually accompanied by such symptoms as heart palpitations, shortness of breath, perspiration, muscle tremors, faintness, and nausea. The symptoms result from excitation of the sympathetic division of the autonomic nervous system (see Chapter 2) and are the same reactions that an individual experiences when extremely frightened. During severe panic attacks, the person fears that he or she will die.

544 CHAPTER 15 PSYCHOLOGICAL DISORDERS As many as 28 percent of adults have occasional panic attacks, especially during times of stress (Kessler, Chiu, Jin, Ruscio, Shear, & Walters, 2006). For most of these people, the panic attacks are annoying but isolated events that do not change how they live their lives. When panic attacks become a common occurrence and the individual begins to worry about having attacks, he or she may receive a diagnosis of panic disorder. Panic disorder is relatively rare: Only about 2.1 percent of European adults will ever develop a panic disorder (Alonso et al., 2004). Usually panic disorder appears sometime between late adolescence and the mid-30s. Without treatment, panic disorder tends to become chronic. Panic-like symptoms may take a different form across cultures. People from Latino cultures, particularly in the Caribbean, sometimes experience a sudden rush of anxiety symptoms known as ataque de nervios. The symptoms of ataque include trembling, feelings of out of control, sudden crying, screaming uncontrollably, verbal and physical aggression, and sometimes seizure-like or fainting episodes and suicidal gestures (Lopez & Guarnaccia, 2000). When ataque de nervios comes out of the blue, it is often attributed to the stresses of daily living or to spiritual causes. A study of Puerto Ricans after the 1985 floods found that 16 percent of the victims reported experiencing an ataque (Guarnaccia, Canino, RubioStipec, & Bravo, 1993). People with panic disorder may believe that they have a life-

threatening illness, such as heart disease or susceptibility to stroke, even after such illnesses have been ruled out by medical examinations. They may go from one physician to another, searching for the one who can diagnose their ailments. They may also believe that they are ‘going crazy’ or ‘losing control’. If their symptoms go untreated, they may become depressed and demoralized. About 20 percent of people with panic disorder also develop agoraphobia (Kessler et al., 2006). People with agoraphobia fear any place where they might be trapped or unable to receive help in an emergency. The emergency they most often fear is having a panic attack. The term agoraphobia comes from the ancient Greek words meaning ‘fear of the marketplace’. People with agoraphobia fear being in a busy, crowded place such as a shopping mall. They may also fear being in tightly enclosed spaces from which it can be difficult to escape, such as a bus, elevator, or subway, or being alone in wideopen spaces such as a meadow or a deserted beach. All of these places are frightening for people with agoraphobia because if a panic attack or some other emergency occurred, it would be very difficult for them to escape or get help. They may also fear that they will embarrass themselves when others see that they are having a panic attack, even though other people usually cannot tell when a person is having a panic attack. People with agoraphobia avoid all the places they fear. They significantly curtail their activities, remaining in a For more Cengage Learning textbooks, visit www.cengagebrain.co.uk few ‘safe’ places, such as the area within a few blocks of home. Sometimes they can venture into ‘unsafe’ places if a trusted family member or friend accompanies them. If they attempt to enter ‘unsafe’ places on their own, however, they may experience a great deal of general anxiety beforehand and have a full panic attack when in the unsafe place. Hazel, whom we met earlier in the chapter, provides an example: Hazel continued to have panic attacks every few days, sometimes on the same street where she had the first panic attack, but increasingly in places where she’d never had a panic attack before. It seemed she was especially likely to have a panic attack if there were lots of people standing around her, and she became confused about how she would get out of the crowd if she began to panic. The only place Hazel had not had any panic attacks was in her apartment. She began to spend more and more time in her apartment and refused to go anyplace where she had previously had a panic attack. After a few months, she had called in sick to work so often that she was fired. Hazel could not bring herself to leave her apartment at all. She had her groceries delivered to her so she wouldn’t have to go out to get them. She would see friends only if they would come to her apartment. Hazel’s savings were becoming depleted, however, because she had lost her job. Hazel began looking for a job that she could do from her apartment. Although people can develop agoraphobia without panic attacks, the vast majority of people with agoraphobia do have panic attacks or panic-like symptoms in social situations (Alonso et al., 2004). Agoraphobia usually develops within a year of the onset of recurrent panic attacks. Obviously, the symptoms of agoraphobia can severely interfere with the ability to function in daily life. People with agoraphobia often turn to alcohol and other drugs to cope with their symptoms. Fortunately, we have learned a great deal about the causes of panic and agoraphobia in recent years. Understanding panic disorder and agoraphobia Many people who develop panic disorder probably have a genetic or other biological vulnerability to the disorder. Panic disorder runs in families (Foley et al., 2001; van den Heuvel, van de Wetering, Veltman, & Pauls, 2000). This does not mean, of course, that panic disorders are entirely hereditary, in that family members live in the same environment. However, the results of twin studies provide firmer evidence for an inherited predisposition for panic disorder. Recall that identical twins share the same heredity; thus, if a disorder is transmitted entirely genetically, when one identical twin suffers from the disorder, the other twin should be highly likely to suffer from the disorder. In contrast, fraternal twins are no more alike

genetically than ordinary siblings, so that when one twin suffers from the disorder, the other twin should not be at greatly increased risk for the disorder. Twin studies have shown than an identical twin is twice as likely to suffer panic disorder if the other twin does than is true for fraternal twins (Hettema, Neale, & Kendler, 2001). People who are prone to panic attacks may have an overreactive fight-or-flight response. A full panic attack can be induced easily by having such individuals engage in activities that stimulate the initial physiological changes of the fight-or-flight response. For example, when people with panic disorder purposely hyperventilate, breathe into a paper bag, or inhale a small amount of carbon dioxide, they experience an increase in subjective anxiety, and many will experience a full panic attack (see Figure 15.1; Craske & Waters, 2005). In contrast, people without a history of panic attacks may experience some physical discomfort while performing these activities, but they rarely experience a full panic attack. Percent reporting panic Percent reporting panic 60 47% 20 8% Panic disorder patients Controls a) After hyperventilating 80 65% 40 12% Panic disorder patients Controls b) After inhaling carbon dioxide Figure 15.1 Panic Attacks of Patients and Controls. People with panic disorder are much more likely than people without panic disorder to have a panic attack when made to hyperventilate or inhale small amounts of carbon dioxide in laboratory experiments. (Adapted from R. M. Rapee, T. A. Brown, M. M. Anthony, & D. H. Barlow (1992), 'Response to hyperventilation and inhalation of 5.5% carbon-dioxide-enriched air across the DSM-III-R anxiety disorders', Journal of Abnormal Psychology, 101, 538–552. Copyright © 1992 by the American Psychological Association. Adapted with permission.) For more Cengage Learning textbooks, visit www.cengagebrain.co.uk ANXIETY DISORDERS This overreactive fight-or-flight response may be the result of abnormal functioning in areas of the brain that regulate this response. Some studies show that people with panic disorder have reduced metabolism in the amygdala, hippocampus, thalamus, and brain-stem area, which are important in regulating responses to fear (Roy-Byrne, Craske, & Stein, 2006). People with panic disorder also show functioning in neurotransmitter systems critical to the fear response, including gammaaminobutyric acid (GABA) and serotonin. These brain and neurotransmitter abnormalities could cause hyperactivation and poor regulation of fear responses. An overreactive fear response may not be enough to create a full panic disorder, however. Some people who have occasional panic attacks associate slight changes in bodily functioning that occur during a panic attack, such as a change in heart rate, with the full-blown terror of a panic attack, a process known as interoceptive conditioning (Bouton, Mineka, & Barlow, 2001). Thus, when these slight bodily changes occur, even if the individual is not consciously aware of them, they elicit a conditioned fear and panic because of previous pairings with the terror of panic, and the individual is on his or her way into a full-blown panic attack. In addition, people who develop panic disorder tend to pay very close attention to their bodily sensations, misinterpret bodily sensations in a negative way, and engage in catastrophic thinking (Clark, 1988; Craske & Waters, 2005). In the case described earlier, when Hazel felt her muscles tightening, she began thinking, 'I'm having a heart attack! I'm going to die!' Not surprisingly, these thoughts increased her emotional symptoms of anxiety, which in turn made her physiological symptoms worse – her heart rate increased even more, and her muscles felt even tighter. Interpreting these physiological changes catastrophically led to a full panic attack. Between attacks, Hazel is hypervigilant, paying close attention to any bodily sensation. Her constant vigilance causes her autonomic nervous system to be chronically aroused, making it more likely that she will have another panic attack. How does agoraphobia develop out of panic disorder? According to the cognitive-behavioral theory, people with panic disorder remember vividly the places where they have had attacks. They greatly fear those places, and that fear generalizes to all similar places. By avoiding those places, they reduce their anxiety, and their

avoidance behavior thus is highly reinforced. They may also find that they experience little anxiety in particular places, such as their own homes, and this reduction of anxiety is also highly reinforcing, leading them to confine themselves to these ‘safe’ places. Salkovskis (1991) has labeled such avoidance safety behaviors. Thus, through classical and operant conditioning, their behaviors are shaped into what we call agoraphobia. As we will see, many of the anxiety disorders are characterized by the kinds of safety behaviors that contribute to agoraphobia.

546 CHAPTER 15 PSYCHOLOGICAL DISORDERS What evidence is there for this cognitive-behavioral theory of panic and agoraphobia? Several laboratory studies support the contentions that cognitive factors play a strong role in panic attacks and that agoraphobic behaviors may be conditioned through learning experiences (Craske & Waters, 2005). In one study, researchers asked two groups of individuals with panic disorder to wear masks through which they would inhale slight amounts of carbon dioxide. Both groups were told that, although inhaling a slight amount of carbon dioxide was not dangerous to their health, it could induce a panic attack. One group was told that they could not control the amount of carbon dioxide that came through their masks. The other group was told that they could control how much carbon dioxide they inhaled by turning a knob. Actually, neither group had any control over the amount of carbon dioxide they inhaled, and both groups inhaled the same small amount. Eighty percent of the individuals who believed that they had no control experienced a panic attack, but only 20 percent of those who believed that they could control the carbon dioxide had an attack. These results clearly suggest that beliefs about control over panic symptoms play a strong role in panic attacks (Sanderson, Rapee, & Barlow, 1989). In a study focusing on agoraphobic behaviors, researchers examined whether people with panic disorder could avoid having a panic attack, even after inhaling carbon dioxide, by having a ‘safe person’ nearby. Panic patients who were exposed to carbon dioxide with their safe person present were much less likely to experience the emotional, cognitive, and physiological symptoms of panic than panic patients who were exposed to carbon dioxide without their safe person present (see Figure 15.2; Carter, Hollon, Caron, & Shelton, 1995). These results show that the symptoms of panic become associated with certain situations and that operant behaviors such as sticking close to a ‘safe person’ can be reinforced by the reduction of panic symptoms. The biological and cognitive-behavioral theories of panic disorder and agoraphobia thus can be integrated into a vulnerability-stress model (Roy-Byrne et al., 2006; see Figure 15.3). People who develop panic disorder may have a genetic or biochemical vulnerability to an overreactive fight-or-flight response, so that even with only a slight triggering stimulus, their bodies experience all the physiological symptoms of the response. For a full panic disorder to develop, however, it may be necessary for these individuals to develop a fear of bodily changes, through interoceptive conditioning, and also be prone to catastrophizing these symptoms and worrying excessively about having panic attacks. Interoceptive conditioning and misappraisals further heighten their physiological reactivity, making it even more likely that they will experience a full fight-or-flight response. Agoraphobia develops when they begin to avoid places that they associate with their panic symptoms and confine themselves For more Cengage Learning textbooks, visit www.cengagebrain.co.uk With a safe person Without a safe person 8 Mean panic symptoms 4 0 Emotional symptoms Cognitive symptoms Physiological symptoms Figure 15.2 Panic Symptoms in Panic Patients With and Without a Safe Person Available. Panic patients were much more likely to show symptoms of panic when a safe person was not with them. (After Carter, Hollon, Caron, & Shelton, 1995) Biological predisposition to overreactive fight-or-flight response + Cognitive predisposition to catastrophizing cognitions Excessive fight-or-flight response easily triggered Frequent panic attacks Person avoids

places associated with panic Avoidance reinforced by reduction of anxiety Agoraphobia develops Figure 15.3 A Vulnerability-Stress Model of Panic and Agoraphobia. A combination of biological vulnerability to an overreactive fight-or-flight response plus cognitive vulnerability to catastrophizing cognitions may begin a chain of processes leading to panic and agoraphobia.

to places where they experience less anxiety. This vulnerability-stress model has led to exciting breakthroughs in the treatment of panic disorder and agoraphobia, which we will discuss in Chapter 16. Phobias A phobia is an intense fear of a stimulus or situation that most people do not consider particularly dangerous. The individual usually realizes this fear greater than what most people experience but still feels anxiety (ranging from strong uneasiness to panic) that can be alleviated only by avoiding the feared object or situation. Many of us have one or two significant fears – of snakes, insects, and heights, for example. However, a fear is usually not diagnosed as a phobic disorder unless it interferes considerably with the person's daily life. Examples might include a woman whose fear of enclosed places prevents her from entering elevators or a man whose fear of crowds prevents him from attending the theater or walking along congested sidewalks. The ICD-10 and DSM-IV divide phobic disorders into three broad categories: simple phobias, social phobias, and agoraphobia. We have already discussed agoraphobia. A simple phobia is a fear of a specific object, animal, or situation. Intense fears of snakes, germs, enclosed places, and darkness are examples. Some people may develop a simple phobia but be normal in other respects. In more serious cases, the individual has a number of phobias that interfere with many aspects of life and may be intertwined with obsessive or compulsive behavior. Simple phobias are quite common, with nearly 8 percent of the population in Europe having a diagnosable simple phobia at some time in their lives (Alonso et al., 2004). People with social phobia feel extremely insecure in social situations and have an exaggerated fear of embarrassing themselves. Often they are afraid that they will betray their anxiety by such signs as hand tremors, blushing, or a quavering voice. These fears are usually unrealistic: ªISTOCKPHOTO.COM/JIM JURICA One of the most common phobias is a snake phobia. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk ANXIETY DISORDERS Individuals who fear that they might shake do not do so; those who fear that they will stutter or quaver actually speak quite normally. Fear of public speaking or of eating in public are the most common complaints of socially phobic individuals. People with social phobias will go to great lengths to avoid situations in which others might evaluate them. They may take jobs that are solitary and isolating to avoid other people. If they find themselves in a feared social situation, they may begin trembling and perspiring, feel confused and dizzy, have heart palpitations, and eventually have a full panic attack. They are sure that others see their nervousness and are judging them as inarticulate, weak, stupid, or 'crazy'. Social phobia is less common than specific phobias, with about 2.4 percent of individuals in Europe qualifying for a diagnosis at some time in their lives (Alonso et al., 2004). Social phobia typically begins in adolescence and tends to be a chronic problem if it is not treated (Kessler et al., 1998). Understanding phobias Historically, phobias have been the subject of a major clash between psychodynamic theories and behavioral theories. Freud's theory of the development of phobias was one of his most famous and controversial. Freud argued that phobias result when people displace anxiety over unconscious motives or desires onto objects that symbolize those motives or desires. His classic example was the case of Little Hans, a 5-year-old who developed an intense fear of horses. Freud interpreted the boy's phobia in terms of Oedipal fears (see Chapter 13) through the following analysis: Hans was in love with his mother, jealously hated his father, and wanted to replace him (the Oedipal conflict); he feared that his father would retaliate by castrating

him; the anxiety produced by this conflict was enormous because the wishes were unacceptable to the child's conscious mind; the anxiety was displaced onto an innocent object (a large horse that Hans had seen fall down and thrash about violently in the street). Freud's evidence for his explanation of Hans's horse phobia consisted of Hans's answers to a series of rather leading questions about what he was 'really' afraid of, along with the fact that Hans appeared to lose his horse phobia after his conversations with Freud. Freud suggested that Hans had gained insight into the true source of his phobia and that this insight had cured the phobia. Critics pointed out, however, that Hans never provided any spontaneous or direct evidence that his real concern was his father rather than the horse. They also noted that Hans's phobia diminished gradually over time rather than abruptly in response to some sudden insight. Some of the severest critics of Freud's analysis of phobias were behaviorists (Watson & Raynor, 1920). They argued that phobias do not develop from unconscious

548 CHAPTER 15 PSYCHOLOGICAL DISORDERS ª RAMUNAS BRUZAS j DREAMSTIME.COM Some people develop phobias of water after frightening encounters with water. anxieties but rather from classical and operant conditioning. Many phobias emerge after a traumatic experience – a child nearly drowns and develops a phobia of water, another child is bitten by a dog and develops a phobia of dogs, an adolescent who stumbles through a speech in class is laughed at by peers and develops a phobia of public speaking. In these cases, a previously neutral stimulus (water or dogs or public speaking) is paired with a traumatic event (drowning or biting or embarrassment) that elicits anxiety. Through classical conditioning, the previously neutral stimulus now is able to elicit the anxiety reaction. In addition, many people with such fears avoid the phobic object because avoidance helps reduce their anxiety, and the phobic behavior is maintained through operant conditioning. Although some phobias appear to result from actual frightening experiences, others may be learned vicariously through observation (Muris, Steerneman, Mercklebach, & Meesters, 1996). Fearful parents tend to produce children who share their fears. A child who observes parents react with fear to a variety of situations may develop the same reactions to those situations. Indeed, studies find that phobias clearly run in families (Kendler et al., 2001). It is unclear whether this is due largely to children learning phobias from their parents or also partially due to genetic transmission of phobias. The first-degree relatives of people with phobias are three to four times more likely than others to also have a phobia, and twin studies suggest that this is due, at least in part, to genetics (Hettema et al., 2001). What is likely to be inherited is vulnerability to fear conditioning rather than the phobia per se (Hettema, Annas, Neale, Kendler, & Fredrikson, 2003). Behavioral theories have led to highly successful treatments for phobias, lending further support to these theories. In contrast, treatments based on psychodynamic theories of phobias tend to be unsuccessful, and current drug treatments tend to relieve phobic symptoms only in the short term. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk Obsessive-compulsive disorder A man gets out of bed several times each night and checks all the doors to make sure they are locked. Upon returning to bed, he is tormented by the thought that he may have missed one. Another man takes three or four showers in succession, scrubbing his body thoroughly with a special disinfectant each time, fearful that he may be contaminated by germs. A woman has recurrent thoughts about stabbing her infant and feels panic-stricken whenever she has to handle scissors or knives. A teenage girl is always late to school because she feels compelled to repeat many of her actions (replacing her brush on the dresser, arranging the school supplies in her book bag, crossing the threshold to her bedroom) a set number of times, usually some multiple of the number 4. All of these people have symptoms of obsessivecompulsive disorder: Their lives are

dominated by repetitive acts or thoughts. Obsessions are persistent intrusions of unwelcome thoughts, images, or impulses that elicit anxiety. Compulsions are irresistible urges to carry out certain acts or rituals that reduce anxiety. Obsessive thoughts are often linked with compulsive acts (for example, thoughts of lurking germs, which lead to the compulsion to wash eating utensils many times before using them). Regardless of whether the repetitive element is a thought (obsession) or an act (compulsion), the central feature of the disorder is the subjective experience of loss of control. The victims struggle mightily to rid themselves of the troublesome thoughts or resist performing the repetitive acts but are unable to do so. At times, all of us have persistently recurring thoughts ('Did I leave the gas on?') and urges to perform ritualistic behavior (arranging items on a desk in a precise order before starting an assignment). But for people with obsessive-compulsive disorders, such thoughts and acts occupy so much time that they seriously interfere with ª MURIEL LASURE j DREAMSTIME.COM Obsessions with germs may lead to compulsive hand washing.

daily life. These individuals recognize their thoughts as irrational and repugnant but are unable to ignore or suppress them. They realize the senselessness of their compulsive behavior but become anxious when they try to resist their compulsions, and feel a release of tension once the acts are carried out. Obsessive thoughts cover a variety of topics, but most often they are concerned with causing harm to oneself or others, fear of contamination, and doubt that a completed task has been accomplished satisfactorily (Hewlett, 2000; Rachman & Hodgson, 1980). Interestingly, the content of obsessions changes with the times. In earlier days, obsessive thoughts about religion and sex were common – for example, blasphemous thoughts or impulses to shout obscenities in church or expose one's genitals in public. These types of obsessions are less frequent today. And whereas obsessions about contamination used to focus on syphilis, AIDS has now become the object of many contamination fears. Some people with an obsessive-compulsive disorder have intrusive thoughts without engaging in repetitious actions. However, the majority of patients with obsessive thoughts also exhibit compulsive behavior. Compulsions take a variety of forms, of which the two most common are washing and checking (Foa & Steketee, 1989). 'Washers' feel contaminated when exposed to certain objects or thoughts and spend hours performing washing and cleaning rituals. 'Checkers' check doors, lights, ovens, or the accuracy of a completed task 10, 20, or 100 times or repeat ritualistic acts over and over again. They believe that their actions will prevent future 'disasters' or punishments. Compulsive acts that are meant to ward off the harm an individual is obsessing about are another example of safety behaviors. Sometimes these rituals are related to the anxiety-evoking obsessions in a direct way (for example, repeatedly checking to see if the stove has been turned off to avoid a possible fire); other rituals are not rationally related to the obsessions (for example, dressing and undressing in order to prevent one's spouse from having an accident). The common theme behind all of these repetitive behaviors is doubt. Obsessive-compulsive individuals cannot trust their senses or their judgment; they can't trust their eyes, even though they see no dirt, or really believe that the door is locked. Obsessive-compulsive disorders are related to phobic disorders in that both involve severe anxiety and both may appear in the same patient. However, there are important differences. Phobic patients seldom ruminate about their fears, nor do they show ritualistic compulsive behavior. And the two disorders are evoked by different stimuli. Dirt, germs, and harm to others – common obsessive-compulsive preoccupations – seldom cause major problems for phobic individuals. Obsessive-compulsive disorder often begins at a young age (Foa & Franklin, 2001). It tends to be chronic if left ANXIETY DISORDERS untreated. Obsessional thoughts are

very distressing, and engaging in compulsive behaviors can take a great deal of time and be highly maladaptive (for example, washing one's hands so often that they bleed). People with this disorder thus are quite psychologically impaired. Between 1 percent and 3 percent of people develop obsessivecompulsive disorder at some time in their lives (Hewlett, 2000). The prevalence of OCD does not seem to differ greatly across countries that have been studied, including the United States, Canada, Mexico, England, Norway, Hong Kong, India, Egypt, Japan, and Korea (Escobar, 1993; Insel, 1984; Kim, 1993). Understanding obsessive-compulsive disorder Cognitive and behavioral theorists suggest that people with obsessive-compulsive disorder have more trouble 'turning off' intrusive thoughts because they have a tendency toward rigid, moralistic thinking (Rachman, 1998; Salkovskis, 1999). They tend to feel responsible for preventing harmful things from happening. They are more likely to judge their negative, intrusive thoughts as unacceptable, and they become more anxious and guilty about these thoughts. This anxiety then makes it even harder to dismiss the thought. People with obsessivecompulsive disorder may also believe that they should be able to control all thoughts and have trouble accepting the fact that everyone has negative thoughts occasionally. They tend to believe that having these thoughts means they are going crazy, or they equate having the thought with actually engaging in the behavior ('If I'm thinking about hurting my child, I'm as guilty as if I actually did hurt my child'). Of course, this just makes them even more anxious when they have thoughts, because it's harder to dismiss them. Compulsions may develop when the obsessional person discovers that some behavior temporarily quells the obsession and the anxiety it arouses. This reduction in anxiety reinforces the behavior, and a compulsion is born: Every time the person has the obsession, he or she will feel compelled to engage in the behavior to reduce anxiety. This cognitive-behavioral account of OCD has received a considerable amount of empirical support (Julien, O'Connor, & Aardema, 2007). Some of the best evidence in favor of cognitive and behavioral perspectives on obsessive-compulsive disorder can be seen in the fact that therapies based on these perspectives are helpful to people with the disorder, as we will discuss in Chapter 16. Obsessive-compulsive disorder may also have biological causes. Some family research suggests that disordered genes may play a role in determining who is vulnerable to OCD (Mundo, Zanoni, & Altamura, 2006). Most of the biological research on OCD, however, has focused on a critical circuit in the brain. People with this disorder may have deficiencies in the neurotransmitter serotonin in the

areas of the brain that regulate primitive impulses about sex, violence, and cleanliness – impulses that are often the focus of obsessions (Rauch, 2003). An elaborate circuit in the brain seems to be involved, beginning with the frontal cortex (see Figure 15.4). Impulses arise here and are carried to a part of the basal ganglia called the caudate nucleus. The strongest impulses then travel to the thalamus, where they may be acted upon. As a result, primitive impulses may break through into consciousness and motivate the execution of stereotyped behaviors much more often in people with obsessive-compulsive disorder than in normal individuals. Neuroimaging studies of people with obsessivecompulsive disorder show aberrant activity in the areas of the brain involved in this primitive circuit compared to people without the disorder (Rauch et al., 2007). In addition, people with the disorder often get some relief from their symptoms when they take drugs that regulate serotonin levels (Dell'Osso, Nestadt, Allen, & Hollander, 2006). Finally, patients who respond well to these drugs tend to show greater reductions in the rate of activity in these brain areas than patients who do not respond well to these drugs (Baxter et al., 1992; Swedo et al., 1992). Interestingly, OCD patients who respond to behavior therapies also tend to show decreases in activity in the caudate nucleus and thalamus (see Figure 15.5; Schwartz, Stoessel, Baxter, Martin &

Phelps, 1996). In sum, biological and psychological factors probably combine in creating many of the anxiety disorders. Many people who develop these disorders probably have a genetic, neurological, or biochemical vulnerability to anxiety. But it may be necessary for them also to have a tendency toward catastrophizing and engaging in maladaptive avoidant behaviors that reduce anxiety for a full anxiety disorder to develop. Putamen and globus pallidus Caudate nucleus Cerebral cortex Basal ganglia Cingulate gyrus Cerebellum Thalamus Orbital frontal cortex Corpus callosum Frontal cortex Figure 15.4 The Human Brain and OCD. This three-dimensional view of the human brain shows the locations of the orbital frontal cortex and the basal ganglia – areas implicated in obsessive-compulsive disorder. Among the basal ganglia's structures are the caudate nuclei, which filter powerful impulses that arise in the orbital frontal cortex so that only the most powerful ones reach the thalamus. Figure 15.5 OCD Pretreatment Versus Posttreatment. PET studies show decreases in metabolic activity in the caudate nucleus in OCD patients after they have received behavior therapy. (From Schwartz, Stoessel, Baxter, Martin, & Phelps, 1996). Image courtesy of UCLA School of Medicine. CHAPTER 15 PSYCHOLOGICAL DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

INTERIM SUMMARY l Anxiety disorders include generalized anxiety (constant worry and tension), panic disorders (sudden attacks of overwhelming apprehension), phobias (irrational fears of specific objects or situations), and obsessivecompulsive disorders (persistent unwanted thoughts, or obsessions, combined with urges, or compulsions, to perform certain acts). l Biological theories of anxiety disorders attribute them to genetic predispositions or to biochemical or neurological abnormalities. Most anxiety disorders run in families, and twin studies strongly suggest that panic disorder and obsessive-compulsive disorder have an inherited component. l People who suffer panic attacks have an overreactive fight-or-flight response, perhaps because of serotonin deficiencies in the limbic system. l People with obsessive-compulsive disorder may have serotonin deficiencies in areas of the brain that regulate primitive impulses. l Cognitive and behavioral theorists suggest that people with anxiety disorders are prone to catastrophizing cognitions and to rigid, moralistic thinking. Maladaptive behaviors such as avoidant behaviors and compulsions arise through operant conditioning when the individual discovers that the behaviors reduce anxiety. Phobias may emerge through classical conditioning. l Psychodynamic theories attribute anxiety disorders to unconscious conflicts that are disguised as phobias, obsessions, or compulsions. CRITICAL THINKING QUESTIONS 1 Women are more likely than men to suffer from the anxiety disorders (except for obsessive-compulsive disorder). Can you generate some hypotheses for this gender difference? 2 Humans are much more likely to develop phobias of snakes and spiders than of guns or other modern weapons that are a greater danger to them. Can you generate an evolutionary explanation for this? MOOD DISORDERS Individuals with mood disorders may be severely depressed or manic (wildly elated), or may experience periods of depression as well as periods of mania. Mood disorders are divided into depressive disorders, in which For more Cengage Learning textbooks, visit www.cengagebrain.co.uk MOOD DISORDERS the individual has one or more periods of depression without a history of manic episodes, and bipolar disorders, in which the individual alternates between periods of depression and periods of mania, usually with a return to normal mood between the two extremes. Manic episodes without some history of depression are uncommon. Depression From the time I woke up on the morning until the time I went to bed at night, I was unbearably miserable and seemingly incapable of any kind of joy or enthusiasm. Everything – every thought, word, movement – was an effort. Everything that once was sparkling now was flat. I seemed to myself to be dull, boring, inadequate, thick brained, unlit, unresponsive,

chill skinned, bloodless and sparrow drab. I doubted, completely, my ability to do anything well. It seemed as though my mind had slowed down and burned out to the point of being virtually useless. The wretched, convoluted, and pathetically confused mass of gray worked only well enough to torment me with a dreary litany of my inadequacies and shortcomings in character and to taunt me with the total, the desperate hopelessness of it all. (Jamison, 1995, p. 110) Most of us have periods when we feel sad, lethargic, and uninterested in any activities – even pleasurable ones. Mild depressive symptoms are a normal response to many of life's stresses, especially important losses. Depression becomes a disorder when the symptoms become so severe that they interfere with normal functioning, and when they continue for weeks at a time. Depressive disorders are relatively common, with about 13 percent of people having an episode of severe depression such as Jamison describes at some time in their lives (Alonso et al., 2004). Women are twice as likely as men to develop depression. Although depression is characterized as a mood disorder, it is truly a disorder of the whole person, affecting bodily functions, behaviors, and thoughts as well as emotions (see Figure 15.6). A person need not have all the symptoms of depression to be diagnosed with a disorder, but the more symptoms he or she has and the more intense they are, the more certain we can be that the individual is suffering from depression. The emotional symptoms of depression are not the everyday blues that we all experience from time to time, but an unrelenting pain and despair. People also report that they have lost the ability to experience joy, even in response to the most joyous occasions, a symptom referred to as anhedonia. They say that they don't find interacting with family or friends, their work, or their hobbies enjoyable anymore. The cognitive symptoms consist primarily of negative thoughts, with themes of worthlessness, guilt, hopelessness, and even suicide. Motivation is at a low ebb: The depressed person tends to be passive and has difficulty

552 CHAPTER 15 PSYCHOLOGICAL DISORDERS Emotional symptoms • Sadness • Loss of pleasure Cognitive symptoms • Negative views of self • Hopelessness • Poor concentration and memory; confusion DEPRESSION Physical symptoms • Changes in appetite and sleep • Fatigue • Increase in aches and pains Motivational symptoms • Passivity • Will not initiate or persist at activities Figure 15.6 The Symptoms of Depression. Depression includes emotional, cognitive, motivational, and physical symptoms. initiating activities. The following conversation between a patient and his therapist illustrates this passivity. The man, who had been hospitalized after a suicide attempt, spent his days sitting motionless in the lounge. His therapist decided to try to engage him in some activities: Therapist: I understand that you spend most of your day in the lounge. Is that true? Patient: Yes, being quiet gives me the peace of mind I need. Therapist: When you sit here, how's your mood? Patient: I feel awful all the time. I just wish I could fall in a hole somewhere and die. Therapist: Do you feel better after sitting for 2 or 3 hours? Patient: No, the same. Therapist: So you're sitting in the hope that you'll find peace of mind, but it doesn't sound like your depression improves. Patient: I get so bored. Therapist: Would you consider being more active? There are a number of reasons why I think increasing your activity level might help. Patient: There's nothing to do around here. Therapist: Would you consider trying some activities if I could come up with a list? Patient: If you think it will help, but I think you're wasting your time. I don't have any interests. (Beck, Rush, Shaw, & Emery, 1979, p. 200) Depressed people experience many physical symptoms. Their appetite may wane, they may sleep a great deal or For more Cengage Learning textbooks, visit www.cengagebrain.co.uk ª RAJA RC j DREAMSTIME.COM Some people suffer depression for years. very little, they tend to be very fatigued, and their energy is drained. Because a depressed person's thoughts are focused inward rather than toward external events, he or she

may magnify minor aches and pains and worry about health. As we see from this description of its symptoms, depression can be a debilitating disorder. Unfortunately, severe depression can also be long-lasting. One study of people with severe depression found that in a given year they were symptom-free only about 30 percent of the time (Kessler et al., 2003). Even if they recover from one bout of depression, people remain at high risk for relapses into new episodes. There is some good news, however. Episodes of depression can be greatly shortened – and new episodes prevented – with either drug therapy or psychotherapy, as we discuss in Chapter 16. Bipolar disorder The majority of depressions occur without episodes of mania. But some people with a mood disorder will experience both depression and mania and hence can be diagnosed with bipolar disorder, also known as manicdepression. The individual alternates between depression and extreme elation. In some cases the cycle between depressive episodes and manic episodes is swift, with only a brief return to normality in between.

People experiencing manic episodes behave in a way that appears on the surface to be the opposite of depression. During mild manic episodes, they are energetic, enthusiastic, and full of self-confidence. They talk continually, rush from one activity to another with little need for sleep, and make grandiose plans, paying little attention to their practicality, as Jamison (1995, pp. 36–37) describes: I was a senior in high school when I had my first attack. At first, everything seemed so easy. I raced about like a crazed weasel, bubbling with plans and enthusiasms, immersed in sports, and staying up all night, night after night, out with friends, reading everything that wasn’t nailed down, filling manuscript books with poems and fragments of plays, and making expansive, completely unrealistic plans for my future. The world was filled with pleasure and promise; I felt great. Not just great, I felt really great. I felt I could do anything, that no task was too difficult. My mind seemed clear, fabulously focused, and able to make intuitive mathematical leaps that had up to that point entirely eluded me. Indeed, they elude me still. At the time, however, not only did everything make perfect sense, but it all began to fit into a marvelous kind of cosmic relatedness. My sense of enchantment with the laws of the natural world caused me to fizz over, and I found myself buttonholing my friends to tell them how beautiful it all was. They were less than transfixed by my insights into the webbings and beauties of the universe although considerably impressed at how exhausting it was to be around my enthusiastic ramblings: You’re talking too fast, Kay. Slow down, Kay. You’re wearing me out, Kay. Slow down, Kay. And those times when they didn’t actually come out and say it, I still could see it in their eyes: For God’s sake, Kay, slow down. This kind of energy, self-confidence, and enthusiasm may actually seem quite attractive to you, and indeed, many people in the midst of a manic episode do not want to get rid of their symptoms. At some point, however, manic symptoms often cross a line from joyful exuberance into hostile agitation. People may become angered by attempts to interfere with their activities and become abusive. Impulses (including sexual ones) are immediately expressed in actions or words. People may become confused and disoriented and may experience delusions of great wealth, accomplishment, or power. Eventually, most manic episodes revert into episodes of depression, sometimes extremely severe. Bipolar disorders are relatively uncommon. Whereas about 17 percent of adult females and 9 percent of adult males in Europe will experience depression at some time in their lives, less than 2 percent of the adult population has had a bipolar disorder (Alonso et al., 2004). Bipolar disorder, which appears to be equally common in men and women, differs from other mood disorders in that it MOOD DISORDERS is more likely to run in families, responds to different medications, and almost always recurs if not treated. Understanding mood disorders As with the anxiety disorders, a combined

biological and psychological model may best explain the mood disorders. Most people who develop depression – and particularly bipolar disorder – may have a biological vulnerability to these disorders. But the experience of certain types of life events, along with a tendency to think in negative ways, also clearly increases the likelihood of developing these disorders. The biological perspective A tendency to develop mood disorders, particularly bipolar disorders, appears to be inherited. Family history studies of people with bipolar disorder find that their first-degree relatives (parents, children, and siblings) have five to ten times higher rates of both bipolar disorder and depressive disorders than relatives of people without bipolar disorder (Farmer, Elkin & McGuffin, 2007). Twin studies of bipolar disorder have also consistently suggested that the disorder has a genetic component. Indeed, the identical twins of individuals with bipolar disorder are 45 to 75 times more likely to develop the disorder than people in the general population (Farmer, Elkin, & McGuffin, 2007). There is increasing evidence that depression, particularly recurrent depression, also is heritable. Family history studies find that first-degree relatives of people with depression have two to four times higher rates of depression than others (Sullivan, Neale, & Kendler, 2000). Interestingly, relatives of depressed people do not have any greater risk of developing bipolar disorder than relatives of people with no mood disorder. This suggests that bipolar disorder has a different genetic basis from that of depression. Twin studies also suggest that depression is heritable but to a lesser degree than bipolar disorder (Sullivan et al., 2000). The specific role that genetic factors play in mood disorders is unclear. However, it seems likely that a biochemical abnormality is involved. A group of neurotransmitters called monoamines – norepinephrine, serotonin, and dopamine – are believed to play an important role in the mood disorders. Recall from Chapter 2 that neurotransmitters are synthesized by one neuron and released into the synapse, or gap between neurons. Then the neurotransmitter fits into receptors on the membrane of other neurons like a key in a lock (see Figure 15.7). When a neurotransmitter binds to a receptor, this sets off a cascade of biochemical processes within that neuron that transmits signals down the neuron. This process of neurotransmission can go awry at any stage – there may be an inappropriate amount of neurotransmitter released into the synapse, the number or sensitivity of receptors for

the neurotransmitter can be wrong, or the cascade of signals initiated by the binding of the neurotransmitter to the receptor can malfunctions. Several studies suggest that people with depression or bipolar disorder may have abnormalities at all the stages of neurotransmission for the monoamines, particularly in areas of the brain that are involved in the regulation of emotion, such as the hypothalamus (Belmaker & Agam, 2008). The structure and functioning of the brain also appear to be altered in people with mood disorders. Neuroimaging studies using computed tomography (CT) scans and magnetic resonance imaging (MRI) have found deterioration in the prefrontal cortex of people with severe unipolar depression or bipolar disorder (Dougherty & Rauch, 2007). This is associated with abnormalities in metabolism in this area of the brain, according to positron emission tomography (PET) studies. Figure 15.8 shows reduced activity in one area of the prefrontal cortex, the cingulate gyrus, in patients with bipolar disorder, as well as reductions in activity in the thalamus, an area of the brain associated with cognitive functioning and the regulation of emotion. Similarly, people who are depressed show variations in the functioning of the prefrontal cortex, as well as thalamus, hypothalamus, amygdala, and hippocampus, which are involved in the regulation of responses to stress and in sleep, appetite, sexual drive, motivation, and memory (see Figure 15.9; Southwick et al., 2005). These structural and functional brain abnormalities could be precursors and causes of mood disorders, or they could be the result of

biochemical processes in the mood disorders that have a toxic effect on the brain. We do not yet know the precise meaning of these abnormalities, but the rapid advances in neuroimaging technologies are sure to bring exciting new clues in the future. Serotonin Norepinephrine Norepinephrine receptor Serotonin receptor Figure 15.7 Neurotransmission in Depression. The neuronal receptors for norepinephrine and serotonin may not work efficiently in depressed people, so that norepinephrine and serotonin released from one neuron cannot bind to receptor sites on other neurons. Cingulate gyrus Thalamus Figure 15.8 PET Scans of Bipolar Disorder. PET scans in six control subjects and six patients with bipolar disorder. Note decreases in relative metabolic rate in the cingulate gyrus and thalamus in bipolar subjects. (Courtesy of Monte S. Buschbaum, M.D., Mt. Sinai School of Medicine, New York). CHAPTER 15 PSYCHOLOGICAL DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

The cognitive perspective Cognitive theories focus primarily on depression. According to these theories, people become depressed because they tend to interpret events in their lives in pessimistic, hopeless ways (Abramson et al., 2002). One of the most influential cognitive theorists, Aaron Beck, grouped the negative thoughts of depressed individuals into three categories, which he called the cognitive triad: negative thoughts about the self, about present experiences, and about the future (Beck, 1976). Negative thoughts about the self include the depressed person's belief that he or she is worthless and inadequate. The depressed person's negative view of the future is one of hopelessness. Depressed people believe that their inadequacies and defects will prevent them from ever improving their situation. Beck proposes that the depressed person's negative beliefs about self ('I am worthless', 'I can't do anything right') are formed during childhood or adolescence through such experiences as loss of a parent, social rejection by peers, criticism by parents or teachers, or a series of tragedies. These negative beliefs are activated whenever a new situation resembles in some way – perhaps only remotely – the conditions in which the beliefs were learned, and depression may result. Moreover, according to Beck, depressed individuals make some systematic errors in thinking that lead them to misperceive reality in a way that contributes to their negative beliefs about themselves. These cognitive distortions are listed in Table 15.4. Another cognitive approach to depression, which focuses on the kinds of attributions, or causal explanations, that people make when bad things happen, was discussed in Chapter 14. This theory proposes that people who tend to attribute negative events to causes that are internal ('it's my fault'), are stable over time ('it's going to last forever'), and affect many areas of their lives are more prone to depression than individuals who have a less pessimistic attributional style (Abramson, Metalsky, & Alloy, 1989; Peterson & Seligman, 1984). Evidence that cognitive factors play a role in depression comes from a study that followed students through their college careers. Researchers measured the students' tendencies toward negative thinking patterns early in Figure 15.9 Brain Functioning in Depression. This brain image shows increased metabolism in the medial thalamus of people with depression compared with those without depression. (Source: Drevets, W.C. (2000). Neuroimaging studies of mood disorders. Biological Psychiatry, 48, 813–829). Table 15.4 Cognitive distortions in depression According to Beck's theory, these are the principal errors in thinking that characterize depressed individuals. Overgeneralization Drawing a sweeping conclusion on the basis of a single event. For example, a student concludes from his poor performance in one class on a particular day that he is inept and stupid. Selective abstraction Focusing on an insignificant detail while ignoring the more important features of a situation. For example, from a conversation in which her boss praises her overall job performance, a secretary remembers the only comment that could be construed as mildly critical. Magnification and

minimization Magnifying small bad events and minimizing major good events in evaluating performance. For example, a woman gets a small dent in her car fender and views it as a catastrophe (magnification), while the fact that she gave an excellent presentation in class does nothing to raise her self-esteem (minimization). Personalization Incorrectly assuming responsibility for bad events in the world. For example, when rain dampens spirits at an outdoor buffet, the host blames himself rather than the weather. Arbitrary inference Drawing a conclusion when there is little evidence to support it. For example, a man concludes from his wife's sad expression that she is disappointed in him; if he had checked out the situation, he would have discovered that she was distressed by a friend's illness. MOOD DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

556 CHAPTER 15 PSYCHOLOGICAL DISORDERS their first year of college and followed them for the next few years. Students who evidenced a negative cognitive triad or a pessimistic attributional style were almost seven times more likely to experience episodes of depression during their college years than those who did not, even if they had never been depressed before going to college (Alloy, Abramson, Whitehouse, Hogan, Panzarella, & Rose, 2006). Depressed people tend to show biases not only in the content of their thinking but also in their processes of thinking. They tend to ruminate – to focus on their problems and feelings in a repetitive, circular manner without moving into problem-solving (Nolen-Hoeksema, Wisco, & Lyubormisky, 2008; Watkins, 2004). This tendency to ruminate is not just a symptom of depression – it predisposes people who are not already depressed to develop serious depression (Nolen-Hoeksema, 2000). Depressed people also show biases toward negative thinking in basic attention and memory processes (Harvey et al., 2004). They are more likely than nondepressed people to dwell on negative stimuli, such as sad faces, and to have trouble disengaging their attention from negative stimuli. When given a list of words to learn, they will selectively recall the negative words more than the positive words. These biases in attention to, and memory for, negative information could contribute to the development of the negative beliefs depressed people have about themselves, the world and the future, and their tendencies to ruminate (Harvey et al., 2004). Interpersonal perspectives Interpersonal theories of depression suggest that depressed people are often too dependent on the opinions and support of other people (Joiner, 2002). Their insecurity about their relationships and their self-image lead them to engage in excessive reassurance seeking – constantly looking for assurances from others that they are accepted and loved. They never quite believe the affirmations other people give, however, and anxiously keep going back for more. After a while, their family members and friends can become weary of this behavior and become frustrated or hostile. The insecure person picks up on these cues of annoyance and becomes even more worried about the relationship, and in turn engages in even more excessive reassurance seeking. Eventually, the person's social support may withdraw altogether, leading him or her to develop even more depression. In support of this theory, studies show that depressed people are more sensitive to rejection and more likely to engage in excessive reassurance seeking than people with other mental disorders, and in turn, community participants with these interpersonal liabilities are more likely to develop depression over time (Joiner, 2002). Depressed people also show a number of other interpersonal difficulties. Their social skills are sometimes lacking and they have more conflictual interpersonal relationships (Beach & O'Leary, 1993; Lewinsohn et al., 1980). Perhaps surprisingly, depressed people actively seek For more Cengage Learning textbooks, visit www.cengagebrain.co.uk negative feedback from others, apparently in an attempt to confirm their negative self-views (Swann, 1990). Psychosocial factors in bipolar disorder Although bipolar

disorder has strong genetic roots, psychosocial factors play a role in the course of the disorder. Stressful life events can trigger new episodes of bipolar disorder (Miklowitz & Johnson, 2006). In particular, having an unsupportive family where members are critical, hostile and exaggerated in emotional responses to each other increases the chances that a person with bipolar disorder will have a relapse of his or her symptoms (Hooley, 2007). In turn, psychotherapy designed to improve a toxic family atmosphere and teach the person with bipolar disorder how to reduce and cope with stress results in a lower risk of relapse of the disorder (Lam & Wong, 2005; Miklowitz & Craighead, 2007). INTERIM SUMMARY l The mood disorders are divided into depressive disorders, in which individuals experience only depressed mood, and bipolar disorder (or manicdepression), in which individuals experience both depression and mania. l Biological theories attribute mood disorders to genetic factors and to problems in regulation of the neurotransmitters serotonin and norepinephrine. l Cognitive theories attribute depression to pessimistic views of the self, the world, and the future and to maladaptive attributional styles. l Psychodynamic theories view depression as a reactivation of loss of parental affection in a person who is dependent on external approval and tends to turn anger inward. l Interpersonal theories view depression as the result of insecurities about relationships and maladaptive patterns of social interaction. CRITICAL THINKING QUESTIONS 1 There is evidence that depression is much more common among people born in recent generations (since the 1950s) than in people born in earlier generations (around the turn of the twentieth century). Can you generate some hypotheses for this historical trend? 2 Many famous artists and writers have suffered from depression or bipolar disorder, including composer Robert Schumann, writers Sylvia Plath and William Styron, and U.S. comedian Drew Carey. Could there be a link between mood disorders and creativity, and if so, what might be the nature of that link?

CUTTING EDGE RESEARCH Understanding Suicide The most disastrous consequence of depression is suicide. Not everyone who attempts or commits suicide is depressed, however, and suicidal thoughts and actions are alarmingly common. Internationally, an estimated 1 million people die by suicide each year, or one person every 40 seconds (WHO, 2005). Women attempt to commit suicide about three times more often than men do, but men succeed more often than women in killing themselves (see Figure A). The greater number of suicide attempts by women is probably related to the greater incidence of depression among women. The fact that men are more successful in their attempts is related to the choice of method. Women have tended to use less lethal means, such as cutting their wrists or overdosing on sleeping pills; men are more likely to use firearms or carbon monoxide fumes or to hang themselves (WHO, 2005). There are cross-national differences in suicide rates, with higher rates in Europe, the former Soviet Union, and Australia, and low rates in Latin American and South America (see Figure B; WHO, 2005). The suicide rates in the United States, Canada, and England fall between these two extremes. These differences may have to do with cultural and religious norms against suicide. Over 90 percent of people who commit suicide have probably been suffering from a diagnosable mental disorder, most commonly a mood disorder (Fortune & Hawton, 2005; Jacobson & Gould, 2008). In addition, drug abuse plays an important role in suicide. The lifetime risk for suicide among people who are dependent on alcohol is seven times greater than the lifetime risk among people not alcohol dependent (Joiner et al., 2005; see also Nock et al., 2008). When 5–14 15–24 25–34 35–44 45–54 55–64 65–74 75+ Age group Male Female 10 30 50 Rate per 100,000 Figure A Gender, Age, and Suicide. In many nations of the world, men are more likely to commit suicide than women, and the rates of suicide are highest among the elderly. Source: World Health Organization (2004).

Distribution of suicide rates per (1,000,000) by gender and age, 2000. Retrieved from http://www.who.int/mental_health/prevention/suicide/charts/en/

> 13 6.5–13 <6.5 no data Figure B Map of Suicide Rates. There are significant differences across countries in suicide rates. This map shows the rate per 100,000 people in different regions of the world. Source: World Health Organization (2004). Distribution of suicide rates per (1,000,000) by gender and age, 2000. Retrieved from http://www.who.int/mental_health/prevention/suicide/charts/en/ MOOD DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

558 CHAPTER 15 PSYCHOLOGICAL DISORDERS alcoholism co-occurs with depression, the risk of suicide is especially high (Waller, Lyons, & Constantini-Ferrando, 1999). Alcohol lowers people's inhibitions to engage in impulsive acts, even self-destructive acts like suicide attempts. Recent research suggests that suicide can be contagious, particularly among people who are already having psychological problems (Jacobson & Gould, 2008). For example, researchers in Taiwan interviewed 438 individuals suffering from depression shortly after massive media coverage of the suicide of a popular television star named M. J. Nee. They found that 38.8 percent of the depressed individuals reported that the media coverage had increased their own thoughts about suicide, and 5.5 percent said it had led them to make a suicide attempt (Cheng, Hawton, Chen et al., 2007). Individuals who had themselves made a suicide attempt in the month prior to the media coverage of the celebrity suicide were nearly 12 times more likely to report having made another suicide attempt in response to the media coverage than individuals who had not made a recent suicide attempt. When a well-known member of the society commits suicide, people who closely identify with that person may see suicide as more acceptable. Among the depressed individuals in the Taiwanese study just described, several said that SCHIZOPHRENIA Things that relate, the town of Antelope, Oregon, Jonestown, Charlie Manson, the Hillside Strangler, the Zodiac Killer, Watergate, King's trial in L.A., and many more. In the last 7 years alone, over 23 Starwars scientists committed suicide for no apparent reason. The AIDS coverup, the conference in South American in 87 had over 1,000 doctors claim that insects can transmit it. To be able to read one's thoughts and place thoughts in one's own mind without the person knowing it's being done. Realization is a reality of bioelectromagnetic control, which is thought transfer and emotional control, recording individual brainwave frequencies of thought, sensation and emotions. (quoted in Nolen-Hoeksema, 2007, pp. 385–386) This 'announcement' posted by an individual with schizophrenia suggests what many of the unusual symptoms people with this disorder experience, including beliefs that others are conspiring against them, that their thoughts are being controlled, and thoughts are being transmitted into their minds. People with schizophrenia have such difficulty in sorting out the real from the unreal and in responding to the everyday events of life that they often become immobilized. Schizophrenia occurs in all cultures, even those that are remote from the stresses of industrialized civilization, and appears to have plagued humanity for at least 200 years. The disorder affects about 1 percent of the population and occurs equally in men and women. Schizophrenia exacts heavy costs both For more Cengage Learning textbooks, visit www.cengagebrain.co.uk 'His case showed that suicide is not shameful' and 'He was a courageous

martyr for me to follow elegantly.' (Cheng et al., 2007, p. 72–73). When two or more suicides or attempted suicides are nonrandomly bunched in space or time, such as a series of suicide attempts in the same school or a series of completed suicides in response to the suicide of a celebrity, scientists refer to this as a suicide cluster (Joiner, 1999). Suicide clusters seem to occur primarily among adolescents (Jacobson & Gould, 2008). If you suspect that a friend or family member might be contemplating suicide, what should you do? For many of us, this is such a frightening situation that we may not want to deal with it. Or we may think that by asking people about their suicidal feelings, we may suggest something they haven't already thought of. Research shows, however, that it is important to talk directly with people who might be suicidal about their feelings and intentions. Often, they find it a relief that someone notices and is concerned. Then, it is important to get help – to encourage suicidal individuals to seek treatment, and even to help them get emergency care if they are thinking of hurting themselves imminently, by taking them to the emergency room of a hospital or calling a suicide crisis hotline. on the individual and on his or her family and community. People with schizophrenia must seek psychiatric and medical help frequently, and international studies show that up to 3 percent of a nation's health care budget can be attributed to the costs of treating schizophrenia (Knapp, Mangalore, & Simon, 2004). The disorder usually begins in late adolescence or early adulthood, just when an individual is beginning a career and starting a family. Unfortunately, schizophrenia is one of the most stigmatized disorders, so individuals with this disorder and their families often carry tremendous shame. Characteristics of schizophrenia Sometimes schizophrenia develops slowly as a gradual process of increasing seclusiveness and inappropriate behavior. Sometimes the onset is sudden, marked by intense confusion and emotional turmoil. Such acute cases are usually precipitated by a period of stress in individuals whose lives have tended toward isolation, preoccupation with self, and feelings of insecurity. Whether schizophrenia develops slowly or suddenly, the symptoms are many and varied. The primary characteristics of schizophrenia can be summarized under the following headings, although not every person diagnosed as having the disorder will exhibit all of these symptoms. Disturbances of thought and attention In schizophrenia, both the process of thinking and the content of thought may be disordered. The following excerpt from the writings of a person with schizophrenia

illustrates how difficult it is to understand schizophrenic thinking. If things turn by rotation of agriculture or levels in regards and timed to everything; I am referring to a previous document when I made some remarks that were facts also tested and there is another that concerns my daughter she has a lobed bottom right ear, her name being Mary Lou. Much of abstraction has been left unsaid and undone in these products milk syrup, and others, due to economics, differentials, subsidies, bankruptcy, tools, buildings, bonds, national stocks, foundation craps, weather, trades, government in levels of breakages and fuses in electronics too all formerly states not necessarily factuated. (Maher, 1966, p. 395) By themselves, the words and phrases make sense, but they are meaningless in relation to each other. The juxtaposition of unrelated words and phrases and the idiosyncratic word associations (sometimes called word salad) are characteristic of the writing and speech of people with schizophrenia. They reflect a loosening of associations in which the individual's ideas shift from one topic to another in ways that appear unrelated. Moreover, the train of thought often seems to be influenced by the sound of words rather than by their meaning. The following account by a woman with schizophrenia of her thoughts in response to her doctor's questions illustrates this tendency to form associations by rhyming words, referred to as clang associations: Doctor: How about the medication? Are you still taking the Haldol? [an

antipsychotic drug] Patient Thinks: Foul Wall. (She nods but does not reply.) Doctor: What about the vitamins? Patient Thinks: Seven sins. Has-beens. (She nods.) Doctor: I don't think you're taking all your meds. Patient Thinks: Pencil leads. (North, 1987, p. 261) The confused thought processes that are the hallmark of schizophrenia seem to stem from a general difficulty in focusing attention and filtering out irrelevant stimuli. Most of us are able to focus our attention selectively. From a mass of incoming sensory information, we are able to select the stimuli that are relevant to the task at hand and ignore the rest. A person who suffers from schizophrenia is receptive to many stimuli at the same time and has trouble making sense of the profusion of SCHIZOPHRENIA COLLECTION, RUPRECHT-KARLSPUNIVERSITAT HEIDELBERG KLINIKUM PRINZHORN Prinzhorn The German psychiatrist Hans has assembled an extensive collection of artwork by mental patients. This painting, by August Neter, illustrates the hallucinations and paranoid fantasies experienced by many schizophrenic patients. inputs, as the following statement by a schizophrenic patient illustrates: I can't concentrate. It's diversions of attention that trouble me. I am picking up different conversations. It's like being a transmitter. The sounds are coming through to me, but I feel my mind cannot cope with everything. It's difficult to concentrate on any one sound. (McGhie & Chapman, 1961, p. 104) A sense of being unable to control one's attention and focus one's thoughts is central to the experience of schizophrenia. In addition to disorganized thought processes, people with schizophrenia experience disturbances in the content of thought. Most individuals suffering from schizophrenia show a lack of insight. When asked what is wrong or why they are hospitalized, they seem to have no appreciation of their condition and little realization that their behavior is unusual. They are also subject to delusions, beliefs that most people would view as misinterpretations of reality. The most common delusions are beliefs that external forces are trying to control one's thoughts and actions. These delusions of influence include the belief that one's thoughts are being broadcast to the world so that others can hear them, that strange thoughts (not one's own) are being inserted into one's mind, or that feelings and actions are being imposed on one by some external force. Also frequent are beliefs that certain people or certain groups are threatening or plotting against one (delusions of persecution). Less common are beliefs that one is powerful and important (delusions of grandeur).

560 CHAPTER 15 PSYCHOLOGICAL DISORDERS The term paranoid is used to refer to beliefs that focus on persecution. Such a person may become suspicious of friends and relatives, fear being poisoned, or complain of being watched, followed, and talked about. In rare cases, a person who has a paranoid form of schizophrenia may lash out at those he or she thinks are trying to inflict harm. Most people with schizophrenia are not a danger to others, although their confusion may make them a danger to themselves. The specific content of delusions in schizophrenia may vary across cultures (Tateyama, Asai, Hashimoto, Bartels, & Kasper, 1998). For example, delusions of persecution often focus on persons of authority in the culture. Thus, Americans with persecutory delusions may fear that the Central Intelligence Agency is out to get them, whereas Afro Caribbeans may believe that people are trying to kill them with curses (Westermeyer, 1993). Among the Japanese, people with schizophrenia might have delusions of being slandered, whereas Western Europeans with schizophrenia are more likely to have religious delusions of having committed a sin. These differences in the content of delusions probably reflect differences in a culture's belief systems as well as structures of authority. Disturbances of perception People experiencing acute schizophrenic episodes often report that the world appears different (noises seem louder, colors more intense). Their own bodies may no longer appear the same (their hands may seem too large or too small, their legs overly extended, their eyes dislocated in the face).

Some people fail to recognize themselves in a mirror, or see their reflection as a triple image. The most dramatic disturbances of perception are hallucinations, sensory experiences in the absence of relevant or adequate external stimulation. Auditory hallucinations (usually voices telling one what to do or commenting on one's actions) are the most common. Visual hallucinations (such as seeing strange creatures or heavenly beings) are somewhat less frequent. Other sensory hallucinations (a bad odor emanating from one's body, the taste of poison in food, the feeling of being pricked by needles) occur infrequently. Hallucinations are often frightening, even terrifying, as the following example illustrates: At one point, I would look at my co-workers and their faces would become distorted. Their teeth looked like fangs ready to devour me. Most of the time I couldn't trust myself to look at anyone for fear of being swallowed. I had no respite from the illness. Even when I tried to sleep, the demons would keep me awake, and at times I would roam the house searching for them. I was being consumed on all sides whether I was awake or asleep. I felt I was being consumed by demons. (Long, 1996) Auditory hallucinations may have their origin in ordinary thought. We often carry on internal dialogues – for example, commenting on our actions or having an imaginary conversation with another person. We may even occasionally talk aloud to ourselves. The voices that people with schizophrenia hear, calling them names or telling them what to do, are similar to internal dialogues. But a person experiencing an auditory hallucination does not believe that the voices originate within the self or that they can be controlled. The inability to distinguish between external and internal, real and imagined, is central to the experience of schizophrenia. Disturbances of emotional expression People suffering from schizophrenia often exhibit unusual emotional responses. They may be withdrawn and unresponsive in situations that should make them sad or happy. For example, a man may show no emotional response when informed that his daughter has cancer. However, this blunting of emotional expression can conceal inner turmoil, and the person may erupt with angry outbursts. Sometimes individuals with schizophrenia express emotions that are inappropriately linked to the situation or to the thought being expressed, such as smiling while speaking of tragic events. Because our emotions are influenced by cognitive processes, it is not surprising that disorganized thoughts and perceptions are accompanied by changes in emotional responses. This point is illustrated in the following comments: Half the time I am talking about one thing and thinking about half a dozen other things at the same time. It must look queer to people when I laugh about something that has got nothing to do with what I am talking about, but they don't know what's going on inside and how much of it is running around in my head. You see I might be talking about something quite serious to you and other things come into my head at the same time that are funny and this makes me laugh. If I could only concentrate on one thing at the one time I wouldn't look half so silly. (McGhie & Chapman, 1961, p. 104) Motor symptoms and withdrawal from reality People with schizophrenia sometimes exhibit bizarre motor activity. They may grimace, adopt strange facial expressions, or gesture repeatedly using peculiar sequences of finger, hand, and arm movements. Some may become very agitated and move about in continual activity, as in a manic state. Some, at the other extreme, may become totally unresponsive and immobile, adopting an unusual posture and maintaining it for long periods of time. For example, a person may stand like a statue with one foot extended and one arm raised toward the ceiling, maintaining this state of catatonic immobility for hours. Such an individual, who appears to have completely withdrawn from reality, may be responding to inner thoughts and fantasies.

Decreased ability to function Besides the specific symptoms we have described, people with schizophrenia are impaired in their ability to carry out the daily routines of living. If the disorder occurs in adolescence, the individual shows a decreasing ability to cope with school and has limited social skills and few friends. Adults suffering from schizophrenia are often unsuccessful in obtaining or holding a job. Personal hygiene and grooming deteriorate, and the individual avoids the company of other people. Author Greg Bottoms describes his brother Michael's descent into schizophrenia: Michael's decline, both mentally and physically, was astonishingly fast. He had gone from being a decent student and an amazing athlete to failing everything in the space of four years; he had gone from being a black belt in karate – lithe, aggressive, handsome – to being a disheveled, Bible-toting one-man show in less than one year. The rapidity of his decline once he hit twenty – particularly the physical decline – caught us all off guard. His poor marks in school had nothing to do with aptitude, but rather with his shifting of focus. He had a mission in life and little time to pursue other things, even if people insisted these things – school, a job, friends – were important. His body softened dramatically, his hygiene could produce a gag reflex. Where he had once been inordinately handsome, he now had smears of blackheads across his nose, a double chin, greasy hair. . . . He started smoking three packs of Camels a day, sometimes rocked back and forth uncontrollably in the school smoking section during lunch, looking up through his long bangs at the other dopers to tell them that Jesus loved them. . . . He never slept – or if he did, it was maybe an hour or two at a time. . . . Sometimes he'd scream in the middle of the night. (Bottoms, 2000, pp. 63–64) The signs of schizophrenia are many and varied. Trying to make sense of the variety of symptoms is complicated by the fact that some may result directly from the disorder, whereas others may be a reaction to life in a mental hospital or to the effects of medication. Culture and the progression of schizophrenia Generally, schizophrenia is more chronic and debilitating than other psychological disorders. Between 50 and 80 percent of people who are hospitalized with one episode of schizophrenia are eventually rehospitalized for another episode at some time in their lives (Eaton et al., 1992). Not everyone with schizophrenia shows progressive deterioration in functioning, however. Between 20 and 30 percent of people treated for schizophrenia recover substantially from the illness For more Cengage Learning textbooks, visit www.cengagebrain.co.uk SCHIZOPHRENIA Developing countries Developed countries 60 Percent 30 10 In remission Continuous or episodic symptoms Impaired social functioning Figure 15.10 Cultural Differences in the Course of Scizophrenia. People with schizophrenia in developing countries show a more positive course of the disorder than people in developed countries Source: A. Jablensky (2000): Epidemiology of schizophrenia: the global burden of disease and disability, European Archives of Psychiatry and Clinical Neuroscience, Volume 250, Number 6 / December, 2000 within 10 to 20 years of its onset (Wiersma, Nienhuis, Sloof, & Giel, 1998). Culture seems to play a strong role in the course of schizophrenia. People who have schizophrenia in developing countries, such as India, Nigeria, and Colombia, are less likely to remain incapacitated by the disorder for the long term than people who have schizophrenia in developed countries such as the Great Britain, Denmark, or the United States (see Figure 15.10; Jablensky, 2000). Why might this be? Differences in how cultures treat their individuals with schizophrenia probably play a strong role. In developing countries, people with schizophrenia are more likely cared for at home by a broad network of family members who share responsibility for the individual (Anders, 2003). In contrast, in developed countries, it is less likely that the person with schizophrenia lives with family or that his or her immediate family has other family members nearby who share in the care. Caring for a family member with schizophrenia can be a huge burden. When this burden is shouldered by only a

few people, there can be tremendous conflict in the family, which may exacerbate the symptoms of the person with schizophrenia. Understanding schizophrenia Schizophrenia probably has strong biological roots, but environmental stress may push people who are vulnerable to schizophrenia into more severe forms of the disorder or new episodes of psychosis.

562 CHAPTER 15 PSYCHOLOGICAL DISORDERS The biological perspective Family studies show that there is a hereditary predisposition for schizophrenia. Relatives of people with schizophrenia are more likely to develop the disorder than people from families that are free of schizophrenia (Gottesman & Reilly, 2003). Figure 15.11 shows the lifetime risk of developing schizophrenia as a function of how closely an individual is genetically

related to a person diagnosed with schizophrenia. Note that an identical twin of a schizophrenic is three times more likely than a fraternal twin to develop schizophrenia and 46 times more likely than an unrelated person to develop the disorder. However, fewer than half of identical twins of people with schizophrenia develop schizophrenia themselves, even though they share the same genes. How do the genetic abnormalities that predispose an individual to schizophrenia affect the brain? Current research

focuses on two areas: brain structure and biochemistry. Two types of structural deficits are consistently found in the brains of people with schizophrenia. First, the prefrontal cortex is smaller and shows less activity in some people with schizophrenia than in people without the disorder (Andreasen, 2001; Barch, 2005; see Figure 15.12). The prefrontal cortex is the largest region of the brain in Genetic relatedness Relationship 100% Identical twin

Born of schizophrenic parents 50% Fraternal twin 50% Having one schizophrenic parent 50% Sibling 25% Nephew or niece 0% Spouse 0% Unrelated person 10 30 50 Percent risk Figure 15.11 Genetic Relationships and Schizophrenia. The lifetime risk of developing schizophrenia is largely a function of how closely an individual is genetically related to a schizophrenic person and not a function of how much their environment is shared. In the case of an individual with two

schizophrenic parents, genetic relatedness cannot be expressed in terms of percentages, but the regression of the individual's 'genetic value' on that of the parents is 100%, the same as it is for identical twins. (Schizophrenia: The Epigenetic Puzzle, by I. I. Gottesman & J. Shields. Copyright © 1992 Cambridge University Press. For more Cengage Learning textbooks, visit www.cengagebrain.co.uk LABORATORY OF PSYCHOLOGY AND PSYCHOPATHOLOGY, NATIONAL INSTITUTE OF MENTAL HEALTH The odds of all four of a set of identical quadruplets being diagnosed with schizophrenia are 1 in 2 billion – yet these quadruplets, the Genain sisters, all suffer from schizophrenia and have been hospitalized at various times since high school. human beings, nearly 30 percent of the total cortex, and it has connections to all the other cortical regions, as well as to the limbic system, which is involved in emotion and cognition, and the basal ganglia, which is involved in motor movement. The prefrontal cortex plays important roles in language, emotional expression, planning and producing new ideas, and mediating social interactions. Thus, it seems logical that people whose prefrontal cortex is unusually small or inactive would show a wide range of deficits in cognition, emotion, and social interaction, as people with schizophrenia do. Second, people with schizophrenia have enlarged ventricles and fluid-filled spaces in the brain (see Figure 15.13; Eyler Zorrilla et al., 1997; Galderisi et al., 2000). The presence of enlarged ventricles suggests atrophy or deterioration in other brain tissue. The specific areas of the brain that have deteriorated, resulting in ventricular enlargement, could lead to different manifestations of schizophrenia. Although neurochemical theories of mood disorders center on norepinephrine and serotonin, the culprit in schizophrenia is believed to be dopamine. Early dopamine theories of schizophrenia held that the disorder was the result of the presence of too much dopamine in key areas of the brain. This view is now considered too simple. The most recent theories suggest that there is a complicated imbalance in levels of dopamine in different areas of the brain (Conklin & Iacono, 2002). First, there may be excess dopamine activity in the

mesolimbic system, a subcortical part of the brain involved in cognition and emotion, which leads to hallucinations, delusions, disordered thought. On the other hand, there may be unusually low dopamine activity in the prefrontal area of the brain, which is involved in attention, motivation, and organization of behavior (see Figure 15.14; Taber, Lewis, & Hurley, 2001). Low dopamine activity in the prefrontal area may lead to lack of motivation, inability to care for oneself, inappropriate emotional expression. As we mentioned, these abnormalities in brain structure and neurochemical functioning could be due to genetics, but they also could be the result of insults to the brain of a fetus or young child. Studies have found that people who have schizophrenia are more likely to have a history of birth complications, perinatal brain damage, infections in the central nervous system (such as meningitis) in infancy, and maternal pregnancy complications or influenza in pregnancy (Cannon & Keller, 2006). Each of these might cause permanent damage to the central nervous system of the fetus or young child, perhaps contributing to risk for schizophrenia. The social and psychological perspective Psychosocial factors appear to play an important role in determining the eventual severity of the disorder in people with a biological predisposition toward schizophrenia, as well as in triggering new episodes of psychosis. The type of stress that has received the most attention in recent studies is family-related stress. Members of families that are high in expressed emotion are overinvolved with one another, overprotective of the disturbed family member, and, at the same time, critical, hostile, and resentful toward the disturbed member. People with schizophrenia whose families are high in expressed emotion are three to four times more likely to suffer a new psychotic episode than those whose families are low in expressed emotion (Hooley, 2007). Being in a family with high levels of expressed emotion may create

stresses that trigger new Ventricles Ventricles Figure 15.13 Brain Functioning in Schizophrenia. The MRI on the left shows evidence of ventricular enlargement in the brain of a person with schizophrenia compared with that of a person without schizophrenia in the image on the right. (Courtesy of Silvana Galderisi, from Galderisi, Vita, Rossi, Stratta, Leonardi and Invernizzi, (2000) 'Qualitative MRI findings in patients with schizophrenia', Psychiatry Research: Neuroimaging Section 98:117–126, reprinted by pemission.) Figure 15.12 A Normal Brain Versus a Schizophrenic Brain. This PET scan shows the metabolic differences between the prefrontal cortex of an individual with schizophrenia and the same areas in the brain of a normal individual. © PHOTO RESEARCHERS SCHIZOPHRENIA For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

episodes of psychosis by overwhelming the schizophrenic person's ability to cope. The link between expressed emotion and relapse in schizophrenia may help to explain the cross-cultural differences in the prognosis of this disorder. One study found that families of people with schizophrenia in Mexico and India scored lower on measures of expressed emotions than did families of people with schizophrenia in Europe and the United States (see Figure 15.15; Karno & Jenkins, 1993). Critics of the research on expressed emotion argue that the hostility and intrusiveness observed in some families of people with schizophrenia might be the result of the symptoms exhibited by the disturbed member, rather than a factor contributing to the disorder (Parker, Johnston, & Hayward, 1988). Although families are often forgiving of positive symptoms like hallucinations, viewing them as uncontrollable, they can be unforgiving of the negative symptoms like lack of motivation (Hooley, 2007). People with these symptoms may elicit more negative expressed emotion and may be especially prone to relapse. Another alternative explanation for the link between expressed emotion and relapse comes from evidence that family members who are especially high in expressed emotion are themselves more likely to exhibit some form of psychopathology (Goldstein, Talovic, Nuechterlein, & Fogelson, 1992). In such families, people with schizophrenia may have high rates of relapse because they have a greater genetic predisposition toward psychopathology, as evidenced by the presence of psychopathology in their families, rather than because their families are high in expressed emotion. Perhaps the best evidence that expressed emotion actually influences relapse is that treatments that reduce expressed emotion tend to reduce the relapse rate in family members with schizophrenia. 80 40 0 Percent of families with high expressed emotion India 23% Mexican 41% British 48% European American 67% Figure 15.15 Cultural Differences in the Prevalence of Expressed Emotion in Families of People with Schizophrenia. Families of people with schizophrenia from developing countries tend to show lower levels of expressed emotion than do families of schizophrenics from developed countries. This may be one reason that people with schizophrenia from developing countries have fewer relapses than do those from developed countries. (M. Karno & J. H. Jenkins (1993). 'Cross-Cultural Issues in the Course and Treatment of Schizophrenia'. Psychiatric Clinics of North America, 16, 339–350. Reprinted by permission of W. B. Saunders Co.) Figure 15.14 Dopamine Axons in Prefrontal Cortex and Schizophrenia. The photomicrograph on the left is from a nonschizophrenic person and shows a much denser network of dopamine axons in the prefrontal cortex than the photomicrograph on the right, which is from a person with schizophrenia (bar ¼ 200 microns). Courtesy of David A. Lewis, MD, University of Pittsburgh School of Medicine. CHAPTER 15 PSYCHOLOGICAL DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

INTERIM SUMMARY l Schizophrenia is characterized by disturbances in thought, including disorganized thought processes, delusions, and lack of insight. l Other symptoms include

perceptual disturbances (such as hallucinations), inappropriate emotional expression, bizarre motor activity, withdrawal, and impaired functioning. l Schizophrenia clearly is transmitted genetically. l People with schizophrenia also have problems in dopamine regulation. l Two types of brain abnormalities are consistently seen in schizophrenia: The prefrontal cortex is smaller and less active, and the ventricles are enlarged. l Difficult environments may worsen the disorder and contribute to relapses. CRITICAL THINKING QUESTIONS 1 What might be the mechanisms by which living in a family with high expressed emotion contributes to relapse in people with schizophrenia? 2 There is evidence that people with schizophrenia are more likely to have been born in the winter or spring of the year than in the summer or fall. Can you generate some hypotheses about why this might be so? PERSONALITY DISORDERS Personality disorders are long-standing patterns of maladaptive behavior. In Chapter 13, we described personality traits as enduring ways of perceiving or relating to the environment and thinking about oneself. When personality traits become so inflexible and maladaptive that they significantly impair the individual's ability to function, they are referred to as personality disorders. People with personality disorders experience themselves and the world in ways that are highly distressing to them and/or impair their ability to function in daily life. These experiences begin in childhood or adolescence and persist over time and across situations, affecting most areas of the person's life. The particular emotions, thoughts, and behaviors that an individual experiences vary according to the specific disorder. ICD-10 lists several personality disorders. The characteristics of these disorders tend to overlap, making it For more Cengage Learning textbooks, visit www.cengagebrain.co.uk PERSONALITY DISORDERS difficult to agree on how to classify some individuals. Moreover, it is difficult to say when a person's behavior is simply different from other people's behaviors and when the behavior is so severe that it warrants a diagnosis. The personality disorder that has been studied the most and is the most reliably diagnosed is the antisocial personality disorder (technically labeled dissocial personality disorder in the ICD-10, but most commonly referred to as antisocial personality disorder, and sometimes referred to as psychopathy or sociopathy). We discuss it in this section, along with borderline personality disorder, a controversial personality disorder that has received much attention in recent years. Antisocial personality disorder People who have antisocial personality disorder have little sense of responsibility, morality, or concern for others. Their behavior is determined almost entirely by their own needs. In other words, they lack a conscience. Whereas the average person realizes at an early age that some restrictions are placed on behavior and that pleasures must sometimes be postponed in consideration of the needs of others, individuals who have antisocial personalities seldom consider any desires except their own. They ª PICTORIAL PRESS LTD / ALAMY Anthony Hopkins played a criminal with extreme antisocial behavior in Silence of the Lambs.

566 CHAPTER 15 PSYCHOLOGICAL DISORDERS behave impulsively, seek immediate gratification of their needs, and cannot tolerate frustration. Extreme versions of this disorder were depicted by Woody Harrelson in the movie Natural Born Killers and by Anthony Hopkins in The Silence of the Lambs. Antisocial behavior results from a number of causes, including membership in a delinquent gang or a criminal subculture, the need for attention and status, loss of contact with reality, and inability to control impulses. However, most juvenile delinquents and adult criminals show some concern for others (for example, family or gang members) and adhere to some code of moral conduct (never betray a friend). In contrast, people with antisocial personalities have little feeling for anyone except themselves and seem to experience little guilt or remorse, regardless of how much suffering their behavior may cause. Other characteristics of the antisocial personality include

a great facility for lying, a need for thrills and excitement with little concern for possible injury, and inability to alter behavior as a consequence of punishment. Such individuals are sometimes attractive, intelligent, charming people who are adept at manipulating others – in other words, good con artists. Their façade of competence and sincerity wins them promising jobs, but they have little staying power. Their restlessness and impulsiveness soon lead them into an escapade that reveals their true nature; they accumulate debts, desert their families, squander company money, or commit crimes. When they are caught, their declarations of repentance are so convincing that they often escape punishment and are given another chance. But antisocial personalities seldom live up to these declarations; what they say has little relation to what they feel or do. Deceitfulness is one of the defining characteristics of antisocial personality (Kraus & Reynolds, 2001). Fortunately, the full syndrome of antisocial personality disorder is relatively rare. It is much more common in men than in women, with about 3 percent of men and 1 percent of women having this disorder at some time in their lives (Kraus & Reynolds, 2001). Understanding antisocial personality disorder What factors contribute to the development of an antisocial personality? Current research focuses on biological determinants, the quality of the parent–child relationship, and ways of thinking that promote antisocial behaviors. Biological factors Genetic factors appear to play a role in the development of antisocial personality. Both twin and adoption studies show that antisocial personality is heritable, perhaps particularly antisocial tendencies that begin early in childhood (Kendler, Jacobson, Myer, & Eaves, 2008). One of the cardinal features of antisocial personality is impulsivity (Rutter, 1997). Many animal studies and some human studies suggest that impulsive and aggressive behaviors are linked to low levels of the neurotransmitter serotonin (Krakowski, 2003; Mann et al., 2001). Low serotonin levels may contribute to impulsivity in antisocial personality disorder. People with antisocial personalities also show deficits in the ability to sustain concentration, in abstract reasoning and concept formation, in formulating and implementing goals, in self-monitoring and self-awareness, and in shifting from maladaptive patterns of behavior to more adaptive ones (Henry & Moffitt, 1997). Collectively, these are known as executive functions, and their control resides largely in the temporal and frontal lobes of the brain. In turn, some studies have found differences between antisocial adults (usually prison inmates) and the general population in the structure or functioning of these areas of the brain (Morgan & Lilienfeld, 2000). These brain anomalies could be the result of medical illnesses and exposure to toxins during infancy and childhood, which are both more common in antisocial people than in controls, or to genetic abnormalities. Whatever their causes, deficits in executive functions could contribute to poor impulse control and difficulty in anticipating the consequences of one’s actions. Many studies have argued that people with antisocial personality disorder have low levels of arousability, measured by relatively low resting heart rates and low skin conductance activity (Herpertz et al., 2001; Raine, 1997). Low levels of arousal may indicate low levels of fear in response to threatening situations. Fearlesness can be put to good use – for instance, British paratroopers and bomb disposal experts show low levels of arousal (McMillan & Rachman, 1987; O’Connor, Hallam, & Rachman, 1985). However, fearlessness may also allow some people to engage in antisocial and violent behaviors, such as fighting or robbery. In addition, children with low arousal levels may not fear punishment, and thus may not be deterred from antisocial behavior by the threat of punishment. Chronically low arousal may also be an uncomfortable state that people with antisocial personality disorder relieve by seeking stimulation (Eysenck, 1994). Again, if an individual seeks stimulation through prosocial or neutral acts, such as skydiving, stimulation seeking may not lead to antisocial behavior. But some individuals may engage in dangerous or

impulsive acts to seek stimulation, and they may be more prone to develop antisocial personalities. Social factors Even children who have a biological predisposition for antisocial behavior appear unlikely to develop antisocial personality disorder unless they are also exposed to environments that promote antisocial behavior (Dishion & Patterson, 1997; Dodge & Pettit, 2003). The parents of children with antisocial personalities often appear to be simultaneously neglectful and hostile toward their

ªISTOCKPHOTO.COM/JENNIFER STEELE When parents use physical punishment, children are more likely to develop violent tendencies. children. The children are frequently unsupervised for long periods. The parents often are not involved in the children's everyday lives, not knowing where they are or who their friends are. But when these parents do interact with their children, the interactions are often characterized by hostility, physical violence, and ridicule (Dishion & Patterson, 1997). This description does not fit all parents of such children, but parental noninvolvement and hostility are good predictors of children's vulnerability to antisocial personality disorder. The biological and family factors that contribute to antisocial personality often coincide. Children who behave in antisocial ways often suffer from neuropsychological problems that are the result of maternal drug use, poor prenatal nutrition, prenatal and postnatal exposure to toxic agents, child abuse, birth complications, and low birth weight (Moffitt, 1993). Children with these neuropsychological problems are more irritable, impulsive, awkward, overreactive, and inattentive, and they learn more slowly than their peers. This makes them difficult to care for, and they are therefore at increased risk for maltreatment and neglect. In turn, the parents of these children are more likely to be teenagers or to have psychological problems of their own that contribute to ineffective, harsh, or inconsistent parenting. Thus, for For more Cengage Learning textbooks, visit www.cengagebrain.co.uk PERSONALITY DISORDERS these children a biological predisposition to disruptive, antisocial behaviors may be combined with a style of parenting that contributes to these behaviors. In a study of 536 boys, Moffitt (1990) found that those who had both neuropsychological deficits and adverse home environments scored four times higher on an aggression scale than those with neither neuropsychological deficits nor adverse home environments. Personality factors Children with antisocial personalities tend to process information about social interactions in ways that promote aggressive reactions to these interactions (Crick & Dodge, 1994). They assume that other children will be aggressive toward them, and they interpret other children's actions in line with these assumptions rather than using cues from the specific situations they actually face. In addition, they tend to believe that any negative action by a peer – such as taking their favorite pencil – is intentional rather than accidental. When deciding what action to take in response to a perceived provocation by a peer, children with antisocial personalities tend to think of a narrow range of responses, usually including aggression. When pressed to consider responses other than aggression, they make ineffective or vague responses and often consider responses other than aggression to be useless or unattractive. Children who think about their social interactions in this way are likely to engage in aggressive behaviors toward others and may therefore suffer retaliation. Other children will hit them, parents and teachers will punish them, and they will be perceived more negatively by others. These actions may feed their assumptions that the world is against them, causing them to misinterpret future actions by others. In this way, a cycle of interactions can be established that maintains and encourages aggressive, antisocial behaviors. Borderline personality disorder Borderline personality disorder is a lifelong disorder characterized by extreme variability in mood, relationships, and self-perceptions. It has been the focus of considerable attention in the popular press and in clinical and research writings

in psychology in the past couple of decades. Instability is a key feature of borderline personality disorder. The mood of individuals with this disorder is unstable, with bouts of severe depression, anxiety, or anger seeming to arise frequently, often without good reason. The self-concept is unstable, with periods of extreme self-doubt and grandiose self-importance. Interpersonal relationships are extremely unstable, and the person can switch from idealizing other people to despising them without provocation. People with borderline personality disorder often feel desperately empty and will initially cling to a new acquaintance or therapist in the hope that he or she will fill the tremendous void

568 CHAPTER 15 PSYCHOLOGICAL DISORDERS they feel in themselves. At the same time, they may misinterpret other people's innocent actions as signs of abandonment or rejection. For example, if a therapist has to cancel an appointment because she is ill, a person with borderline personality disorder might interpret this as a rejection and become extremely depressed or angry. Along with instability of mood, self-concept, and interpersonal relationships comes a tendency toward impulsive self-damaging behaviors, including self-mutilation and suicidal behavior. Self-mutilation often takes the form of burning or cutting. Finally, people with borderline personality disorder are prone to transient episodes in which they feel unreal, lose track of time, and may even forget who they are. In the following passage, a clinician describes a woman who was diagnosed with borderline personality disorder (Linehan, Cochran, & Kehrer, 2001, pp. 502–504). At the initial meeting, Cindy was a 30-year-old, white, married woman with no children who was living in a middle-class suburban area with her husband. She had a college education and had successfully completed almost 2 years of medical school. Cindy was referred by her psychiatrist of 11 2 years, who was no longer willing to provide more than pharmacotherapy following a recent hospitalization for a near-lethal suicide attempt. In the 2 years prior to referral, Cindy had been hospitalized at least 10 times (one lasting 6 months) for psychiatric treatment of suicidal ideation; had engaged in numerous instances of parasuicidal behavior, including at least 10 instances of drinking Clorox bleach, multiple deep cuts, and burns; and had had three medically severe or nearly lethal suicide attempts, including cutting an artery in her neck. Until age 27 Cindy was able to function well in work and school settings, and her marriage was reasonably satisfactory to both partners, although the husband complained of Cindy's excessive anger. When Cindy was in the second year of medical school, a classmate she knew only slightly committed suicide. Cindy stated that when she heard about the suicide, she immediately decided to kill herself also, but had very little insight into what about the situation actually elicited the inclination to kill herself. Within weeks she left medical school and became severely depressed and actively suicidal. Although Cindy presented herself as a person with few psychological problems before the classmate's suicide, further questioning revealed a history of severe anorexia nervosa, bulimia nervosa, and alcohol and prescription medication abuse, originating at the age of 14 years. Over the course of therapy, a consistent pattern associated with self-harm became apparent. The chain of events would often begin with an interpersonal encounter (almost always with her husband), which culminated in her feeling threatened, criticized, or unloved. These feelings would often be followed by urges either to self-mutilate or to kill herself, depending somewhat on her levels of hopelessness, anger, and sadness. Decisions to self-mutilate and/or to attempt suicide were often accompanied by the thought 'I'll show you.' At other times, hopelessness and a desire to end the pain permanently seemed predominant. Following the conscious decision to self-mutilate or attempt suicide, Cindy would then immediately dissociate and at some later point cut or burn herself, usually while in a state of 'automatic pilot'.

Consequently, Cindy often had difficulty remembering specifics of the actual acts. At one point, Cindy burned her leg so badly (and then injected it with dirt to convince the doctor that he should give her more attention) that reconstructive surgery was required. People with borderline personality disorder also tend to receive diagnoses of one of the acute disorders, including substance abuse, depression, generalized anxiety disorder, simple phobias, agoraphobia, post-traumatic stress disorder, and panic disorder (Kraus & Reynolds, 2001). Longitudinal studies of people with this disorder indicate that about 10 percent die by suicide, and perhaps 75 percent have attempted suicide (Linehan et al., 2001). The greatest risk of suicide appears to be in the first year or two after receiving a diagnosis of borderline personality disorder. This may be due to the fact that a person is often not diagnosed with this disorder until a crisis brings him or her into therapy. About 1 to 2 percent of the population will develop borderline personality disorder at some time in their lives (Weissman, 1993). The disorder is diagnosed much more often in women than in men. People with this disorder tend to have stormy marital relationships, more job difficulties, and a higher rate of physical disability than average. Understanding borderline personality disorder Psychoanalytic theorists suggest that individuals with borderline personalities have very poorly developed views of self and others, stemming from poor early relationships with caregivers (Kernberg, 1979). The caregivers of people with borderline personality disorder may have encouraged excessive dependence from them as children, punishing the children's attempts at developing an autonomous selfconcept. As a result, people with borderline personality disorder never learn to fully differentiate between their views of self and others. This makes them extremely sensitive to others' opinions of them and to the possibility of being abandoned. When others are perceived as rejecting them, they reject themselves and may engage in self-punishment or self-mutilation. Psychoanalytic theories also argue that individuals with borderline personalities have never been able to integrate the positive and negative qualities of either their self-concept or their concept of others, because their early caregivers were comforting and rewarding when they

remained dependent and compliant toward them but hostile and rejecting when they tried to separate from them. People with borderline personalities therefore tend to see themselves and others as either 'all good' or 'all bad' and vacillate between these two views. This process is referred to as splitting. The changeability of borderline individuals' emotions and interpersonal relationships is caused by splitting – their emotions and their perspectives on their relationships reflect their vacillation between the 'all good' and the 'all bad' self or other. Empirical studies have found that people with borderline personality disorder are more likely than people without the disorder to report childhoods marked by instability, abuse, neglect, and parental psychopathology (Helgeland & Torgersen, 2004). Of course, this is true of the childhoods of people with many different types of psychopathology and does not directly address the psychoanalytic theory of the development of this disorder. One influential theorist, Marcia Linehan (Linehan et al., 2001), argues that people with borderline personality disorder have fundamental deficits in the ability to regulate emotions. Extreme emotional reactions to situations lead to impulsive actions. In addition, Linehan argues that people with borderline personality disorder have histories of significant others discounting and criticizing their emotional experiences. Such a history makes it even harder for them to learn appropriate emotion-regulation skills and to understand and accept their emotional reactions to events. People with this disorder come to rely on others to help them cope with difficult situations but do not have enough self-confidence to ask for help from others in mature ways. They become manipulative and indirect in trying to gain support from others. INTERIM SUMMARY l Personality disorders are lifelong patterns of maladaptive behavior involving difficulties

in coping with stress or solving problems. l Individuals with antisocial personality disorder are impulsive, show little guilt, are concerned only with their own needs, and are frequently in trouble with the law. l Antisocial personality disorder may have genetic and biological roots. Neglectful and hostile parenting also appear to contribute to the disorder. l People with borderline personality disorder show instability in mood, self-concept, and interpersonal relationships. l Psychodynamic theories suggest that the caregivers of people with this disorder required their children to be highly dependent and alternated between extreme expressions of love and hostility. Other theorists argue that people with borderline personality disorder have extreme difficulties in regulating their emotions For more Cengage Learning textbooks, visit www.cengagebrain.co.uk PERVASIVE DEVELOPMENTAL DISORDERS CRITICAL THINKING QUESTIONS 1 Do personality disorders seem to be just the extremes of normal personality traits or distinct entities that are qualitatively different from normal personality traits? 2 What similarities do you see between antisocial personality disorder and borderline personality disorder? PERVASIVE DEVELOPMENTAL DISORDERS The pervasive developmental disorders (PDDs) are a set of disorders first beginning in childhood and characterized by severe and lasting impairment in several areas of development, including social interactions, communication with others, everyday behaviors, interests, and activities. The pervasive developmental disorder that is probably most familiar to you is autism – a disorder in which children show deficits in social interaction, communication, activities, and interests. Many children with pervasive developmental disorders also show at least mild levels of intellectual disability, although some have normal or superior intelligence or special skills. We first detail the characteristics of autism, then describe how the other pervasive developmental disorders relate to autism. Diagnosis of autism Autism involves three types of deficits. The first is deficits in social interaction. Even as infants, children with autism seem not to connect with other people, including their parents. They may not smile and coo in response to their caregivers or initiate play with their caregivers, the way most young infants do. They may not want to cuddle with their parents, even when they are frightened. Whereas most infants love to gaze upon their caregivers as the caregivers gaze adoringly at them, autistic infants may hardly ever make eye-to-eye contact. When they are a bit older, children with autism may not be interested in playing with other children, preferring to remain in solitary play. They also do not seem to react to other people’s emotions. Richard is a child with autism (adapted from Spitzer et al., 1994, pp. 336–337): Richard, age 31 2, appeared to be self-sufficient and aloof from others. He did not greet his mother in the mornings or his father when he returned from work, though, if left with a baby-sitter, he tended to scream much of the time. He had no interest in other children

570 CHAPTER 15 PSYCHOLOGICAL DISORDERS and ignored his younger brother. His babbling had no conversational intonation. At age 3 he could understand simple practical instructions. His speech consisted of echoing some words and phrases he had heard in the past, with the original speaker’s accent and intonation; he could use one or two such phrases to indicate his simple needs. For example, if he said, ‘Do you want a drink?’ he meant he was thirsty. He did not communicate by facial expression or use gesture or mime, except for pulling someone along with him and placing his or her hand on an object he wanted. He was fascinated by bright lights and spinning objects and would stare at them while laughing, flapping his hands, and dancing on tiptoe. He also displayed the same movements while listening to music, which he liked from infancy. He was intensely attached to a miniature car, which he held in his hand, day and night, but he never played imaginatively with this or any other toy. He could assemble jigsaw puzzles rapidly (with one hand because of the car held in the other), whether the picture side was exposed or hidden. From

age 2 he had collected kitchen utensils and arranged them in repetitive patterns all over the floors of the house. These pursuits, together with occasional periods of aimless running around, constituted his whole repertoire of spontaneous activities. The major management problem was Richard's intense resistance to any attempt to change or extend his interests. Removing his toy car, disturbing his puzzles or patterns, even retrieving, for example, an egg whisk or a spoon for its legitimate use in cooking, or trying to make him look at a picture book precipitated temper tantrums that could last an hour or more, with screaming, kicking, and the biting of himself or others. These tantrums could be cut short by restoring the status quo. Otherwise, playing his favorite music or going for a long car ride were sometimes effective. His parents had wondered if Richard might be deaf, but his love of music, his accurate echoing, and his sensitivity to some very soft sounds, such as those made by unwrapping chocolate in the next room, convinced them that this was not the cause of his abnormal behavior. Psychological testing gave Richard a mental age of 3 years in non–language-dependent skills (such as assembling objects) but only 18 months in language comprehension. It was formerly thought that children with autism are preoccupied with internal thoughts and fantasies, much as people with schizophrenia might be preoccupied with hallucinations and delusions. Indeed, autism in children formerly was considered a precursor to adult schizophrenia. Studies over the past few decades have shown, For more Cengage Learning textbooks, visit www.cengagebrain.co.uk ª PHOTOTAKE INC. / ALAMY Children with autism may show no interest in playing with others. however, that these children do not develop the classic symptoms of schizophrenia as adults (for example, they show no evidence of hallucinations and delusions) and that adults with schizophrenia do not have histories of full autistic disorder as young children. In addition, autism and schizophrenia do not co-occur in families at a high rate, suggesting that they have different genetic causes. The second group of deficits in autism has to do with communication. Children with autism show a number of difficulties in communication and speech, as did Richard. Rather than generating his own words, he simply echoed what he had just heard, in a phenomenon called echolalia. He reversed pronouns, using you when he meant I. When he did try to generate his own words or sentences, he did not modulate his voice for expressiveness, sounding almost like a voice-generating machine. The third group of deficits concerns the type of activities and interests of children with autism. Rather than engaging in symbolic play with toys, they are preoccupied with one part of a toy or an object, as Richard was preoccupied with his miniature car. They may engage in bizarre, repetitive behaviors with toys. For example, rather than using two dolls to play 'dollies have tea', child with autism might take the arm off one doll and simply pass it back and forth between her two hands. Routines

ª PHOTOS 12 / ALAMY Dustin Hoffman (right) played a man with autism in Rain Man. and rituals are often extremely important to children with autism: When any aspect of the daily routine is changed – for example, if a child's mother stops at the bank on the way to school – they may fly into a rage. Some children perform stereotyped and repetitive behaviors using some parts of their own bodies, such as incessantly flapping their hands or banging their heads against walls. These behaviors are sometimes referred to as self-stimulatory behaviors, under the assumption that these children engage in these behaviors for self-stimulation. It is not clear, however, that this is their true purpose. Children with autism often do poorly on measures of intellectual ability, such as IQ tests and 50 to 70 percent have moderate to severe intellectual impairments (Sigman, Spence, & Wang, 2006). The deficits of some children with autism, however, are confined to skills that require language and perspective-taking skills, and they may score in the average range on subtests that do not require language skills. Much has been made in the popular press about the special talents

that some children with autism have, such as the ability to play music without having been taught or to draw extremely well, or exceptional memory and mathematical calculation For more Cengage Learning textbooks, visit www.cengagebrain.co.uk PERVASIVE DEVELOPMENTAL DISORDERS abilities, as was depicted in the movie Rain Man. These persons are sometimes referred to as savants. These cases are quite rare, however (Bolte & Poustka, 2004). By definition, the symptoms of autism have their onset before the age of 3. However, children with autism are not simply delayed in their development of important skills. When they do develop language or social interaction patterns, these patterns are highly unusual. It is important to note, though, that there is a wide variation in the severity and outcome of this disorder. Howlin, Goode, Hutton, and Rutter (2004) followed 68 individuals who had been diagnosed with autism as children and who had a performance IQ of at least 50. As adults, onefifth of them had been able to obtain some sort of academic degree, five had gone on to college, and two had obtained post-graduate degrees. Almost a third were employed and about a quarter had close friendships. The majority, however, remained very dependent on their parents or required some form of residential care. Fiftyeight percent had overall outcomes that were rated as ‘poor’ or ‘very poor’. They were unable to live alone or hold a job, and had persistent problems in communication and social interactions. By far, the best predictor of the outcome of autism is a child’s IQ and amount of language development before the age of 6 (Howlin et al., 2004; Nordin & Gillberg, 1998). Children who have IQs above 50 and communicative speech before age 6 have a much better prognosis than do those with IQs below 50 and no communicative speech before age 6. In the study by Howlin and colleagues (2004), people with an IQ of 70 or above were especially likely to achieve a ‘good’ or ‘very good’ outcome. A review of epidemiological studies estimated that the prevalence of autism is about 5 per 10,000 children, and the prevalence of all forms of pervasive developmental disorder is 14 per 10,000 children (Fombonne, 1999). Boys outnumber girls about three to one. Asperger’s syndrome and other pervasive developmental disorders Other pervasive developmental disorders include Asperger’s syndrome. Rett’s disorder and childhood disintegrative disorder. In both Rett’s disorder and childhood disintegrative disorder, children appear to develop normally for a while and then show apparently permanent loss of basic skills in social interactions, language, and/or movement. Asperger’s syndrome is characterized by deficits in social interactions and in activities and interests that are similar to those in autism, but differs from autism in that there are no significant delays or deviance in language, and in the first three years of life, children show normal

SEEING BOTH SIDES IS ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADHD) OVERDIAGNOSED? ADHD is overdiagnosed Caryn L. Carlson, The University of Texas at Austin The growing public attention to attention-deficit hyperactivity disorder (ADHD) in recent years has increased the detection of legitimate cases and led to much-needed research. We must be cautious, however, that we do not allow the diagnostic pendulum to swing too far, since finding answers about ADHD depends on the rigor and integrity of our classification system. There is reason to believe that ADHD is currently being overdiagnosed in some areas of the United States. Prescriptions of stimulant medications, which are almost exclusively for ADHD, provide a ‘proxy’ for diagnostic rates and afford an examination of trends over time and place. Use of methylphenidate in the United States, already high by worldwide standards (International Narcotics Control Board, 1998), skyrocketed in the early 1990s, more than doubling from 1990 through 1995 (Safer, Zito, & Fine, 1996) and has continued to increase since then. While rates are up for all age groups, the largest increase is for teenagers and adults; among school-age children in one region, the proportion of high school students using stimulant medication tripled from 1991 through 1995 (Safer, Zito, &

Fine, 1996). Certainly the true prevalence of ADHD has not increased at this rate, although part of the increase no doubt reflects the detection of previously unrecognized ADHD. While some reports suggest that even now many ADHD children may not be recognized or treated (Wolraich, Hannah, Baumgaertel, & Feurer, 1998), the average rates are now quite high (Safer, Zito, & Fine, 1996). Part of the dramatic increase probably reflects overdiagnosis, particularly when considered in light of the vast disparities across geographical locales in the United States. The rate of methylphenidate consumption per capita in 1995 was 2.4 times higher in Virginia than in neighboring West Virginia, and nearly 4 times higher than in California (Spanos, 1996). Even more troubling are the high discrepancies across counties within states. For example, although the per capita rate for males of ages 6–12 in 1991 in New York was 4.1 percent statewide, rates varied by a factor of 10 among counties, ranging up to 14 percent (Kaufman, 1995). What factors might lead to overdiagnosis of ADHD? We know from epidemiological research that unreasonable prevalence rates (e.g., up to nearly 23% of school-age boys [Wolraich, Hannah, Baumgaertel, & Feurer, 1998]) are obtained when ADHD is identified based merely on simple ratings from one source, but become much lower when full diagnostic criteria – including age of onset by 7, presence across settings, and confirmation of impairment – are imposed. The wide variability in diagnostic rates across locations suggests that clinicians are applying diagnostic criteria inconsistently. Some clinicians diagnose without assessing all criteria, and often they rely only on parent reports. While underdiagnosis may be occurring in some places, overdiagnosis is occurring in others. When is overdiagnosis most likely? It seems that the diagnosis of ADHD has become fashionable for those who experience some negative life event – such as school failure or job loss – and desire to attribute such problems to a disorder rather than accept personal responsibility. This tendency is apparent even in more mundane arenas, such as feeling bored or unmotivated – ‘What a relief: the fact that I find it difficult to pay attention in my “history of Swedish cartographers” class isn’t my fault. I have ADHD.’ One safeguard against misdiagnosis is the current criteria that symptoms must appear by age 7. But how early and by what means can we detect ADHD if we agree that it is present from an early age? Since objective measures that can reliably identify ADHD are currently unavailable, we must rely on symptom reports from others. Setting the age of onset at 7 years recognizes that normal behavior patterns may be similar to symptoms of ADHD up to about age 5, when normally activity decreases and attention increases (but not in children with ADHD). Also, impairment may not occur outside the demands of a classroom environment. But if individuals do not have symptoms early but develop them later for a variety of reasons, including life situations or stress, then diagnosis does not seem warranted. Should such problems be recognized? By all means. Should they be treated? Of course, by teaching people organizational and behavior management strategies, and possibly even with medication. But significant problems in living are not the equivalent of disorders, and to call them that will deter us in the search for etiologies of ADHD. CHAPTER 15 PSYCHOLOGICAL DISORDERS For more Cengage Learning textbooks, visit www.cengagebrain.co.uk

SEEING BOTH SIDES IS ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADHD) OVERDIAGNOSED? ADHD is neither overdiagnosed nor overtreated William Pelham, SUNY Buffalo Because ADHD is the most widely diagnosed mental health disorder of childhood and because its frequency of treatment with medication has been increasing exponentially through the 1990s, it has become fashionable in many quarters – particularly among educators – to argue that it is overdiagnosed and consequently overtreated. Histrionic diatribes aside, there is no solid empirical evidence that ADHD is overdiagnosed or overtreated. First, consider the accusation that ADHD is only a relatively recent

phenomenon. To the contrary, the diagnosis was often widely used in the past but played second fiddle to other diagnoses. For example, one of the more important early studies in treatment of conduct disordered children (Patterson, 1974) noted, almost as an aside that more than two-thirds of the boys had hyperkinesis, an early label for ADHD. Thus while ADHD may well be diagnosed more often than in the past 30 years, it is simply being diagnosed more appropriately and given the prominence it deserves. It is important to note that the major reason for the increasing rate of ADHD identification in the US since the early1990s is the 1991 change in the status of ADHD in the Individuals with Disabilities Education Act (IDEA), the federal law that governs special education throughout the United States. This change included ADHD as a handicapping condition. Further, the U.S. Office of Education sent a memorandum to all state officers of education directing them to consider ADHD as a condition eligible for special education. As a result of this directive, school districts throughout the country for the first time were required to establish screening and diagnostic procedures for ADHD. The increase in diagnosis for ADHD is thus not a conspiracy or a fatal flaw in education or an indictment of current parenting practices, but is instead a natural by-product of a change in federal regulations governing education in the United States. What about the criticism that ADHD is a disorder with diagnostic rates that vary widely both within North America and across the world? The explanation is that local school districts and states vary dramatically in the degree to which they have implemented the mandated changes in the IDEA. Furthermore, ADHD when similar diagnostic criteria are applied, comparable rates to those in North America exist in a diverse collection of countries that include Italy, Spain, South Africa, Israel, Argentina, and Vietnam. The most important factor in deciding whether a mental health disorder is overdiagnosed is whether the diagnosed individuals have impairments in daily life functioning sufficient to justify the label. ADHD is a particularly compelling example of this issue because the children suffer from dramatic impairment in relationships with peers, parents, teachers, and siblings, as well as in classroom behavior and academic performance. To take a single example, in one classic study of consecutive referrals to a clinic, 96 percent of ADHD children were rejected by their peers on sociometric nominations at a rate higher than their class averages (Pelham & Bender, 1982). In the field of child psychopathology, the number of negative nominations received on a classroom peer nomination inventory in elementary school is widely thought to be the best indicator of severe impairment in childhood and poor outcome in adulthood, so this elevated rate of negative nominations highlights the impairment that ADHD children suffer in the peer domain. A corollary of the argument that many children are inappropriately diagnosed with ADHD is the complaint that these children are being inappropriately treated – usually with medication. In fact, the literature shows that only a small minority of diagnosed ADHD children (or all children with mental health disorders for that matter) receive treatment – medication or otherwise. We should be happy that treatment rates for the disorder are increasing. The dramatic rise in the treatment of ADHD – pharmacological or otherwise – clearly results from the increase in the rates of diagnosis, which are secondary to the change in the IDEA noted above. Notably, one of the studies that supports these arguments regarding impairment and treatment was conducted with children identified using only teacher ratings, which have been the main target for complaints of overdiagnosis (Wolraich et al., 1998). In summary, ADHD is the most common mental health disorder of childhood, and it is one of the most impairing and refractory, and one with poor long-term prognosis. Current diagnostic rates are in line with scientific views of the nature of the disorder. If anything, we need to accurately identify more children with ADHD and provide the evidence-based treatments – both behavioral and pharmacological – that they need. PERVASIVE DEVELOPMENTAL DISORDERS For more Cengage Learning textbooks, visit

574 CHAPTER 15 PSYCHOLOGICAL DISORDERS levels of curiosity about the environment and acquire most normal cognitive skills. Children with Asperger's syndrome tend to have IQ scores within the average range. Children with Asperger's syndrome tend to have difficulty in relationships with others and to engage in unusual behaviors (such as memorizing ZIP codes) to the point of being obsessed with arcane facts and issues. They can be rather formal in their speech, and the disorder has sometimes been referred to as the 'little professor syndrome'. A study of over 4,400 children in Finland compared the rate of Asperger's syndrome according to the ICD-10 and DSM-IV criteria, which differ slightly (Matilla et al., 2007). The ICD-10 criteria diagnosed 2.9 children per 1000 with Asperger's syndrome, and the DSM-IV criteria diagnosed 2.5 children per 1000 with the disorder. The different pervasive developmental disorders are often viewed as falling along a continuum, with autism being the most severe (and even within autism there is a range of severity) and the other pervasive developmental disorders being somewhat less severe. Thus, pervasive developmental disorders are often referred to as autism spectrum disorders. Estimates across the world suggest that 1 child in 166 is affected with some autism spectrum disorder (DiCicco-Bloom et al., 2006). Understanding pervasive developmental disorders Over the years, several theories of pervasive developmental disorders (PDDs) have been proposed. The psychiatrist who first described autism, Leo Kanner (1943), thought that autism is caused partly by biological factors and partly by poor parenting. He and later psychoanalytic theorists (Bettelheim, 1967) described the parents of children with autism as cold, distant, and uncaring (hence the description 'refrigerator mothers'). The child's symptoms were seen as a retreat inward to a secret world of fantasies in response to unavailable parents. Research over the decades has clearly shown, though, that parenting practices play little or no role in the development of autism. Biological factors Several biological factors have been implicated in the development of PDDs. Family and twin studies strongly suggest that genetics play a role in the development of these disorders. The siblings of children with a PDD are 50 times more likely to have one of these disorders than are the siblings of children without a PDD (Sigman et al., 2006). Twin studies show concordance rates for autism to be about 60 to 80 percent for monozygotic twins and 0 to For more Cengage Learning textbooks, visit www.cengagebrain.co.uk 10 percent for dizygotic twins (Bailey et al., 1995). In addition, about 90 percent of the MZ twins of children with autism have a significant cognitive impairment, compared with 10 percent of DZ twins. Finally, children with autism have a higher than average rate of other genetic disorders associated with cognitive impairment, including Fragile X syndrome and PKU (Szatmari et al., 1998). These data suggest that a general vulnerability to several types of cognitive impairment, only one of which is manifested as autism, runs in families. It seems likely that neurological factors are involved in PDDs. The broad array of deficits seen in PDDs suggests disruption in the normal development and organization of the brain (DiCicco-Bloom et al., 2006). In addition, approximately 25 percent of children with PDDs develop seizure disorders by adolescence, suggesting a severe neurological dysfunction (Fombonne, 1999). There are both macroscopic and microscopic abnormalities in neurological development in individuals with PDDs. Children with PDDs tend to have a greater brain volume, especially in the preschool years (Lotspeich et al., 2004). These children also show growth abnormalities in a number of areas of the brain, including the cerebellum, cerebrum, amygdala, and possibly the hippocampus (see DiCicco-Bloom et al., 2006). At the level of specific types of cells and neurons, these children also show abnormal growth patterns. Neuroimaging studies have been used to assess brain functioning when children with PDDs are doing tasks that require perception of facial expressions, joint attention with

another person, empathy, and thinking about social situations. These studies suggest that children with PDDs show abnormal functioning in areas of the brain that are recruited for tasks such as these. For example, when shown photos of faces, children with PDDs show less activation than healthy children in an area of the brain called the fusiform gyrus, which is involved in facial perception (see Figure 15.16; Schultz, 2005). Difficulties in perceiving and understanding facial expressions could contribute to these children's deficits in social interactions. One type of task that children with PDDs perform more poorly on compared to healthy children taps into theory of mind, which is the ability to understand that people – including oneself – have mental states and to use this understanding to interact and communicate with others (Baron-Cohen & Swettenham, 1997). Having a theory of mind is essential to comprehending, explaining, predicting, and manipulating the behavior of others. Children with PDDs often fail tasks assessing theory of mind, even when they perform appropriately on other cognitive tasks for their age group (Yirmiya et al., 1998). The absence of a theory of mind may make it impossible for these children to understand and operate in the social

Figure 15.16 Functional MRI abnormalities observed in autism. Abnormal activation of the fusiform gyrus is seen in autism. Source: Schultz RT (2005) Developmental deficits in social perception in autism: the role of the amygdala and fusiform face area. International Journal of Developmental Neuroscience 23:125–141. world and to communicate appropriately with others. Their strange play behavior – specifically the absence of symbolic play – may also represent an inability to understand anything but the concrete realities before them. Positron emission tomography studies show that children with PDDs show deficits in the medial prefrontal and amygdaloid areas of the brain when doing theory of mind tasks, that require them to take someone else's perspective (Castelli et al., 2002). CHAPTER SUMMARY The diagnosis of abnormal behavior is based on social norms, statistical frequency, maladaptiveness of behavior, and personal distress. Characteristics of good mental health include efficient perception of reality, control of behavior, selfesteem, ability to form affectionate relationships, and productivity. The ICD-10 and DSM-IV classify mental disorders according to specific behavioral symptoms. Such For more Cengage Learning textbooks, visit www.cengagebrain.co.uk CHAPTER SUMMARY INTERIM SUMMARY l The pervasive developmental disorders are characterized by severe and lasting impairment in several areas of development, including social interaction, communication, everyday behaviors, interests, and activities. They include Asperger's disorder, Rett's disorder, childhood disintegrative disorder, and autism. l Autism is characterized by significant interpersonal, communication, and behavioral deficits. Two-thirds of children with autism score in the mentally retarded range on IQ tests. l There is wide variation in the outcome of autism, although the majority of autistic children must have continual care as adults. The best predictors of a good outcome in autism are an IQ above 50 and language development before the age of 6. l Biological causes of PDDs may include a genetic predisposition and a variety of neurodevelopmental abnormalities. CRITICAL THINKING QUESTIONS 1 Parents are often very nervous that their child is not developing 'normally'. Do you think that regular screenings for developmental disorders would be a good idea? Why or why not? 2 Intensive behavioral interventions from an early age can help some children with pervasive developmental disorders to develop normal skills. Should this intervention be a right given to all children with these disorders, even though only some will benefit from it? classification systems help communicate information and provide a basis for research. Theories about the causes of mental disorders and proposals for treating them can be grouped according to those that focus on the brain and other biological factors, those that focus on the mind, including psychoanalytic,

behavioral, and cognitive perspectives, and those that focus on sociocultural and environmental factors. The

576 CHAPTER 15 PSYCHOLOGICAL DISORDERS vulnerability-stress model emphasizes the interaction between a predisposition (biological and/or psychological) that makes a person vulnerable to a particular disorder, and stressful environmental conditions encountered by the individual. Anxiety disorders include generalized anxiety (constant worry and tension), panic disorders (sudden attacks of overwhelming apprehension), phobias (irrational fears of specific objects or situations), and obsessive-compulsive disorders (persistent unwanted thoughts, or obsessions, combined with urges, or compulsions, to perform certain acts). Biological theories of anxiety disorders attribute them to genetic predispositions or to biochemical or neurological abnormalities. Most anxiety disorders run in families, and twin studies strongly suggest that panic disorder and obsessivecompulsive disorder have an inherited component. People who suffer panic attacks may have an overreactive fight-or-flight response. People with obsessive-compulsive disorder may have neurotransmitter deficiencies in areas of the brain that regulate primitive impulses. Cognitive and behavioral theorists suggest that people with anxiety disorders are prone to catastrophizing cognitions and to rigid, moralistic thinking. Maladaptive behaviors such as avoidant behaviors and compulsions arise through operant conditioning when the individual discovers that the behaviors reduce anxiety. Phobias may emerge through classical conditioning. Mood disorders are divided into depressive disorders (in which the individual has one or more periods of depression) and bipolar disorders (in which the individual alternates between periods of depression and periods of elation, or mania). Sadness, loss of gratification in life, negative thoughts, and lack of motivation are the main symptoms of depression. Biological theories attribute mood disorders to genetic factors and to problems in regulation of the neurotransmitters serotonin and norepinephrine. Cognitive theories attribute depression to pessimistic views, to rumination, and to negatively biased cognitive processes. Interpersonal theories view depression as the result of deficits in social skills and relationships. Stress, particularly family stress, plays a role in relapse in people with bipolar disorder Schizophrenia is characterized by disturbances in thought, including disorganized thought processes, delusions, and lack of insight. Other symptoms include perceptual disturbances (such as hallucinations), inappropriate emotional expression, bizarre motor activity, withdrawal, and impaired functioning. Genetic factors appear to be strongly involved in the predisposition to schizophrenia. People with schizophrenia also have problems in dopamine regulation, as well as two types of brain abnormalities: The prefrontal cortex is smaller and less active, and the ventricles are enlarged. Difficult environments probably cannot cause schizophrenia, but they may worsen the disorder and contribute to relapses. Personality disorders are lifelong patterns of maladaptive behavior involving coping with stress or solving problems. Individuals with antisocial personalities are impulsive, show little guilt, are concerned only with their own needs, and are frequently in trouble with the law. Antisocial personality disorder may have genetic and biological roots. Neglectful and hostile parenting may also contribute to the disorder. People with borderline personality disorder show instability in mood, self-concept, and interpersonal relationships. Psychodynamic theories suggest that the caregivers of people with this disorder required their children to be highly dependent and alternated between extreme expressions of love and hostility. Other theories attribute the disorder to extreme difficulties in emotion regulation. The pervasive developmental disorders are characterized by severe and lasting impairment in several areas of development, including social interaction, communication, everyday behaviors, interests, and

activities. They include Asperger’s disorder, Rett’s disorder, childhood disintegrative disorder, and autism. Genetic and neurodevelopmental factors are involved in the pervasive developmental disorders.

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